

# RADIO

and  
Television

# RETAILING

JANUARY • 1941

A McGRAW-HILL Publication Price 25c



MEET NO. 1  
CALLED BY C.D.  
ENTERED BY V.Z.  
INVENTORY ACME RADIO Co  
DEPARTMENT RADIO  
LOCATION ON FLOOR

PRICED BY A.K.  
EXTENDED BY —  
EXAMINED BY Mace

CHECK	QUANTITY	DESCRIPTION
✓	26	COMPACTS
✓	11	CONSOLES
✓	4	COMBINATIONS
✓	3	-

PRICE	EXTENSIONS
\$216.16	X
549.22	X
410.85	X
78.25	X

Radio Co  
Radio  
for

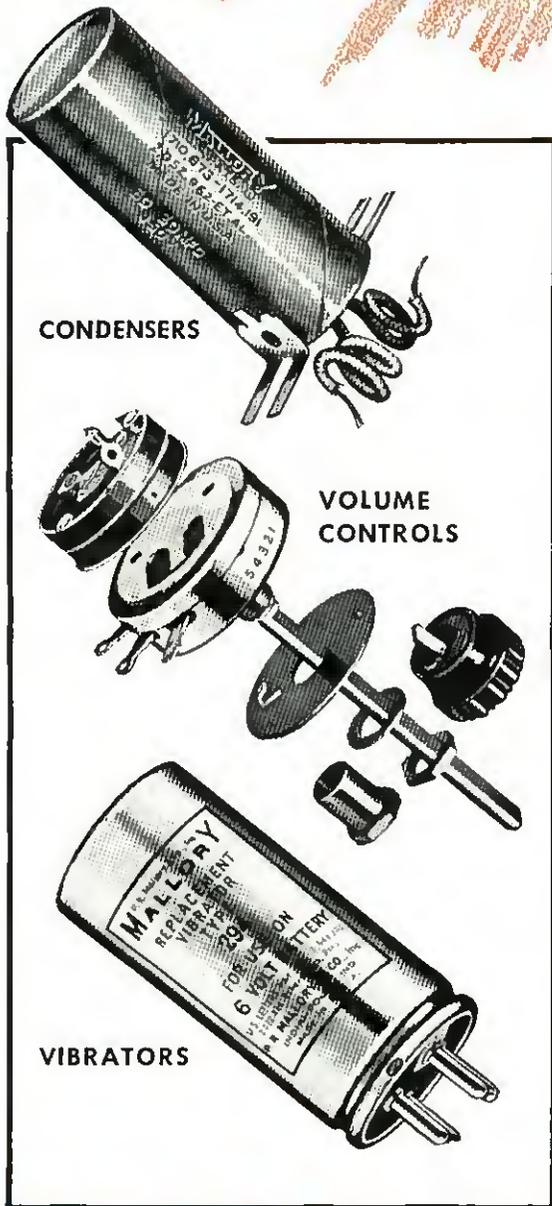
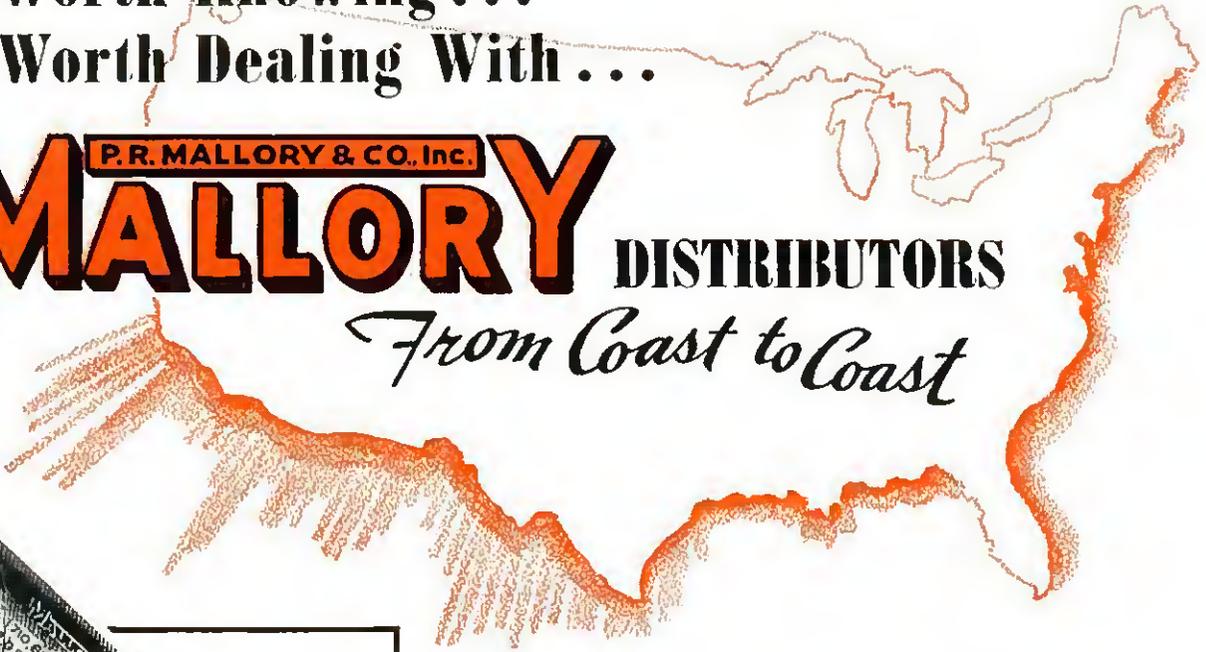
PRICED BY A.K.  
EXTENDED BY —  
EXAMINED BY Mace

PRICE	EXTENSIONS
\$216.16	X
549.22	X

NEW YEAR Selling Starts With the Stock Sheet

Well Worth Knowing...  
Well Worth Dealing With...

P. R. MALLORY & CO., Inc.  
**MALLORY** DISTRIBUTORS  
*From Coast to Coast*



THE complete picture of Mallory's service to the replacement field extends far beyond the outstanding excellence of the products themselves. In developing the distribution for its products, Mallory has exercised the same painstaking care that has gone into product development itself.

The result is a handpicked group of leading distributors strategically located and qualified technically for superior service. Each is an organization whose business ideals parallel Mallory's own high standards of integrity.

Get acquainted with your nearest Mallory distributor now. You may rely upon him for genuine Mallory approved precision products, and for high standards of quality in all of his business transactions.

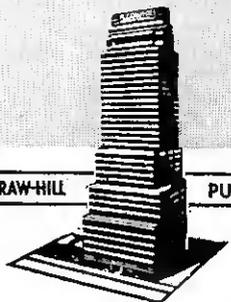
P. R. MALLORY & CO., Inc.  
INDIANAPOLIS INDIANA  
Cable Address—PELMALLO

More than ever  
—INSIST ON

P. R. MALLORY & CO., Inc.  
**MALLORY**  
APPROVED  
PRECISION PRODUCTS

VIBRATORS • VIBRAPACKS • CONDENSERS •  
VOLUME CONTROLS • ROTARY SWITCHES •  
SINGLE AND MULTIPLE PUSH BUTTON SWITCHES  
• RESISTORS • RADIO HARDWARE

# RADIO and Television RETAILING



A MCGRAW-HILL

PUBLICATION

JANUARY 1941

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SALES STATIC . . . Year after year you say the same thing—"Wait until the new sets come out!"

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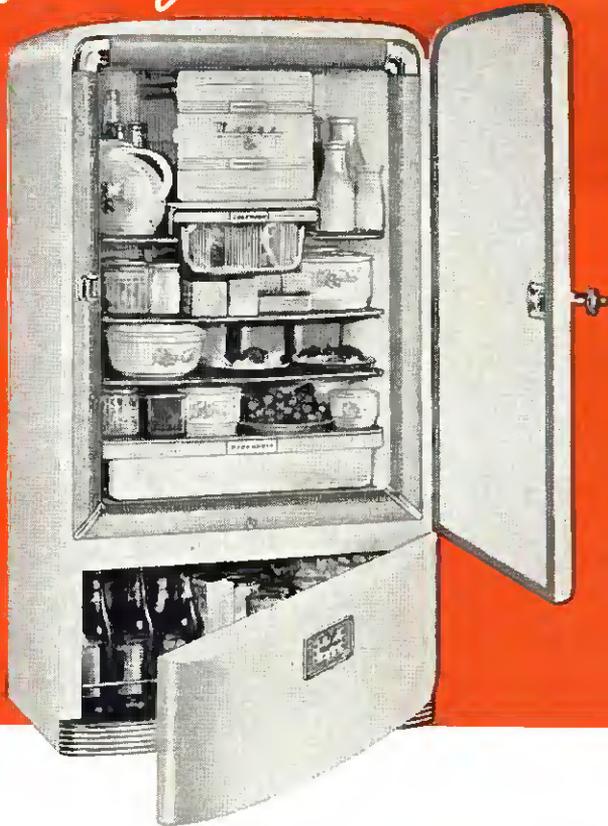
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*With features like the* **NORGE NIGHT-WATCH\***  
 you can **SELL UP** from Price-  
 Tag Competition...



\*NORGE NIGHT-WATCH automatically defrosts freezer EVERY NIGHT for top-notch refrigeration all day, EVERY DAY!

**THERE'S THE GREAT-  
 EST BUYING FEATURE  
 OF ANY YEAR!**



**FEATURES OF NORGE SUPER DE LUXE "66"—MODEL S-663**

1. Over-size food compartment, 6.6 cubic feet
2. 13.17 square feet of shelf area
3. 4 full shelves—1 with insert
4. Chrome shelves with curved guard-rail fronts
5. Exclusive Safety-Sealed Fast-Freezer—odor and flavor-proof to assure tasteless ice cubes
6. Refrigerated freezer shelf
7. 4 easy-out mechanical ice trays
8. 70 ice cubes (10 lbs.)
9. Exclusive Night-Watch Full Automatic Defroster
10. Beautiful chrome trimmed Night-Watch Electric Clock; fine quality; parts sealed in oil; large second hand; self-starting
11. Exclusive Norgé Handdefroster
12. Sliding covered Coldpack meat drawer
13. Full width sliding glass-covered Hydrovoir vegetable drawer
14. Porcelain interior with acid-resisting bottom
15. Exclusive big Cellaret reserve storage
16. 6 Big Zones of food storage—
  - 1) Freezing Zone for ice, salads, desserts, frozen foods
  - 2) Beverage Zone for milk, ginger ale, etc.
  - 3) Extra Cold Zone for fresh meats
  - 4) General Cold Storage Zone
  - 5) Cold-Moist Zone for green vegetables
  - 6) Reserve Storage Zone for bottles, canned goods, etc.
17. Automatic electric floodlight.
18. Norgite insulating door panel
19. Genuine, nationally advertised, Fiberglas insulation
20. Hollywood beauty cabinet
21. Beautiful chromium hardware
22. New Lazilatch door handle giving finger-tip opening and closing
23. Set of refrigerator dishes (oven ware)
24. Famous Quiet-Flo Rollator Cold-Maker
25. Exclusive Motor-Cooler gives exceptional cold making efficiency, assures long life
26. Curved throat lining of silver plastic with chrome trim
27. Stainless steel base trim



The Norgé dealer can talk price-tags too, of course, but he can talk consumer language that is a lot more profitable . . . FEATURES.

The Night-Watch, for example, completely defrosts the freezer automatically, every night at midnight, and reduces defrosting attention to once-a-week emptying of the Handdefroster. This is ONE GREAT IMPROVEMENT women have been waiting for—REAL AUTOMATIC DEFROSTING—perfected by Norgé because Norgé already had the exclusive Sealed Freezer, Covered Coldpack and Handdefroster—all of which are necessary to real automatic defrosting.

This improvement will go big with every buyer; particularly the replacement buyer because it marks the greatest difference between what she has, and the most up-to-date refrigerator she can buy.

And Norgé has plenty of other features that make grand salesroom and living room talk. These features "step-up" in logical sequence from great value lowest-priced models to the big capacity Super De Luxe "Nine." They carry the prospect away from price-tags, toward the product she needs and should have, with the profits you need and must have. Norgé, with the only complete "family" of home appliances, offers you the greatest year-'round profit opportunity in the appliance industry. Write for details.

NORGE DIVISION BORG-WARNER CORPORATION, DETROIT, MICHIGAN

**See NORGE before you buy**

NORGE QUIET-FLO ROLLATOR REFRIGERATION • GAS AND ELECTRIC RANGES • WASHERS  
 HOME HEATERS • GAS AND ELECTRIC WATER HEATERS • COMMERCIAL REFRIGERATION

**NORGE**

*Quiet-Flo* ROLLATOR REFRIGERATION

# Announcing

a New Development by  
One of America's Best  
Known Manufacturers in  
the Radio Parts Industry



## EXCLUSIVE PUSH-PULL FEATURE

Turner Vibrators do not depend on the springing action of steel, but employ an equal amount of magnetic power to PULL, then PUSH the reed and its contacts. A harder-faster swing of the reed gives you a cleaner, more positive contact. The rolling, wiping action of the contact means a large, clean contact every time. Piling and chattering are eliminated and R. F. hash reduced. Mechanical noise takes a real licking, too.

## CONTACT POINTS MICRO ADJUSTED AT FACTORY

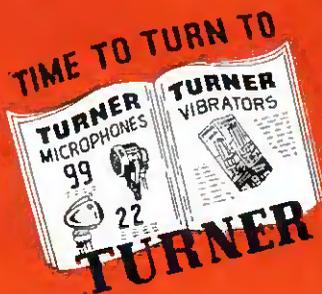
Adjustable screws, held in place with lock nuts, permit micro adjustment of contact points at the factory. You're sure of a precision adjustment with sure-fire operation. Customer complaints and extra servicing eliminated.

## STACK TYPE ASSEMBLY ELIMINATED

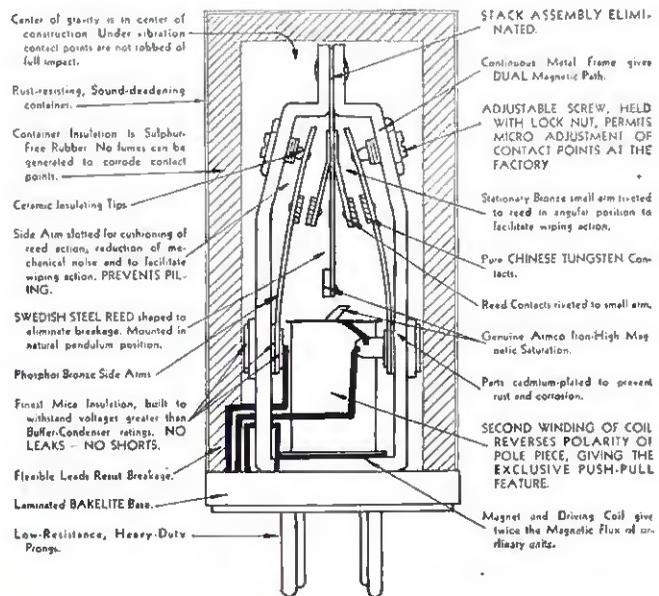
The old-fashioned stack type assembly is done away with in Turner Vibrators. Instead, you get 100% closed dual magnetic path, with increased efficiency. You're safe from short circuits caused by deterioration or slipping insulation, common to old type stack assemblies.

## IT COSTS NO MORE

See for yourself the 10 definite engineering advancements in a Turner Vibrator. You get ALL THESE at NO ADDITIONAL COST. The Turner Vibrator MANUAL is FREE. Ask Your Jobber TODAY, or write The Turner Co., Cedar Rapids, Iowa.



Not just another Vibrator — but a Vibrator with 10 engineering advancements that FREE YOU from customers' irksome complaints and keep users happy with your service. Turner Vibrators give you more stable operation, longer life and fewer servicing headaches. You'll like the exclusive Push-Pull feature — the self-cleaning contacts — the micro adjustment of the contact points at the factory — the elimination of the old type stack assembly — the low drain and the high output. Each unit is packed in factory-sealed cartons — your assurance of new merchandise. Cartons have open terminals for testing the Vibrators. Guaranteed for One Year by the same manufacturer who makes the famous Turner Microphones. Available in models to meet all replacement calls. See for yourself what a Turner Push-Pull Vibrator will do! Ask your Jobber Today, or write The Turner Co., Cedar Rapids, Iowa.



# UTAH KEPT 6,263,126



G. Hamilton Beasley, *President*

Last year the Utah organization solemnly resolved to provide parts for the radio industry which would not only meet its own rigid engineering standards but which would set new *value* standards for manufacturers, retailers, servicemen and consumers.

During 1940 Utah furnished 6,263,126 parts to the Radio Industry. Each one is evidence that the resolution was being kept — each one representing a greater value for *you*.



J. W. Caswell  
*Vice-President*



W. Dumke  
*V.-P., Charge of Prod.*



H. S. Neyman  
*Secretary & Treasurer*



O. F. Jester  
*General Sales Manager*



W. A. Ellmore  
*Chief Engineer*



C. L. Walker  
*Asst. Chief Engineer*

**UTAH RADIO PRO**  
**SPEAKERS • TRANSFORMERS**  
**820 ORLEANS STREET**

# GOOD RESOLUTIONS

You are assured that in 1941 Utah's engineering and designing will keep abreast of all industry developments; that Utah's manufacturing skill will produce even greater values; that Utah products will continue to be distributed through the recognized channels only; *and that Utah will serve you better than ever before.* Utah Radio Products Company, 820 Orleans Street, Chicago, Illinois. Canadian Office: 560 King Street West, Toronto. In Argentine: Ucoa Radio Products Co., SRL Buenos Aires. Cable Address: Utaradio, Chicago.



Peter L. Jensen, Vice-President



J. M. Hume  
Sales Engineering



W. H. Edwards  
Sales Engineering



R. M. Karel  
Sales



R. R. Hutmacher  
Sales



P. H. Heckendorn  
Sales



F. E. Ellithorpe  
Sales

**DUCTS COMPANY**  
**VIBRATORS • UTAH-CARTER PARTS**  
**CHICAGO, ILLINOIS**



*Extras for the consumer  
mean extra profit for you*

Choose by comparison! That's what *your* customers are going to do! Why don't *you* do the same? What do you need to sell refrigerators and make money? Is it beauty? Performance? Deluxe equipment? Dependability? Economy? A complete line? A "break" on price? Gale gives you *all* these things *plus* a clean-cut, straight-from-the-shoulder deal that lets *you* make money.

Gale lets you give your customer more for his money without cutting into your own margin. Prospects recognize and appreciate Gale 'extras'! Get Gale on your floor. Turn these prospects into sales!





**GALE 6-ft.  
"Royal"**



**GALE 6-ft.  
"Regal"**



**GALE 4-ft.  
"Compact"**



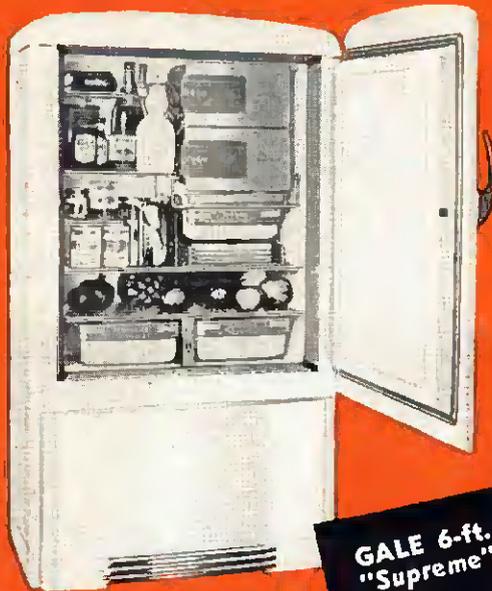
**GALE 6-ft.  
"Challenger"**



**GALE 6-ft.  
"Champion"**



**GALE 8-ft.  
"Commodore"**



**GALE 6-ft.  
"Supreme"**

### Full Range of Sizes, Price, Equipment

7 models. Fewer to stock — less money in inventory. BUT — they cover the whole market, so that "step-up" selling is logical and easy. There are no "leaders" — each step *up* gives *you* more profit. No quotas, no high pressure to handicap your selling.

**"GALE BUILDS REFRIGERATORS  
THAT SELL — — — AND PAYS  
YOU WELL TO SELL THEM.  
GET STARTED TODAY"**



# GALE PRODUCTS

GALESBURG, ILLINOIS, U. S. A.

Refrigeration Division:  
Outboard, Marine and Manufacturing Co.

GALE Products  
1627 Monmouth Blvd.  
Galesburg, Illinois  
Gentlemen:

I want to know *all* about the Gale for 1941. Rush full information.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

# Farnsworth

## VALUES STILL LEAD

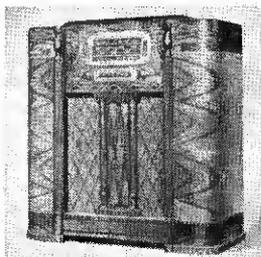
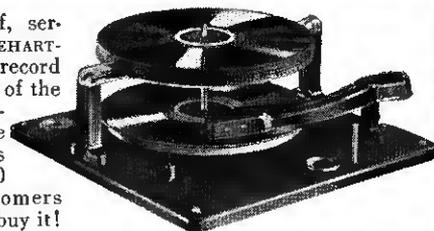
● 1941 sees Farnsworth dealers well out ahead with VALUE-LEADERS that the public "snaps up."

For today's market, Farnsworth offers dealers the most salable and profit-producing line available. Typical leaders are shown below. Every one has proved it's got "buy me" oomph . . . *competitive* from *any* angle. Outstanding profit-builders in themselves, these are only the forerunners of amazing Farnsworth announcements to come.

For tomorrow's market, Farnsworth will again have sensational new numbers . . . keyed to *tomorrow's demands* . . . sales-stars that will continue to measure up to the Farnsworth record of SUCCESS.

Get the new Farnsworth profit story that is now making more sales—more profits—for wide-awake dealers. See your Farnsworth distributor at once. Or wire, phone or write to FARNSWORTH TELEVISION & RADIO CORPORATION, FORT WAYNE, INDIANA.

The fool-proof, service-free CAPEHART-FARNSWORTH record changer is one of the biggest sales-builders in the industry. Plays 14 tens or 10 twelves. Customers see it, *play* it, buy it!



**BC-82.** This lowboy console is a marvelous performer in a distinctive cabinet.



**BT-70.** Beautifully styled, this table model looks like a small console. Real quality for little money.



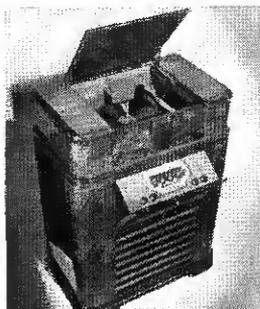
**BT-61.** A superb instrument for both tone and cabinet-work. Compact and modern. At a "take-away" price!



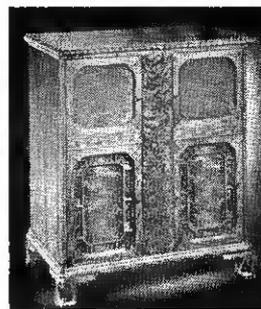
**BT-55.** This handsome, ultra-modern table model is really smart styling! A honey for the money. Excellent tone.



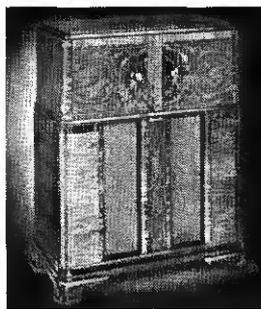
**BT-71.** A distinguished model, unusual in its period trim, and richly grained woods. At a price that says "Buy me."



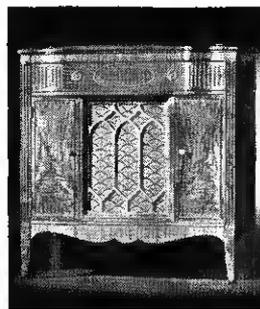
**BK-88 (Empire)** has "Tip-Top Tuning." Simply pull out convenient dial panel that's "always at hand whether you sit or stand." Many features for little cost.



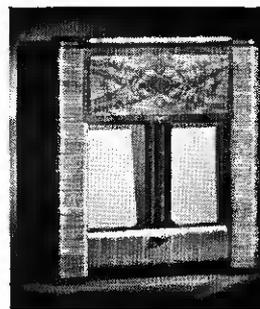
**BK-112 (Jefferson).** This splendid example of fine period designing is tops in the Farnsworth line! In mahogany or walnut. A knockout for the carriage trade!



**BK-89 (Regency).** Here is a great big package for the money! Features front opening doors—a clinching sales point to a tremendous number of prospective customers!

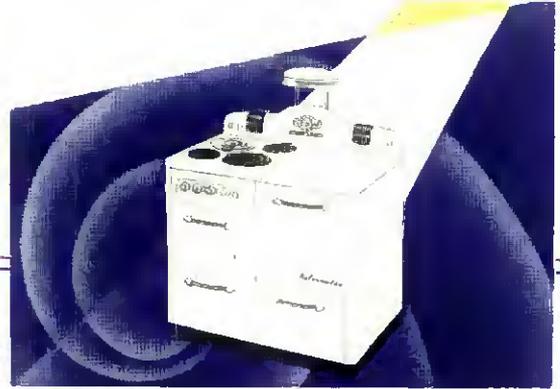


**BK-87 (Stratford).** This impressive, fast-moving combination has great appeal for those who want period furniture. Available in either mahogany or walnut.



**BK-85 (Modern).** This combination sells itself on sight! Conservatively modern, classically simple. Also available in blond. A sales-producing bargain!

**FARNSWORTH** • MAKERS OF RADIOS AND TELEVISION TRANSMITTERS AND RECEIVERS, THE CAPEHART, THE CAPEHART-PANAMUSE AND FARNSWORTH PHONOGRAPH-RADIO COMBINATIONS.



# Another Frank Statement

*An announcement of Kelvinator's 1941 Program and how it assures even greater profits to Kelvinator retailers*

by FRANK R. PIERCE, General Sales Manager  
Kelvinator Division, Nash-Kelvinator Corporation

**L**AST YEAR Kelvinator retailers made money. In fact, with sales more than 2¼ times those of the year before, we are told by many retailers that this was their best profit year in the refrigeration business.

This was the natural and expected result of Kelvinator's radically different 1940 Program—which brought to the industry as a whole the greatest volume it had ever enjoyed.

It is only natural that the industry today should be watching Kelvinator with the keenest interest—waiting for Kelvinator's next statement of policy.

Now is the time to make that statement.

• *The Kelvinator plan of 1940 was only the first step in a far more inclusive program*—one that has been conceived from the beginning with the needs of the refrigerator retailer—the man who built our industry—as the primary consideration.

I have made the statement many times that it is within the power of the manufacturer and the distributor to relieve most of the problems refrigeration retailers are faced with. I make that same statement again now and say that Kelvinator is determined to continue its efforts in that direction.

Because retailers told us there were too many models, one of the outstanding accomplishments of last year's program was our concentration on fewer models—the big six and eight cubic foot models that people really want.

• *This year we have condensed an entire line of refrigerators into exactly eight models*—six six-footers and two eight-footers. Your inventory investment is less—our manufacturing program is again simplified.

Because we were determined to enable Kelvinator retailers to meet all types of price competition, the announcement last year of Kelvinator's new prices electrified everyone who had anything to do with refrigerators. This year's prices are just as sensational.

• *Kelvinator not only has a more effective price program again—but even more important we have built enormously greater value into every model in the line.*

Which brings me to one of the most significant features of the entire 1941 platform.

Salesmen had told us it was almost impossible to logically justify the price differences between low-priced models and fully equipped models.

The Kelvinator Step-up Plan of 1940 you hailed as the best ever devised. In fact, it proved so successful that 80 per cent of all Kelvinator sales averaged \$160.23.

• *The Kelvinator Step-up Plan of 1941 is a salesman's dream.* Briefly, it is based on a price scale in which the exact value of the features in every model determines its cost.

Kelvinator salesmen will not have to justify a substantially higher price on the basis of obviously inexpensive gadgets.

The 1941 Kelvinator Step-up Plan is so logical and so easy to visualize that we say Step-up *Buying* will replace Step-up *Selling*.

And the models which your prospects will buy most readily are the ones on which your profits are the greatest.

Retailers have told us that there are too many competing outlets for electric refrigeration.

Last year we inaugurated a plan to limit the number of dealers in each community so that each dealer could obtain a sufficient volume at full retail prices to make a real profit. This plan proved highly successful.

• *This year we are projecting an even more comprehensive system of protected markets,* which can be summed up in the phrase—"A dealer for every market—a market for every dealer."

I come now to the climax of our 1941 story.

No plan—no program—however carefully con-

ceived and executed, can be lastingly successful without an outstanding product.

Kelvinator has that product.

• *A brand new refrigerator.*

• *A new kind of refrigerator.*

And, frankly, we're as proud of the 1941 Kelvinator as a father with his first son.

But no words of ours can possibly give you a true picture of the beauty of this new and utterly different 1941 Kelvinator. When you see it I think you will agree with the people who call this "The Most Beautiful Refrigerator in the World."

• And, in addition, Kelvinator retailers will welcome the news that for 1941 the Kelvinator Electric Range Program will be just as aggressive and just as complete as the Kelvinator Electric Refrigerator Program. The same principles apply—fewer models—increased production—lower prices—and a profitable franchise.

We're getting off to a fast start in 1941.

And I frankly believe that this is going to be the biggest and most profitable year we and our retailers have ever enjoyed.

We've burned a lot of midnight oil to create an unbeatable combination of product, price and strategy.

This is the year to cash in.

I suggest that you get in touch immediately with your nearest Kelvinator distributor or factory branch.

Or, if you like, communicate with me direct.

General Sales Manager  
KELVINATOR DIVISION

Nash-Kelvinator Corporation, Detroit, Mich.

# Introducing a New

**STEP-UP BUYING  
REPLACES  
STEP-UP SELLING**

AND FOR \$10 MORE

AND FOR \$15 MORE



**Model SS-6**—A big 6¾ cu. ft. model. New Kelvalyte trim on cabinet throughout to replace old-style breaker strip. There's a big Moonstone glass chill tray under the Freezer Unit. Two extra-fast Freezing Shelves give an 84 ice cube capacity—9 lbs., 11.8 sq. ft. shelf area. Plus all of the basic 1941 Kelvinator features listed at the right. . . . **\$114.75\***  
Price is only

**Model D-6**—A 6¾ cu. ft. equipped model. Has a big Sliding Kelvin Crisper with porcelain top. Easy-to-clean, stainless steel Cold-Ban. Moonstone glass Cold Chest. Two extra-fast Freezing Shelves. 4 Pop-out Ice Trays with 64 ice cubes—8 lbs. capacity. 11.8 sq. ft. of shelf area. Plus all of the famous basic 1941 Kelvinator features. . . Only **\$124.95\***

**Model S-6**—Completely equipped 6¾ cu. ft. model. 5-Way Magic Shelf. Glass-covered Sliding Crisper with increased capacity. Moonstone glass Meat Chest with glass cover. Stainless Steel Cold-Ban. Vegetable Bin. Sliding half-shelf. 4 Pop-out Ice Trays with 64 ice cubes—8 lbs. capacity. 11.8 sq. ft. shelf area. 2 extra-fast Freezing Shelves. **\$139.95\***  
Plus all basic 1941 Kelvinator features. . . Only  
In 8¾ cu. ft. size Model S-8 only \$179.95\*



FOR months now the little man in the Kelvinator ads has been saying "You ain't seen nothin' yet."

Well, here it is—the answer to a merchant's prayer—a sweetheart in gleaming enamel and stainless steel and crystal-clear glass.

And a step-up plan so logical—so fool-proof—that you no longer have to *sell* them up—they *buy* up!

• The '41 Kelvinator not only *looks* different—it *is* different.

The cabinets are one piece sides and top, welded, rigid steel—not a tooth-pick of wood anywhere. And although sizes have been increased so that a six-foot model is now more nearly seven feet in size, the rear of the shelves are inches nearer the front than before.

And around the door opening is the gleaming Cold-Ban of Stainless Steel, which eliminates

some 80 hard-to-clean screw-heads found on conventional refrigerators.

• Look at the new Kelvinator again—for *Extras*.

From Model SS-6 to Model D-6—an easy jump of just ten dollars—and your customers get a big Sliding Crisper—Stainless Steel Cold-Ban—Moonstone Cold Chest—4 Pop-out Ice Trays.

• Then step up to the famous model S-6—(counterpart of the most popular model offered to the public all last year)—an easy jump of just fifteen dollars—and look again. A new kind of Sliding Crisper with a clear-glass cover . . . 30% bigger than last year. An amazing new Magic Shelf that gives you five finger-tip adjustments and makes possible one of the cleverest and easiest demonstrations ever devised. Salesmen get a big kick out of this easy-to-do Magic Show. And underneath—a Vegetable Bin that holds a bushel and a quarter of dry vegetables.

• Then step up to Model R-6—a jump of only \$15 and see what *Extras* you can offer. This

used to be a \$30 to \$40 jump at the very least.

Ninety-nine cubes of ice—12 pounds—50 per cent more than the S-6—not just one Crisper but *two*, covered in gleaming glass—a Removable Freezer Shelf—a double width Dessert Tray—Complete Deluxe Equipment.

• Step up again—and you have the PS-6—twin of the S-6 except that it's a *Porcelain* cabinet for only \$20 more.

• Then move on to the crowning achievement of the Kelvinator line—the Moist-Master for 1941—a new kind of refrigerator and a new kind of refrigeration.

It's just twenty dollars higher in price—and it's so beautiful it takes your breath away.

Shelves are of crystal clear glass. And it offers an entirely new principle of refrigeration.

In addition to the coils that freeze ice, there's a separate set of coils concealed in the walls. These *refrigerating* coils maintain correct humidity and temperature *throughout*. No

# Kind of Refrigerator

## 1941 Kelvinators have these Important Features

One-Piece sides and top, welded cabinet construction—no seams—no crevices to collect grimy dirt.

All-Steel cabinets—there's not a tooth-pick of wood.

Gleaming Permalux exteriors, with Porcelain-on-steel interiors. (Model PS-6 has Porcelain-on-steel exterior and interior.)

New automatic Polar Light that lights up the interior of the Freezer Unit as well as the cabinet.

Space for Frozen Foods.

Stainless Steel, High-Speed Freezer with Porcelain-finished door.

Kelvin Cold Control with 13 settings and "off".

We believe the famous Polarsphere Sealed Unit has the greatest record in the industry for service-free performance.

AND FOR \$15 MORE



AND FOR \$25 MORE



**Model R-6**—Complete *Deluxe* equipment and styling. 6¾ cu. ft. size. 99 ice cubes—12 lbs. . . . 50% more than S-6. Not just one but two glass-covered Sliding Crispers. 5-Way Magic Shelf. Stainless Steel Cold-Ban. Vegetable Bin. Moonstone glass Meat Chest with glass cover. 2 extra-fast Freezing Shelves. 4 Pop-out Ice Trays, plus double width Dessert Tray. \$154.95\* 12.6 sq. ft. shelf area. . . . . Only

**Moist-Master Model M-8**—6¾ cu. ft. in size. Has glass enclosed Cold-Mist Freshener. All shelves of heavy crystal-clear glass. Moonstone glass Meat Chest. 2 extra-fast Freezing Shelves. 4 Pop-out type Ice Trays, plus double width Dessert Tray. 99 cubes—12 lbs. capacity. 12.6 sq. ft. shelf area. \$179.95\* Stainless Steel Cold-Ban. Vegetable Bin. . . . . Only

In 8¾ cu. ft. size Model M-8 has 4 Speedy-Cube type Ice Trays plus double width Dessert Tray. 107 cubes—12 lb. capacity. Only \$209.95\*

\*Porcelain Model PS-6—With all features of S-6 plus porcelain-on-steel exterior. . . . Only \$159.95\*

\*Prices suggested are for delivery in the kitchen with 5 Year Protection Plan, State and local taxes are extra. Prices are slightly higher west of the Rockies.

need to cover dishes. In the super-moist glass-enclosed Cold-mist Freshener, still air, wall-cooled, guards food freshness . . . protects precious vitamins.

• Add to these big 6-cubic ft. Kelvinators the two eight-foot models—and you have a model to meet every requirement.

You have, in fact, *Step-up Buying*.

• For each successive model in the line is easier to sell than the model before it.

You can see right now why Kelvinator retailers are in for a whale of a big and profitable year.

• It's the most important *new* refrigerator achievement in years. It makes the owners of conventional refrigerators dissatisfied. It offers definitely and demonstrably *more of everything*.

And we're not going to hide our light under a basket, either.

Kelvinator today is *News* and we're going

to make sure that that news gets the break it deserves.

• Four-color magazines spreads and pages, Newspapers, Spot-Radio—all will blast out the Kelvinator message. "Look at the Beauty—Look at the Extras—Look at the Price . . . Get More . . . Get Kelvinator."

• There it is—Product—Price—and Selling Punch. Add to it the one all-important ingredient—You—the Progressive Retailer—and you have the Success Story of 1941.

*Look at the Beauty!*  
*Look at the Extras!*  
*Look at the Price!*

A MARKET FOR EVERY DEALER • A DEALER FOR EVERY MARKET

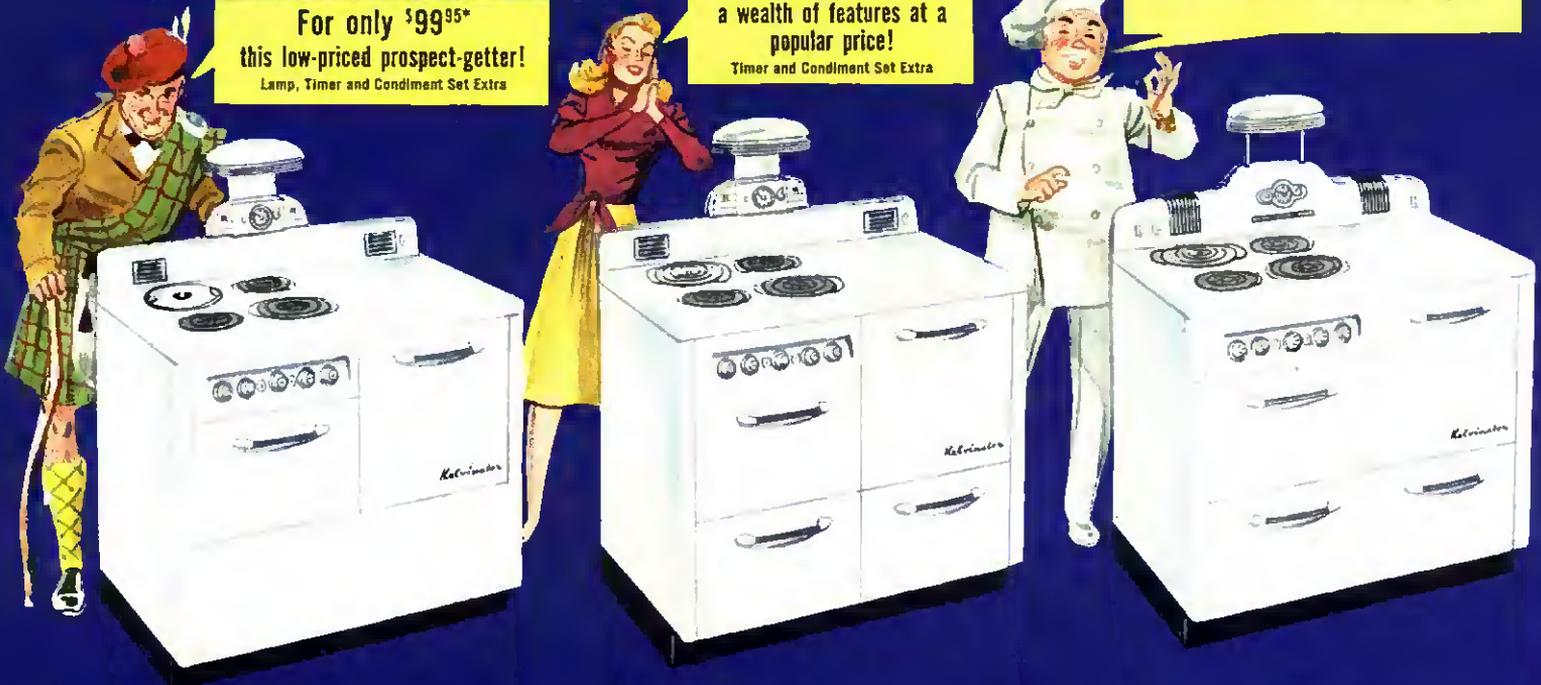
# and a Radically New Range Program

**A complete Line of Ranges  
Telescoped into Three  
Amazing Values**

**For only \$99<sup>95\*</sup>**  
this low-priced prospect-getter!  
Lamp, Timer and Condiment Set Extra

**For only \$139<sup>95\*</sup>**  
a wealth of features at a  
popular price!  
Timer and Condiment Set Extra

**For only \$169<sup>95\*</sup>**  
a deluxe model at a sensational price!



**Model ER-411**—One-piece "wrap-around" steel body—5-Heat silver contact surface unit switches—combination oven switch and thermostat with automatic pre-heat cut-off—"Broil" and "Bake" pilot lights—2-unit oven—Fiberglass insulation—6-Quart Scotch Kettle—Ball-bearing storage drawer.

**Model ER-413**—Popular priced model with all features of Model ER-411, and many extras—7-Heat Surface Unit switches with individual flood lights that indicate when switches are "on"—Deluxe-type Scotch Kettle with self-basting lid—Automatic light in oven—Three ball-bearing storage drawers—Non-glare top lamp.

**Model ER-417**—All Deluxe "extras"! Built-in Cooking Timer combining electric clock, computing Timer, and "Minute Minder". Selector Switch connecting Timer with oven, Scotch Kettle or appliance outlet—Warmer-Drawer with automatic temperature control—Deluxe Scotch Kettle with insert pan, basket, and thermometer.

*\*Suggested prices delivered in the kitchen east of Rockies—slightly higher west of Rockies. Wiring, if any, and state and local taxes extra.*

"It worked with refrigerators—now let's apply it to ranges!" That summarizes the 1941 strategy for the Kelvinator Electric Range.

For this is Kelvinator's year.

The '41 range program is just as logical, just as certain of success as that which startled the Refrigeration Industry last year.

The objectives are the same—to crack open a vast new market—to meet and defeat the competitive price situation—to simplify dealers' selling, stocking and investment problems—to enable dealers to make more profits.

And the same proved methods have been applied—fewer models, meaning lower production costs—vastly increased production and sensationally lower prices that smash the greatest obstacle encountered in range selling.

For 1941 Kelvinator telescopes a complete line into three models. That means a smaller investment for you, a simplified display problem, an easy line for salesmen to master and sell, and an easier choice for buyers.

PRICES ARE FROM \$20 TO \$30 LOWER THAN

THOSE OF COMPARABLE MODELS LAST YEAR. Starting with a low-price basic model at less than \$100, the line leads buyers easily through only one intermediate step to the deluxe model.

But one of our Biggest features is Kelvinator's answer to the problem "How to Sell the Prospect." We're filling this need with a practical "down-to-brass-tacks" program!

Focal point of the entire program is the brand new Kelvinator "Salesmaster"—a most beautiful, practical and THOROUGH selling tool—a

complete presentation of all you need to sell electric cooking and Kelvinator Electric Ranges. Plus other time-proven selling aids—national advertising, local advertising, sales training, store demonstrations, traffic building promotions. And THE MOST ATTRACTIVE STOCKING DEAL YOU'VE EVER BEEN OFFERED.

Get in touch with your nearest distributor or factory branch—or wire or write to *Range Division, NASH-KELVINATOR CORPORATION, DETROIT, MICHIGAN.*

**Get More — Get KELVINATOR**

Another

## RAYTHEON TUBE EQUIPPED SCIENTIFIC CREATION

### THE SMITH ARC-LENGTH MONITOR WELDING CONTROL

The Arc-Length Monitor, developed by A. O. Smith Corporation, is a modern production tool which guides the arc-welder to make uniformly sound and perfect welds.

Tiny electric bulbs inside the welder's shield automatically warn the operator when his arc is too long or too short. The glows of the bulbs increase in brightness as the welder deviates from the correct arc length. Only when the arc is of proper length for the job—i. e., making a good weld—are both the lights off.

An intricate electronic circuit, using six RAYTHEON tubes, is the brains of this device, which is made by the RAYTHEON Equipment Division for the A. O. Smith Corporation.

It is not a coincidence that when radio tubes are used in particularly critical circuits you find them to be RAYTHEONS. And they are the same tubes the better Servicemen use as replacements. There is no finer quality, yet *they cost no more.*

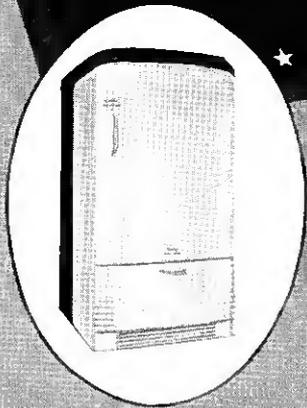
Your RAYTHEON Distributor has an unusual tube deal for you. See him without delay.



WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS

# CROSLLEY Announces

AN ENTIRELY NEW LINE OF QUALITY REFRIGERATORS  
**BIGGER, MORE BEAUTIFUL, MORE  
 USABLE THAN ANYTHING ELSE  
 IN THE INDUSTRY!**



Plus A New  
**CROSLLEY Big**  
 Low-priced "6"



For Only  
**\$99.95\***

The lowest price ever offered for a 6 cubic foot model with a nationally-advertised name! Packed with traffic-building, promotional power!

Entirely new appearance for a Crosley at this price—with enough features to make this the outstanding value on the market for a "6" at anywhere near this price!

\*Prices slightly higher in far west.

## Only Five Popular-Sized, Fast-Selling Models 3 "Sixes" — 2 "Eights"

CROSLLEY introduces the finest line of refrigerators it has ever built! New engineering, new manufacturing processes and an entirely new design bring the new models to the forefront as quality products from every standpoint—make them the No. 1 choice for 1941!

RETAILERS will appreciate the profit opportunity in a line of only 5 popular-sized, fast-selling models—3 "sixes" and 2 "eights." Maximum sales opportunity with minimum investment and minimum inventory!

SALESMEN will enthuse over the new line because it offers more selling advantages than any other on the market—*one of them the greatest in the industry!* Paced by the new "Super SHELVA-DOR," these new Crosleys have every worthwhile feature, every mechanical advantage of recognized value in the industry. The 1941 Crosley refrigerators are *competitive in every respect!*

Two new "Moist-Kold" models embody the newly-popular, fast-growing high humidity principle at its very best. The Crosley method of retarding dehydration *combines* humidity and air circulation in *proper relationship!* Yes, the Crosley "Moist-Kold" models will place in the hands of Crosley dealers and salesmen

*still another strong competitive selling advantage!*

The "Super Shelvador" feature—patented by Crosley—will sweep the nation. Entirely new and more permanent type of construction enhances the appearance of the door as well as the entire cabinet. It's wider. It's higher. It holds more. And for the first time it provides an entire shelf for bottles!

Every model in the new line features the Freezorcold separate storage compartment for frozen foods in addition to ice-tray storage. Just another selling advantage in this most modern, most complete refrigerator ever built!

Never before has there been a line of refrigerators combining so much quality with such sales appeal! The greatest national advertising in Crosley history will translate these many advantages into consumer demand!

For further information, or an invitation to view the complete line of new models, get in touch with your nearest Crosley distributor. Or communicate direct with factory headquarters—by letter, phone or wire.

**THE CROSLLEY CORPORATION**  
 Powel Crosley, Jr., Pres. Cincinnati, Ohio

Separate frozen-food storage in every model!—

One-piece welded steel cabinets!—

Extra refrigerated bottle space!— Fiberglass insulation throughout!—

# New **SUPER SHELVADOR**

(PATENTED)

America's No. 1 Food Convenience Feature

*Offers* **TWICE AS MUCH**  
**FOOD TO THE FRONT!**



**SUPER SHELVADOR SPACE  
IS ALL EXTRA SPACE!**

Main food compartment in the "Sixes" measures  
full 6 cu. ft. exclusive of the door. There's  
over an extra cubic foot in the Shelvador  
— a bonus that only a Crosley offers!

In the "Eights" there is actually  
9 cu. ft. including the Shelvador!

Improved Electrosaver mechanism! — Deluxe high humidity models! —  
And many other great Crosley features!

SELLING LIKE *Blazes*



## RCA VICTOR SUPER SIX

17 features—6 RCA Victor Preferred Type Tubes—only \$16.95\*

These 17 features prove *why* folks everywhere have kept our factory going full blast to keep up with orders: Six RCA Victor Tubes, big Continental style plastic cabinet, R-F stage for better sensitivity, big Edge-Lighted dial, new style Bull's-eye pointer, Music-Speech Tone Control, Plug-in for record player attachment, Powerful 5" Permanent Magnet Dynamic Speaker, Improved superheterodyne circuit, popular 1610-1712 kc. police band, Extra-large Magic Loop Antenna, Big knobs for easy tuning, Automatic Volume Control, Special hi-stability I-F transformers, connection for extra antenna, 16-to-1 Vernier tuning, AC-DC operation.

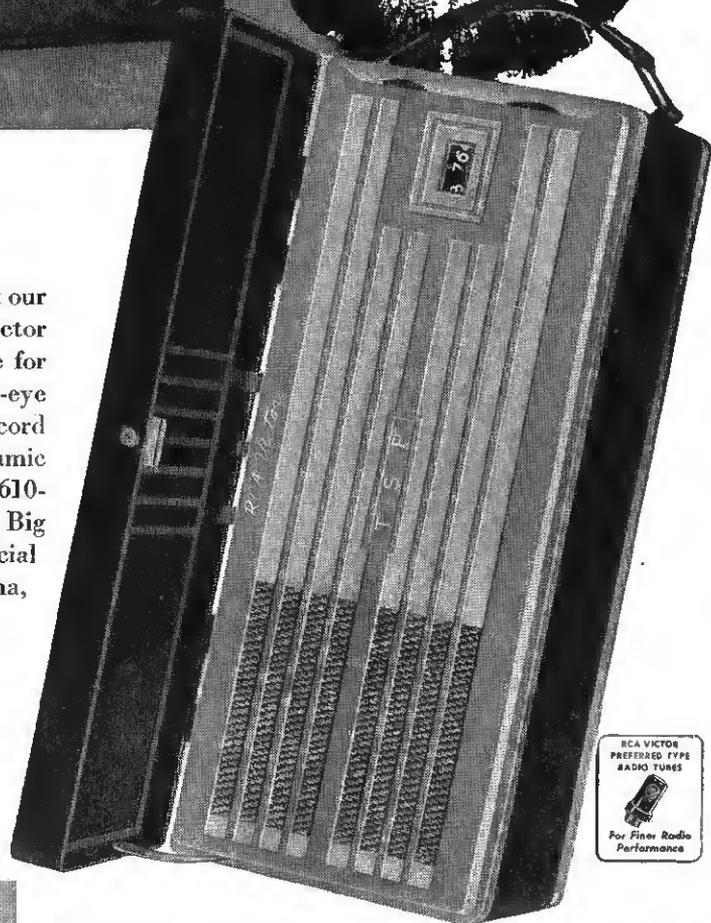
Begin the New Year with these proved big sellers by RCA VICTOR  
*Feature them . . . push them—for profits*

\*Prices f. o. b. Camden, New Jersey, subject to change without notice. Trademark "RCA Victor" Reg. U. S. Pat. Off. by RCA Mfg. Co., Inc.



# RCA Victor

RCA MANUFACTURING CO., INC., CAMDEN, N. J.  
 IN CANADA, RCA VICTOR CO., LTD., MONTREAL  
 A Service of the Radio Corporation of America



## RCA VICTOR PERSONAL RADIO

Little . . . light . . . sensation of the nation—  
 only \$20\* complete with batteries

There are reasons—plenty of 'em—why the RCA Victor Personal Radio created enthusiasm in every market it's touched! It weighs only 4¼ lbs.—measures only 3<sup>1</sup>/<sub>16</sub>" by 8<sup>3</sup>/<sub>8</sub>" by 3". And in it are built outstanding performance features, which make possible this set's splendid tone and sensitivity. These include new "Ellipticon" speaker, 2-position lid support, 4 new RCA Victor Tynetron Tubes. The lid contains built-in antenna. No exposed controls. Open lid—set plays. Close lid—it stops. Smart, sturdy case provides room for personal initials.

# Some Dealers is the Screwiest People!

AT THESE PRICES  
WE LOSE MONEY -  
BUT LOOK AT THE  
BUSINESS WE DO!



... While Others **DOUBLED** Sales  
without a price cut—at \$200 and up!

**Y**ES—the last inning of the 1940 Refrigerator Championship Game is over—and just look at the score!

One team—the dealers who went along with the price cutters—worked a lot harder . . . to find and sell more prospects . . . at cut prices and profits . . . to end up with no extra profit for their extra work.

The other team—the Dual-Temp dealers—went for it. They more than doubled sales . . . without a price cut . . . at \$200 and up! And better than half these sales were in the rich replacement market, among people who paid well once to get the best food protection . . . and are ready to do it again.

Why the difference? Because one team was playing with a dead ball. All they had was a fancy streamline cover on the same kind of refrigeration the industry was selling years ago . . . that and a low price. While the Dual-Temp dealers have a home run ball . . . a new, far better kind of refrigeration freed at last from the old faults smart buyers don't want at any price.

Well, the trading season's here now. Already hundreds of dealers, convinced at last that the discount on a \$110 box isn't as big as on a fast-selling \$200 job, have switched teams. And there's still room on the winning side for more smart dealers.

If you'd rather hit home runs instead of bunts, get in the line-up for 1941 with . . .

- . . . the only refrigerator of its kind in the world, perfected and proved through two years selling . . .
- . . . the only refrigerator that answers every demand and objection of replacement buyers . . .
- . . . the only refrigerator prospects can't duplicate down the street at a lower price

**NEW! 1941 DUAL-TEMP LINE STARTS UNDER \$200!**  
... and every Dual-Temp combines these outstanding advantages ...

**SEPARATE BUILT-IN FREEZING LOCKER!** At 22° below freezing, keeps packaged frosted foods perfectly—makes home-freezing of foods practical—actually makes meats more tender!

**HUGE MOIST-COLD COMPARTMENT** is automatically humidified . . . ends need for covering foods to prevent wilting and drying.

**NEW STERILAMP** reduces spoilage due to bacteria, retards mold growth, combats ice box odor.

**ROOMIER!** No bulky frost-collecting coils cutting shelves in two.

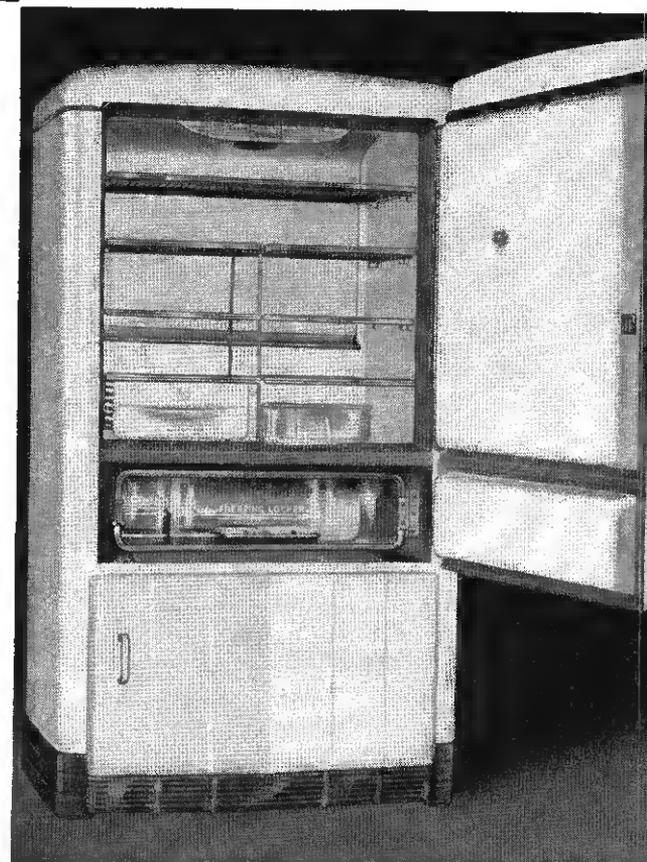
**NO DEFROSTING** in upper compartment . . . nothing to defrost!

Only **STEWART-WARNER** makes  
**DUAL-TEMP**

The Refrigerator of Tomorrow

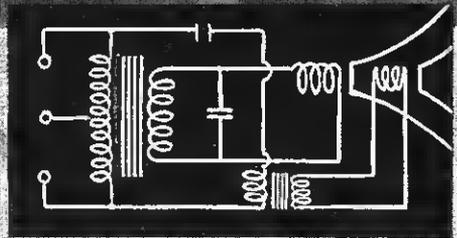
STEWART-WARNER CORP., CHICAGO, ILL.

Also makers of Scotch Maid Electric Ranges and Concert Grand and Magic Keyboard Radios



# DUAL *Speaker* JHP-51

## A Two-Way System Complete with Integral Dividing Network



Because it provides faithful wide-range reproduction obtainable only with a Two-Way reproducing system presented for the first time in an integrated compact unit incorporating high and low frequency radiators, PM fields, frequency-dividing network and impedance-matching facilities... at remarkably low cost... these are the "reasons why" the JHP-51 Dual Loud Speaker\* has attained such immediate and widespread acceptance.

For broadcast monitoring, high-quality FM and AM receivers, better phonograph reproducers, the JHP-51 is ideally suited.

*\*Also available in complete reproducers incorporating Jensen BASS REFLEX.*

# Jensen

RADIO MFG. CO., 6601 SOUTH LARAMIE AVENUE, CHICAGO

## 1940 **F**IGURES\*

### DOMESTIC and EXPORT

RADIO Type	Factory Shipments	% of Total	Value at List	% of Total	Average List
Compacts (ac or ac-dc) .....	5,115,200	47%	\$96,199,000	29%	\$19
Consoles (ac or ac-dc) .....	860,800	8	55,719,000	16	64
Phono-Radio Compacts .....	289,000	3	9,940,000	3	34
Phono-Radio Consoles .....	435,000	4	50,001,000	15	115
Phono-Radio-Recorders .....	13,000	1	1,281,000	1	98
Portables (bat. and bat-elect) .....	1,148,300	10	25,543,000	8	22
Rural Radios (battery) .....	510,400	5	12,718,000	4	25
Auto Radios .....	2,075,800	18	66,926,000	20	32
Radio Chassis (less cabinets) .....	453,500	4	12,479,000	4	27
<b>TOTAL (see Accessories below)</b>	<b>10,901,000</b>		<b>\$330,806,000</b>		<b>\$30</b>

### EXPORT Only

RADIO Type	Factory Shipments	% of Total
Compacts (ac or ac-dc) .....	387,900	80%
Consoles (ac or ac-dc) .....	7,600	2
Phono-Radio Compacts .....	4,000	1
Phono-Radio Consoles .....	5,000	1
Phono-Radio-Recorders .....	300	-
Portables (bat. and bat-elect) .....	18,100	4
Rural Radios (battery) .....	23,700	5
Auto Radios .....	25,100	5
Radio Chassis (less cabinets) .....	10,000	2
<b>TOTAL</b> .....	<b>481,700</b>	

### ACCESSORY Sales

Elec. Phonos & Wireless Rec. Play .....	312,700
Receiving Tubes .....	105,000,000
Phonograph Records .....	75,000,000

### GENERAL Statistics

Homes With Radio .....	29,300,000
Cars With Radio .....	8,000,000
Radios In Use .....	50,100,000

\* December shipments estimated. (Totals subject to revision.)  
For 1939 estimates see June and January 1940 Radio Retailing.

# ONE Radio

IMPORTANT STATISTIC of the future will be the number of people with receivers rather than the number of homes

Photos By  
**NAOMI SWETT-GRAY**

Customers by

Hopper-Kelly Co., Z. D. Radio Co.,  
Gerke Music House . . . Seattle



**SKATER**—Mr. and Mrs. Ralph Beymer, Pacific Coast senior champion national pair ice skaters, prepare for an exhibition performance. A personal portable keeps them in touch on tour and, of course, they have other sets at home

**FLYER**—Whether in a hotel room or in flight, Allen Henderson, pilot, picks up sequence weather reports, news, sports and entertainment on his special portable. No one else gets to use this set for it's as much part of Henderson's personal equipment as his parachute



With These Specially Posed Pictures *Radio Retailing* Reminds Its Industry, Sometimes Prone to Underestimate the Fundamental Soundness of the Service It Sells, That . . . . .

**RADIO PLAYS A VITAL PART IN THE LIFE OF VIRTUALLY EVERY AMERICAN**



**SOCIALITE**—Mrs. Otto Wittwer, who before her marriage was Albertina Follin, Spanish motion picture star, records her four year old Eda and eight year old Linda. Naturally, as in any well-equipped home, this combination is just one of several radios owned

**LAWYER**—While reading the law Stephen Chadwick, 1938-39 National Commander of the American Legion, tunes in world-wide news, famous speakers and the symphony. This set was purchased exclusively for office use



# Doesn't Make a Sale



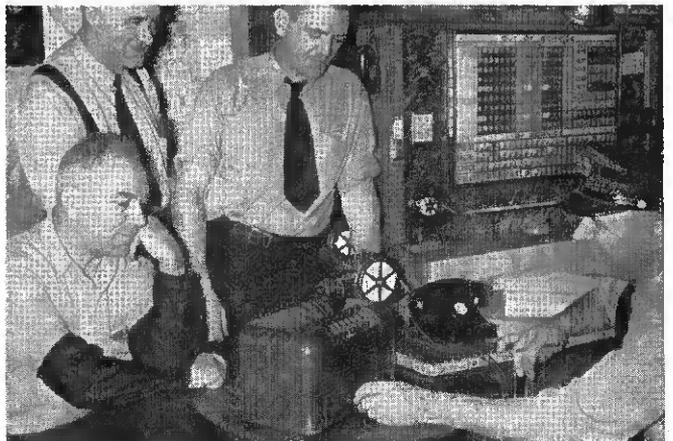
**FISHERMAN**—When Jens Liverton, deep-sea fisherman, leaves for a week-long troller trip 75 miles to sea, he takes along a battery model. *Ma Liverton* tunes in on the same programs on a console ashore

**CO-ED**—Mignonette Stean, University of Washington co-ed, gives Austin Hall girls a thrill with a home recorder and wireless record-player. *It's her own, personal, away-at-college hobby (right)*



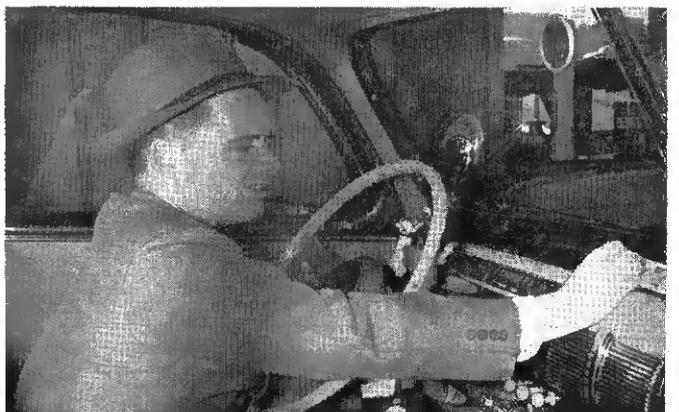
**TEACHER**—Owen J. Williams, choral director of San Francisco World's Fair fame, drops into the piano studio of William B. Coburn. *Director, teacher, pupil all "held everything" during a Grand Opera broadcast picked up on a studio set*

**DANCER**—Five year old "Judy" Schoenfeld, pupil of Cornish School of the Dance, dials expertly for orchestra music for practicing new steps. *In the privacy of her own little room*



**FIREMAN**—News, round-table discussions, sports and entertainment are the salt of life for both day and night platoons in the watch office of Fire Station 17. *When the boys go home their own radios pick up where the station set leaves off*

**LUMBERMAN**—Joseph M. Abel, lumber dealer, enjoys his new car radio en route to Sunday ski-trails high in the mountains. *He says a family can scarcely have "too many" radios*



**The "UPSTAIRS" Discount Racket**



# More About

## LETTERS from dealers



THESE TWO ARTICLES started it all

turers. I think most wholesalers would be only too glad to stop this direct selling if they were assured that all jobbers would abide by this decision. But I guess there are too many chiselers who would spoil the setup. Conditions must be the same in every town and it seems if the manufacturers cared at all about their dealers that they would make some effort to rectify this sore spot.

Of course, we realize that they are after maximum sales and distribution and to hell with the small dealer, but I wonder if they realize how many sets we see that have been set up by the customer himself, packing not removed, shipping bolts still in place and pushbuttons improperly set? We have found that almost without exception radios set up by the customer have not been entirely satisfactory, with a result that they knock the set to their friends. . . .

We would like to hear from any dealer who has tried selling radios in the original packing case, FOB dealer's floor, less service etc. to the ones demanding cut prices.

Trusting that someone (bless him) will suggest some practical plan. . . .  
CLAREMONT, N. H. V. W. HODGE

### Blames Mfgs., Jobbers and Dealers

For quite a while we have been reading articles in *Radio Retailing* about the "Buy At Wholesale" racket.

Manufacturers, wholesalers, retailers, servicemen and consumers are all involved. But check over the list and you will find that the retailer-serviceman is the main one that is losing by this practice. There is not much difference to the manufacturer as no doubt he thinks that national advertising will overcome all defects in the setup and maintain his volume. He thinks he will sell just as many sets whether they are sold by the wholesaler at retail or by the retailer at wholesale. Distributors evidently find it profitable. And the customer likes to buy wholesale not just to save money but because it makes him feel smart, like a big-shot.

Each and every group in the radio business must look out for himself. All are passing the buck. So each must be on his own. (Ed. Note: own what?)

Speaking as a small retailer who maintains a service department, I will say that even this end of the business has too many "riders". . . . In order to save time and keep down my blood-pressure I have taken down my "Tubes Tested Free" sign, putting up in it's place one reading: "NOTICE: Square-Deal Tube Testing."

**L**ONG PREVALENT in the radio business, price-cutting as a planned and deliberate sales policy of certain concerns has never threatened the existence of legitimate retailers (and the welfare, therefore, of the entire industry) more than it does today.

So bad is the current situation, in fact, that many dealers for years reconciled to bucking discount houses during their struggle to build a sound and substantial future for themselves and their suppliers are actually wondering whether the game is worth the candle. Not a few are considering (and, this time, they mean what they say) the desirability of getting right down into the gutter and competing openly with such operators on their own grounds.

Letters toned along these lines have been reaching *Radio Retailing's* editorial offices in disturbing and increasing number. Several of the most recent follow:

### Thinks Manufacturers at Fault

The article in your November issue by C. W. Farrington interested me greatly as we are having some of the same trouble here.

Even though we are 100 miles from the nearest large city, more and more radios are coming in at wholesale prices direct to the customer.

The biggest offender is our largest industry, a machine shop. Anyone em-

ployed by this company who wants to can buy any appliance at full discount. The only requirement is that they have the cash to pay for it.

We are being constantly made the unwitting salesman and demonstrator for wholesalers because the customer has us deliver from one to four different models, for demonstration. Later we learn that they have bought one of the models we demonstrated through the purchasing agent of this machine company. It has gotten to the point where my salesman refuses to take out a radio to a person employed by this company. . . . In some cases after a customer has bought direct he isn't at all bashful about asking us if we won't please come out and adjust it because he knows we are a — dealer!

Last season, after we had lost the sale of several \$200 refrigerators and quite a few — phono combinations in this way, we had quite a talk with our jobber. He is one of the finest concerns in this territory and promised to do all he could. After we had sent in some serial numbers he reported that both radios and refrigerators were coming in from an electrical jobber in Boston. The — representative promised to stop this but, so far, he hasn't succeeded.

As one jobber's salesman said: "If one jobber refuses to sell the machine shop some other jobber will take the business." Another salesman suggested that we contact the purchasing agent of the machine shop ourselves, as long as these conditions could not be remedied, and offer to sell him radios at a discount, delivery to be made direct by jobbers. Customer to do his own unpacking, etc., paying extra if we were asked to make the installation.

The trouble doesn't seem to be so much with the jobbers as with the manufac-

# DIRTY DISCOUNTS

Take up the problem where *Radio Retailing* left off

Tubes Tested *Free* provided you replace defective tubes from our stock of dependable, low-cost — tubes. Otherwise, there will be a charge of \$1 for each set of tubes tested."

My tube business is lots better.

No one has ever paid the \$1 charge.

My "No Riders" sign is staying up!

SOUTH ZANESVILLE, OHIO

EDGAR M. CARNES  
*South Zanesville Hardware*

## Calls Distributors Weak Spot

I have always had a desire to express my opinion on this phase of merchandising and am going to make the best of this opportunity.

I am not going to beat about the bush nor be bashful about mentioning names, but first let me tell you about my experience last October. I ordered two — consoles from the factory of the —. I bought them at an extremely low price through the — Company of —, even after this firm got its rakeoff for just sending in the order.

The freight on these was only \$4 per cwt., or approximately \$2 each from —. Now, I have two other makes of consoles on the floor. These sets have the same number of tubes and same features as the —, but I was able to offer the — retail at the wholesale price which I paid for the —'s and the —'s. Result was that I sold the —'s within three days at a nice profit even after taking trade-ins. I still have the —'s and the —'s.

Now, the point is, I am just as able to write an order to the factory in question as the — Company or any other so-called distributor. Why pay them a rake-off? Under present day high speed communication and transportation the dealer has about as much need of a distributor as a pig has for five legs.

How do you think —, —, —, —, — and others offer the public a 40 per cent saving on radios? By buying them through a distributor? Not likely, is it? . . .

What's the difference if the manufacturer goes to the bank on Monday morning to deposit 500 checks from distributors or 5,000 checks from dealers? The big difference will undoubtedly be that his deposits will show a definite increase while the mail-order houses and those whom you call racketeers will show a definite decrease. The public could then get the service to which they should be entitled and the dealer could remain in business.

The *real* racketeers are the distributors

who sell to the dealers and not the distributors who sell to the public as you infer in your article "A Dealer Tilts at the Discount Racket."

BONNERS FERRY, IDAHO LUCIEN DAUFAU  
*North Side Radio and Electric*

## More Distributor Criticism

There should never be wholesale and retail selling from the same concern. The manufacturers should protect their lines by seeing that their merchandise is sold only by outlets maintaining an exclusively wholesale business.

The reduction of the number of dealers in some lines would be desirable as in a city like our own where two-thirds of the dealers are selling one line of radios due to the fact that the distributor in most cases creates the trouble by overstocking dealers on a basis of 24 to 50 radios as the initial order in order to obtain a workable franchise they themselves bring upon these dealers by their inability to finance such a purchase.

I sincerely believe that most of this incurable condition now existing could be cured by the distributors themselves by distinguishing who is and who isn't a legitimate radio dealer, and if this dealer should have the privilege of purchasing any amount of radios all on the base discount, truthfully stating as either a thorough dealer, a partial dealer or no dealer. A thorough dealer should work on 50 and 10, the list price to accord with such a discount. That would allow some trading without dealer losses. A partial

dealer would work on 25 per cent with the suggestion that they either buy direct from the wholesaler or nearest key dealer.

This may not answer all your questions completely, but there is not enough stress made at the present time on the legitimate dealer. After all, he is the backbone of the radio industry and is being held down by the wholesaler-retailer and chain store outlets.

LONG BEACH, CALIF.

HARRY A. WARD, JR.  
*Ward Bros. Radio*

## Blames Nobody In Particular

In regards to your article "A Dealer Tilts At the Discount Racket," I suggest that the discount to dealers be cut to 25 per cent and all sets advertised (and your old radio).

This would get the prices down to mail-order levels and we could get more of their business. . . .

At a 25 per cent dealer discount the "percentage off" boys couldn't operate and we would be rid of this evil. Also, the chain store competition, because under the 25 per cent discount setup the advertised price of a six, seven or eight-tube console would be pretty close to theirs.

ROCHESTER, N. Y. LESTER H. BRAUN  
*Brauns*

## Blames Us

What is the matter with radio trade publications?

Are you afraid to face the truth?

Your article on discount houses a few months back actually made me laugh, it was so mild and face-saving.

We operate two stores, main store at above address and also on Hillside Avenue, Jamaica. Our major business is service for dealers who cannot maintain a service department. We also stock about \$900 worth of current model radios, stock now moving slowly (discount shoppers not even wanting price.) Same condition exists with 6 or 7 other dealers contacted.

Everyone agrees business is going to the discount houses. Mind you, this is backed by proof of service I have rendered myself on current model —'s and —'s that customers admit proudly were bought 40 per cent off.

What are you going to do about it? You, above all, can help if you have the courage.

CORONA, N. Y. JOHN PRISTAS  
*Presto Radio Service*

## JANUARY Sore Spot

**ALWAYS ugliest at this time of the year, price-cutting is especially prevalent as this issue goes to press.**

**FAILURE of 1940's last quarter to match gains achieved earlier is the probable reason.**

**UNLESS quickly checked, dumping will start an otherwise promising new season off under serious handicap**



# NEW RURAL RADIOS

FARM SET design for 1941 reflects closer study of country dealer's needs by leading factories

By  
W. CARL DORF

ACCORDING to the latest available figures there are close to seven million active farms in the United States and statistics indicate that only about four million are equipped with radio.

Thus three million or more unequipped farms are prospects for the new farm radios. And thousands of other rural homes without benefit of electric service form a big replacement market.

It can no longer be said that the manufacturers are not keenly aware of this market. The latest battery sets are streamlined for appearance, feature new refinements and are designed to provide "big city" performance.

Even more interesting, the makers are offering a variety of both table and console sets with prices to fit the market. Models start around \$19.00 list and range up to \$90.00 for de luxe sets.

#### Sales Ammunition

Every farmer and rural dweller needs a radio set. The farmer must keep posted on market news, the weather and transportation reports. Today's farmer should consider radio a business tool. Also, by its means he is linked with world events and the political picture as it affects him.

Radio's entertainment value can not be stressed enough. The country listener enjoys his classical offerings as well as his hillbilly programs. And he knows and can appreciate the better recordings. The

new phono-radio farm combinations open a new market for this field.

This is the "shut-in" season for the farmer. During this time he and his family have more leisure time to listen to the radio and it should be the time for the rural dealer to put that extra sock in his sales campaign. Farmers are receptive now and will lend an attentive ear for the dealer's sales talk and demonstration.

#### Set Features

Big percentage of new sets use the 1.4 volt low-drain battery type tubes with self-contained A-B battery pack. Typical packs of this type provide 1000 hours of useful service. In this feature alone, the country dealer has a powerful selling point "Operating Economy."

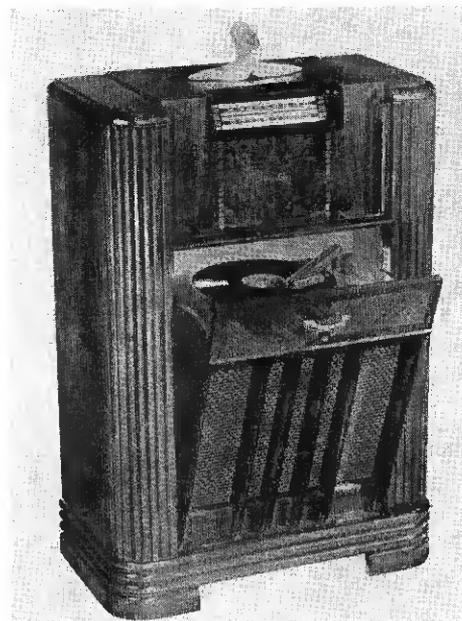
Most new models employ the type 1A7G as mixer oscillator, a 1N5G as i.f. amplifier, a 1N5G as second detector, avc and first audio and a type 3Q5G for the power stage.

Other models are available for 6 volt storage battery operation and for 32 volt supply. An innovation in this year's sets is the fact that several are convertible from battery to a.c. or d.c. house current. The farmer who has been expecting "high-line" service in his area will be interested in these new 3-way sets.

#### Phonographs Too

Foremost among the features of the new models is the provision of

(Continued on page 66)



PHILCO

695P

\$59.95



ADMIRAL

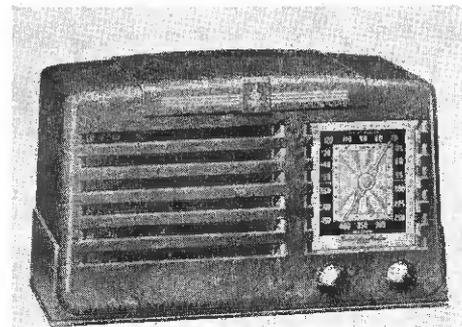
4384

\$27.50

EMERSON

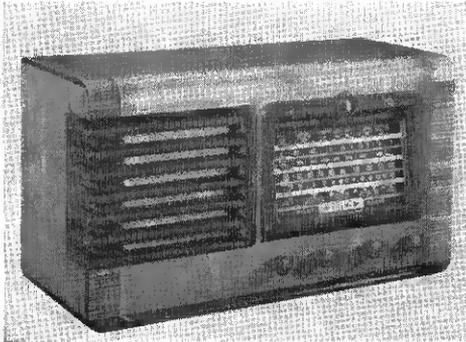
344

\$19.95\*

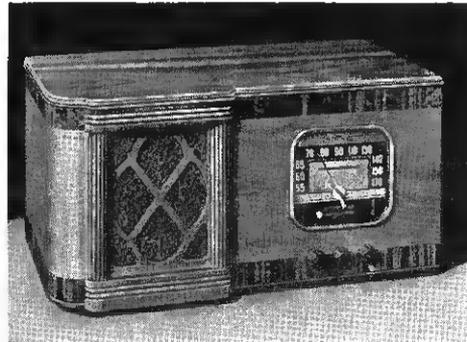


\*Less Batteries

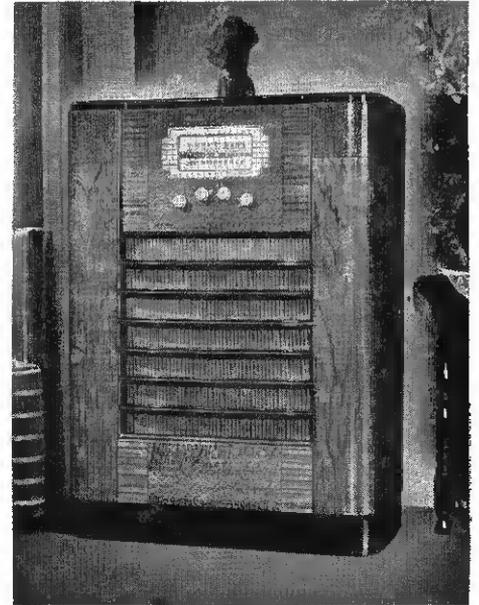
† With Batteries



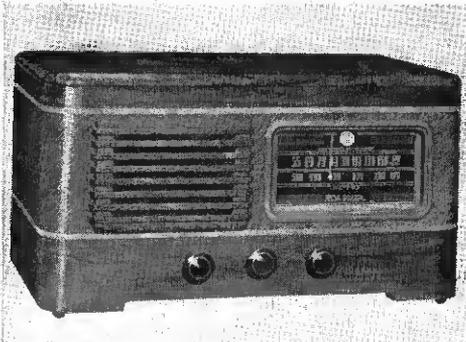
PILOT 133 \$89.50



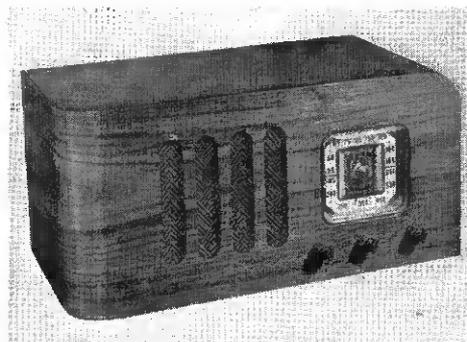
MOTOROLA 40BW \$19.95†



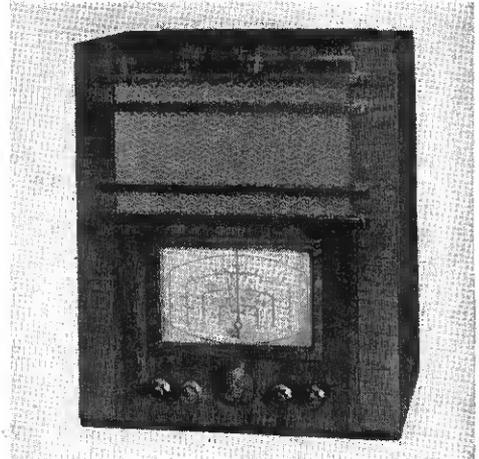
G-E JB525



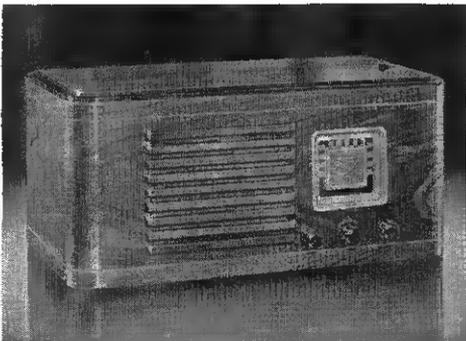
RCA VICTOR 14BT2 \$29.95†



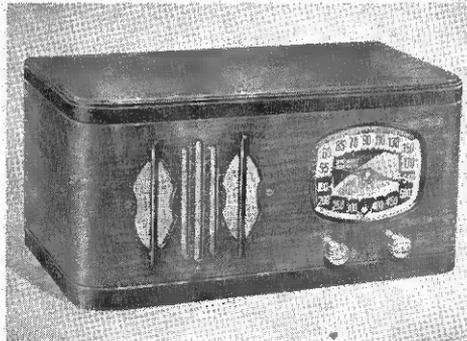
FADA 144MT \$19.95\*



ANDREA 826 \$79.95



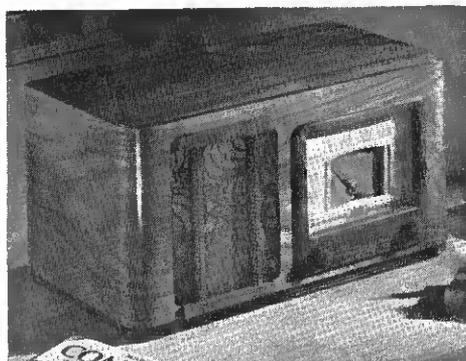
CROSLY 43BT \$29.95



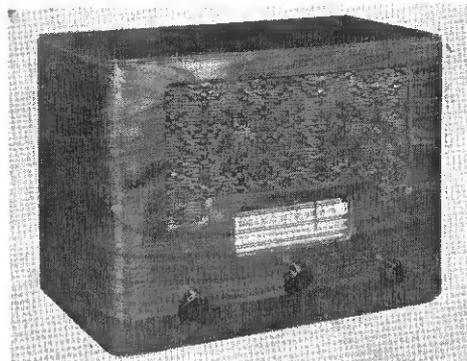
STEWART-WARNER 4DI \$19.95\*



SENTINEL 243T \$29.95



SONORA KZ111 \$19.95

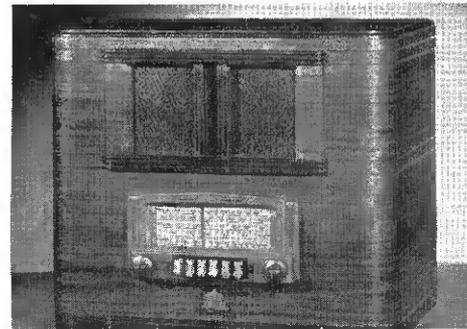
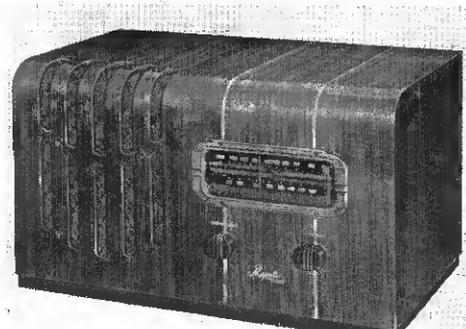


SETCHELL-CARLSON 4130 \$37.50

MAJESTIC TO81A \$24.95

BELMONT 509

FARNSWORTH BT57 \$26.95



# CLEAN Business

# The

▼ GONE WITH THE WIND—An outlet on the outside wall permits cleaning of chassis brought to the shop with a portable blower, so dust stays out of the store



**T**HE CLOSING DAYS of 1940 found FM broadcast service rushing preparations to make its commercial bow to the public. Twenty-five stations had been granted FCC construction permits and authority to engage in commercial broadcasting on January 1 or "as soon as they are ready to do so."

When the Commission decided last May that FM should proceed upon a commercial basis on the first day of the new year, it also ruled that all experimental licenses would be cancelled on that same date.

It is quite evident, as we go to press, that most of the newly licensed stations are not ready to go "commercial" and, as reported in the December issue of *Radio Retailing*, many of them may not be ready until April 1st.

### Makes Haste Slowly

In order to assist FM broadcasting during its transition from an experimental to a commercial service the FCC announced on December 19 that 60 day extensions for experimental station licenses would be granted "upon appropriate request."

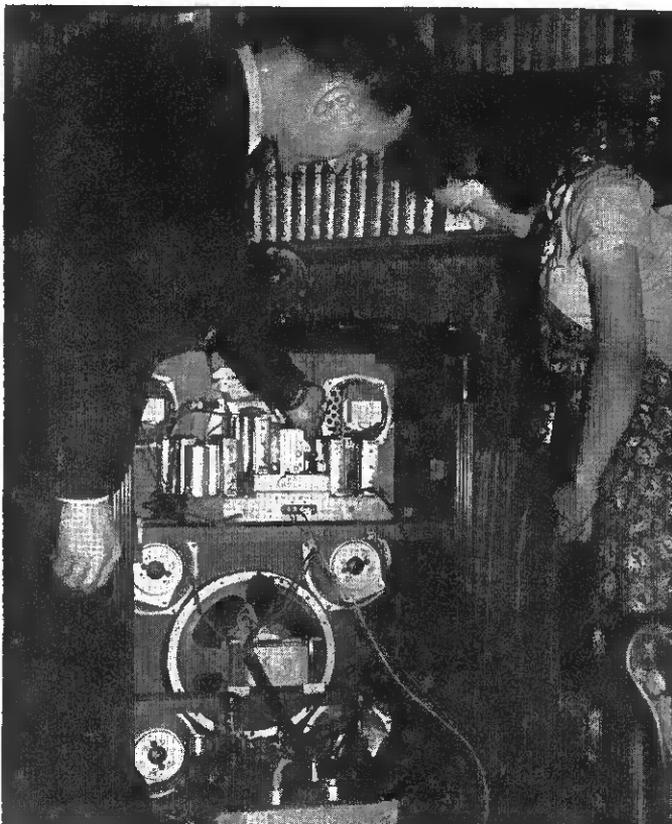
FM leaders say this ruling is a step in the right direction. The low-power experimental stations can now bridge the constructional gap which might have caused a deep and detrimental silence on the new FM bands.

A recent bulletin on this subject by FM Broadcasters, Inc., an organization for the advancement of frequency modulation, had this to say: "The prevalent impression that on January 1 all 25 licensed stations would immediately launch into full-time commercial schedules was ill-founded. The career of FM, fast-moving though it may be, is still less than a year old and it could not be expected to spring into being, full-plumaged as some people might expect.

"It is prepared shortly to enter the full-grown phase of commercial operation and there will, of course, be commercial service shortly after the start of the year. But it will take time to put new stations on the

▲ DIRTY TRICK—S. J. Pensock canvasses for sales and service, uses his clean handkerchief to show the housewife the accumulated dirt on the chassis, emphasizes the need for at least a thorough cleaning by a technician

▼ SPIC AND SPAN—When the set is returned Pensock points out the immaculate appearance of the "innards". Located in Hazelton, Pa., this dealer spends most of his time in canvassing, leaves two clerks and two servicemen in his store for routine business



# Latest FM NEWS

**FCC GRANTS 60-day experimental license extension to stations not ready to up power and go commercial on January 1 deadline but refuses to permit sale of time while such stations operate on limited coverage basis**

air. Many of the new stations recently granted construction permits by the FCC must install large, expensive transmitters. The smallest to cost about \$5000 and the largest about \$70,000. In power, the new stations may range anywhere from 10,000 to 50,000 watts. A certain number of field tests must be completed and the whole installation approved by the FCC."

The bulletin further reports that FM must be built gradually and develop soundly. That 1941 will see many new stations licensed. That there are now close to 50 more applications for construction permits awaiting action by the FCC and many more applications in process of preparation by would-be broadcasters.

## Washington Meeting

During the first part of December a group of leaders in the FM field met with Chairman James L. Fly and Commission engineers to discuss ways and means of speeding up the program of FM broadcast service. FM industrialists included John Shepard, 3rd, president of FM Broadcasters, Inc., and the Yankee Network; T. C. Streibert, vice-president of WOR; C. M. Jansky, Jr., Consulting engineer; and Philip G. Loucks, Washington attorney.

One result of this meeting was, that the FCC provided the already reported extension of low power service and also announced that low-power experimental stations will not be allowed to go commercial on a limited coverage basis. The terms of the construction permits, as to service area, must be fulfilled before air time can be sold.

Another suggestion made by the group was that, provision be made for control stations to feed programs from studio to FM trans-

mitter. And from FM transmitter to FM transmitter. This question was to have further study. In the meantime permission was asked to use the present bands above 100 megacycles assigned to relay stations for this purpose in order to expedite development of FM broadcasting and improve service to the public. It was explained to the commission that difficulties have been encountered in several instances due to the non-availability of telephone lines of an adequate fidelity, except at excessive cost.

## Special Calls

The assignment of special calls for FM stations embodying numerical reference to specific channels was also discussed. To meet the suggestion, the FCC on December 6th, approved a system of call letters by which the new FM transmitters will in future be clearly identified to listeners.

In accordance with the international prefixes of "K" and "W" assigned to U.S. stations, the new FM call letters will start with "K" if west of the Mississippi, "W" if east.

The second and third characters, however, will be numerals, indicating on which of the 40 channels in the FM broadcast band the station operates. At the end of the call sign is another letter or letters which may be either arbitrarily assigned, or indicate in some abbreviated form the city or area in which the station is located. Example: W41B might indicate a station operating on a channel of 44.1 megacycles in Boston, whereas K43SF could be another station on 44.3 mc. in San Francisco. The numerals are obtained by taking the last two numbers of the assigned frequency. All educational, non-com-

mercial stations will use the letter "E" on the end.

## Station Progress

The Chicago Tribune announces its new commercial transmitter, to be installed in the Tribune tower, will be 29 stories above the street level. The antenna itself will be 575 feet above Michigan Avenue. Initial outlay for equipment will be \$85,000.

Work is now in progress on station W55M, owned by the Milwaukee Journal. When finished will supply FM programs for some 1,522,000 potential listeners. Its tower will be 450 feet above the city. The station using 10,000 watts is to blanket an area extending

*(Continued on page 66)*

## ARMSTRONG Licensees\*

### BROADCAST TRANSMITTERS:

General Electric Co.  
Radio Engineering Lab., Inc.  
Western Electric Co.

### BROADCAST RECEIVERS:

Ansley Radio Corp.  
Espy Mfg. Co.  
Freed Radio Corp.  
General Electric Co.  
Philharmonic Radio Co.  
Pilot Radio Corp.  
Scott, E. H., Radio Lab., Inc.  
Stewart-Warner Corp.  
Stromberg-Carlson Tel. Mfg. Co.  
Zenith Radio Corp.

### AMATEUR AND EXPERIMENTAL RECEIVERS:

Hallicrafters, Inc.  
Hammarlund Mfg. Co., Inc.  
National Co., Inc.

### SPECIAL RECEIVERS FOR BROADCASTING COMPANIES:

Radio Engineering Lab., Inc.  
Western Electric Co.

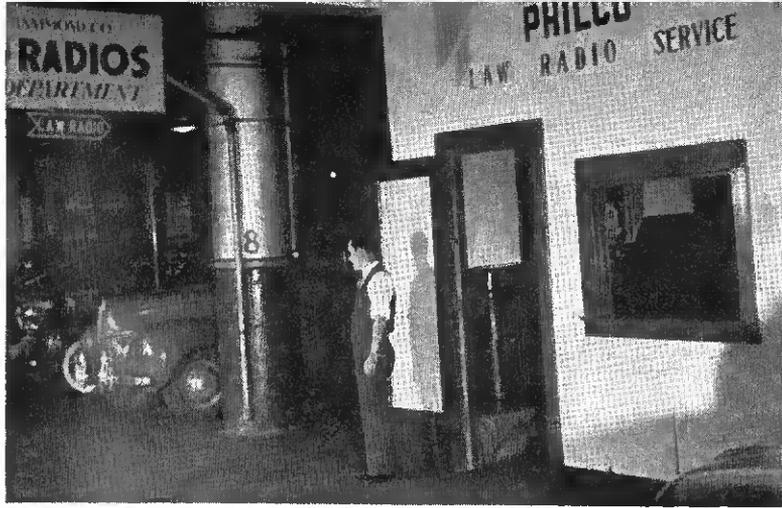
### MOBILE COMMUNICATION AND MISCELLANEOUS APPARATUS:

Finch Telecommunications, Inc.  
General Electric Co.  
Link, F. M.  
Radio Engineering Lab., Inc.

### AVIATION APPARATUS:

General Electric Co.  
Radio Engineering Lab., Inc.

\* From *Cravath, DeGersdorff, Swaine & Wood*, Attorneys, December 21.



**NO WINDOW TO WASH**—Although a natural spot for auto radio business, home combinations, consoles and smaller models are also displayed and sold in the radio room. Primarily interested in direct contact with the public, Law solicits no dealer installations



## AUTO RADIO Magnet

**BETTER MOUSETRAP?**—An 800 car public garage provides plenty of traffic for Law Radio Service, Cleveland. A complete store and shop is located inside on the main floor, allows patrons to park their radio troubles with Law

**NO EXPERIMENT**—Started 12 years ago, the inside location eliminates sidewalk shoppers, gets the cream of the crop by presenting the store's story to business men, women-driver shoppers and theatre-goers. Three servicemen bat out repair jobs in time for customer pickup at the end of parking periods



# Can

**MANY dealers feel that air time is not up their advertising alley. Yet it could fre-**

**By EUGENE**

**I**F YOURS is the average community, the chances are you have one or more radio stations nearby.

Backed up with newspaper, direct-mail and circulars, your sales and service volume will mount in direct proportion to the amount of careful planning put into your radio advertising.

Why use radio? Primarily because of its low cost *per unit family reached*. (An average program in a community boasting 100,000 population will be heard by 25,000, one-fourth of the entire group.)

Radio advertising reaches the potential customer in such a manner that he cannot escape hearing it if the radio dial is lit.

In order to harness radio as a sales media our first consideration is the choice of a satisfactory station. Station power is important, for it governs the station range and the size of the audience.

### *What Station and Time?*

Does the station you are considering make its greatest program appeal only to certain types, or a mixed bracket of prospects? Does it specialize in foreign language broadcasts?

Will the station "guide" its sponsored programs by making frequent checks on audience reaction or does it let the sponsor take this job?

What time is available? Is it on tap continuously or only now and then during the week?

Mealtime coincides with greatest radio listening. The 7-9 a.m., noon to 2 p.m., 6-8 p.m., and midnight to 1 a.m. are the four favorite spots. Of these, the early morning and late p.m. spots are least expensive, with the dinner and noon hours the prime favorites.

Wise dealers will stagger their

# DEALERS *Broadcast?*

quently do a job for them if backed up by other and older forms of promotion

## A. CONKLIN

airings to include time announcements, checking sales results after each broadcast by offering premiums or other special inducements to those hearing the program, thus establishing the audience size.

### *What of the Program Itself?*

Inquiries show that favorite programs at the moment are:

The Quiz or IQ show, a selection of community individuals who appear at the studio to answer varied questions put to them by a master of ceremonies—prizes go to those answering correctly the largest percentage, as well as to listeners sending in catchy queries.

The Man On the Street Broadcast, in which the station announcer selects a corner on Main Street and buttonholes passersby, asking of each stock questions and giving contestants dollar merchandise certificates redeemable only at your store.

The Kid Show. With the help of local dramatic, music and school instructors, cute and clever kiddies can be put through their paces at the store and piped to the radio studio. Their fond parents will want to bring guests to your establishment to watch little Junior and Sue going through their motions.

The Newscast, most popular and attention getting of them all. Audience liking for spot news has been carefully tested during the first stages of the war and dealers should get in on the news bandwagon by sponsoring five-minute spots at the four time intervals mentioned above. The station supplies news bulletins. Cost is quite economical.

Variety shows, consisting of local talent, orchestra, girl and boy singer, or five minute comedy skits, are usually great for a once-a-week program.



STUDIO-STORE—Here's a way to make broadcasting pay double dividends

Last but not least is an early-morning all-recorded program. The type of program that consists of playing of popular platters with announcements before and after each record. An entire week's radio participation in this form of etherizing costs little.

### *What About Cost?*

Radio stations charge a flat rate for their time, with talent extra, save on recorded programs where music is thrown in. Operating under the same principles as the newspaper, their rates are influenced by volume of business. The more time taken, the less cost per program.

From the dealer viewpoint, it might be most effective to run a twenty-four week radio budget, with every six week period seeing a different type of airing. In this way dealers may find which program clicks open the coffers for them with least effort.

Checking of each program may be accomplished by the "something

for nothing" offer, which is made over the air to listeners who will come in, or send in, to your store, mentioning your air program. Phone checks may be made directly after the broadcast, asking the simple question "Did you like our program?" Send a salesman or two to inquire of housewives as to their enjoyment of your airings. If they get a peek at the old house radio, perhaps on its last legs, this is worthwhile.

## WHO, WHY and HOW

**HERE are many answers hitherto known only to the largest merchandisers, set down on paper, in fact, only after close study of their methods of picking stations, time and programs**

# Slide-A-Way

## PHONOGRAPH WITH AUTOMATIC RECORD CHANGER

WITH NEW



EXCLUSIVELY IN THIS 1941

Pat. Appl'd For

# Admiral

### 6 TUBE AC RADIO WITH BAND SPREAD SHORT WAVE

Model 71-M6. Open the doors . . . out slides Admiral's new and exclusive "Slide-A-Way" phonograph with its automatic record changer and Pfanstiehl Lifetime Needle. The last word in convenience! No stooping to peer into a cubby hole; no ornaments to remove from the top. Handsomely styled cabinet of beautiful matched walnut measures 30 $\frac{3}{4}$ " x 39" x 16 $\frac{1}{2}$ ".

CHASSIS: 6 tubes; AC superhet.; super Aeroscope; 10" P.M. dynamic speaker; bass compensation; variable tone control; automatic volume control; large, colorful "Softglo" airplane dial and beautiful soft gold escutcheon; two wave bands—standard (540 to 1630 K.C.) and Magna-Band tuning on European 31 meter band; "Slide-A-Way" automatic record changer unit (roller bearings) plays ten 12" or twelve 10" records.

Model 71-M6

\$69<sup>95</sup>



Prices slightly higher in Far West and South and subject to change without notice. Admiral Radios are equipped with RCA preferred type tubes.

# PfANSTIEHL LIFETIME NEEDLE

Will last a lifetime in ordinary home use. No more needles to change.

# PHONO RADIO TABLE MODELS with AUTOMATIC RECORD CHANGER



Model 69-M5

**\$39<sup>95</sup>**

*Model 69-M5.* Another smashing value by Admiral! The lowest priced radio-phonograph with automatic record changer on the market. Equipped with Pfanstiehl Lifetime Needle. Performance that compares with the best. New audio circuit developed by Admiral produces remarkable power output. Attractive walnut cabinet measures 17¼" x 12½" x 16½".

CHASSIS: 5 multi-purpose tubes; full AC-DC superhet. circuit; super Aeroscope; beam power output; full-size heavy duty P.M. dynamic speaker; automatic volume control; large colorful "Sofglo" airplane dial; covers standard broadcast band (540 to 1630 K.C.); Admiral automatic record changer plays twelve 10" or ten 12" records.

*Model 70-K5.* Compare it with any for appearance! Compare it with the most expensive for performance! Here's a value that tops them all! 5 multi purpose tubes; AC superhet. covers standard broadcast band (545 to 1630 K.C.). Has variable tone control; bass compensation; 6" P.M. dynamic speaker; automatic volume control; super Aeroscope; high power output; smartly styled walnut cabinet. Admiral automatic record changer plays twelve 10" or ten 12" records. Equipped with Pfanstiehl Lifetime Needle.

## ADMIRAL RECORD CABINETS

Here are two smartly styled record cabinets with compartments for eight record albums. Each is designed to harmonize perfectly with either of the two models illustrated above. Complete with one 12" and four 10" albums. Sold at a sensational price when purchased with an Admiral table model radio-phonograph.



Model 101



Model 102 Deluxe



Model 70-K5

**\$49<sup>95</sup>**

## CONTINENTAL RADIO & TELEVISION CORP.

3800 W. CORTLAND ST., CHICAGO, ILL.

Export Office: 116 Broad St., New York

Originators of Tilt-Tuning . . . Touch-O-Matic . . . Aeroscope . . . Slide-A-Way

ALONE—Kahn and Rosenau's Harry R. Quinn talks just eye-appeal features, urges the feminine shopper to send for her husband



# About

**N**OTHING ELSE BUT records constitutes the stock of Portland, Oregon's unique *Record Shop*, specialist in both the rental and sale of discs.

Entering business, the management reasoned: It is difficult for a single "fan" to maintain anything like a complete library of even one type of plattered music, hence a need for libraries. Furthermore, the ability to rent records and so hear them in the privacy of their own homes should, certainly, build up consumer desire for outright ownership.

Result: The shop today carries a large and well-balanced stock of new and saleable records plus over 4,000 used discs exclusively for rental, is doing nicely with its twin venture virtually devoid of competition.

## How Renting Started

To hold down initial investment The Record Shop started its rental library very largely with second-hand records. Receipts from rentals paid for the cost of additions and the depreciation and obsolescence of original present stock, besides making a substantial contribution to store overhead.

The rental stock is today largely composed of classical numbers, many of which are expensive and relatively slow moving. To carry such a stock in brand new records would, says the management, tie up considerable money. However you can't ordinarily sell a classical record by just talking about it. Like other items in this business, it must be demonstrated. Renting is one way.

Almost every call for a certain record in this store can be answered from the rental stock, demonstrated, and the *order* taken for later delivery. Thus the rental library supplies the "sample" stock, yet pays its own way in direct return.

## Personnel, System

A good record salesman must himself love music. He must be familiar with all types of music,

## DOUBLE-TALK Selling

**S**OMEONE has stated that the weaker sex controls 86% of the merchandise bought in this country and the style design trends of modern merchandise seems to bear out this contention.

Yet it is usually a man who signs the checks.

To close such "two-person sales" Kahn and Rosenau, Philadelphia, arranges radio receivers in a special semi-circular floor display.

While the young wife waits for her husband, sales manager Harry R. Quinn shows her features of new models that appeal to the eye, reserves actual operation of the sets.

When the husband arrives the couple is seated at a convenient listening dis-

tance within the semi-circle and Quinn then quietly tunes in the programs desired.

From their seats the couple can see and hear each of the representative sets on display and Quinn claims that after the program it is only a matter of selecting the desired model and closing the sale.

Fall sales of this store averaged above 150 sets a month, while during a spring promotion 136 receivers of one make and model were sold, exclusive of other set sales.

TOGETHER—When the man who wields the pen arrives Quinn seats both within the "magic semi-circle", proceeds with actual demonstration



# a RECORD SPECIALIST

MAYBE you don't want to rent discs but you'll be interested in the methods of this unique retail operation anyway

By HENRY W. YOUNG

know composers and their works. The same holds true with the rental business, with one more qualification, *clerical detail ability*.

With hundreds of customers and thousands of discs to be rented the department would soon be in a hopeless tangle if a good control system was not set up and strictly followed.

To do this job The Record Shop employs practically the same system as the book rental libraries.

There is a master book in which every record is entered by serial number. Customer cards, filed at the desk, show the serial numbers of records with "out" and "in" dates. In the record folder is kept another card carrying the serial number of the record belonging in that folder. When the record is rented this shows the "out" date and the customer who has it.

There is also a card catalog file for quickly locating records in stock, the cards being grouped by classes of compositions and then filed alphabetically under composers in the various groups.

## Rental Charges

Three plans are available to prospective members of the library. An initial fee of \$1.00 is charged on each plan, and, if lapsed, renewal costs fifty cents.

**Minimum Plan:** A total of 20 records may be rented during the month for not more than three days each. Extra and overdue records to be charged at four cents a day per record. (Monthly charge, \$1.00.)

**Optional Plan:** Any number of records may be rented for four cents a day per record. (But monthly rental must total \$1.00.)

**Special Membership:** Up to six records (or more, if in one album)

may be taken out and exchanged at will during the month. No record may be kept more than two weeks. Extra records, two cents a day per record, overdue records, four cents a day. (Monthly charge \$2.50.)

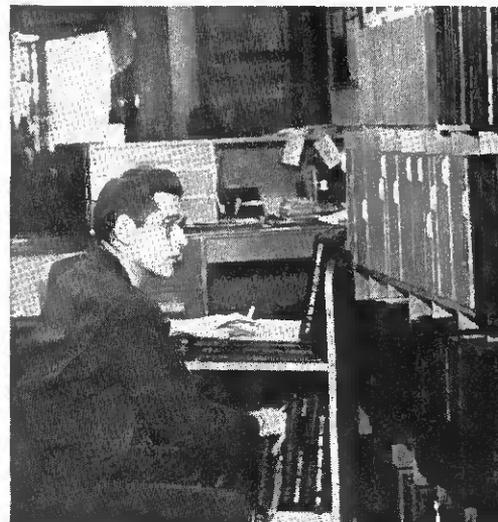
Non-members of the library may rent records for eight cents a day per record. Special rates are made to schools or clubs, but individual memberships make up the greatest demand.



**RECORD RECORDS**—Cardinal necessity in The Record Shop's business is an efficient card index system, and it has one (top)

**"IN-OUT" DESK**—A specially trained girl at the entrance handles Portland, Oregon customers much like librarians do in bookshops (above)

**ROLLING STOCK TRUCK**—As discs are returned, they are checked in, placed on a rubber-tired coaster, frequently distributed to orderly shelves (right)





# Radio Answers the Call of Total Defense

With characteristic speed, radio today is responding to the call of national defense. Enrolled to serve the public interest and fortify the Nation's invisible life-lines of communication are: Research, Engineering, Manufacturing, Broadcasting, International Circuits, Ship-and-Shore Stations. In 1919 the Radio Corporation of America was organized as an American-owned,

American-controlled radio company. RCA has established a world-wide communications system, independent of all foreign interests, and has pioneered in the creation and development of a new art and a new industry. Today, each of its services is equipped and ready for action in the first line of America's total defense on land, sea, and in the air.

## RCA CALLS THE ROLL OF ITS SERVICES TO THE NATION:

### WORLD-WIDE COMMUNICATIONS

Vital to defense and commerce, RCA operates 24-hour direct communication service to 43 countries. This service avoids the censorship, errors, and delays which might occur at relay points. The Nation is protected against the loss of overseas communications through the cutting of submarine cables in war-time. Supplementing these globe-girdling channels, RCA operates a domestic radiotelegraph system that links 12 key cities in the United States.

### MARINE COMMUNICATIONS

Life and property at sea are guarded by modern radio coastal stations and radio-equipped ships. Eighteen hundred American ships are equipped with RCA apparatus. The shore-lines of the United States are fringed with radio beacon transmitters to guide the fleet and shipping in American waters. American ships do not have to depend upon foreign-controlled means of communication to send messages home.



# RADIO

## BROADCASTING

RCA pioneered in establishing the first coast-to-coast network of broadcasting. The National Broadcasting Company, formed in 1926, today serves an American radio audience through 50,000,000 receiving sets. NBC provides these listeners with serious and popular music, news and information, drama and education, public forums and religious services. Under the American system of broadcasting, the finest and most extensive variety of programs to be had anywhere in the world is free to the listening public. *The richest man cannot buy what the poorest man gets free by radio.*

The broadcasting service of NBC is also maintained internationally, by short wave, and helps to strengthen good-will and cultural and economic relations between the Americas, and with other parts of the world.

An informed public opinion, promoted by a free press and a free system of broadcasting, is an important national asset in total defense.

## MANUFACTURING

The RCA Manufacturing Company operates five large plants, strategically located at Camden and Harrison, N. J., Indianapolis and Bloomington, Ind., and Hollywood, Calif. Within the year the company has invested millions of dollars in expansion to facilitate production and rapid filling of orders from the Army and Navy. Machinery is geared for national defense in addition to providing for normal requirements of the public.

## RESEARCH AND ENGINEERING

Through science and research, the RCA Laboratories are enrolled in national defense. Research in electronics, wave propagation, television, facsimile, acoustics, optics, and in other fields has opened new services and extended the scope of existing services, both commercial and military.

No longer must an aviator "just look to the ground" to find his way to a target or to his base. He may fly and land "blind" by radio. The electron microscope, a product of

RCA Laboratories, is a new means to help protect the national welfare as it opens new horizons for bacteriologist, chemist, physicist and industrialist. In these and many other ways, peace-time radio research has built new bulwarks of defense for our Nation.

## INVENTIONS AND THEIR USE

RCA licenses many manufacturers to use its inventions and patents. By making them widely available, RCA has helped to create an industry as well as an art.

Through this licensing policy the radio industry has access to results of the research of RCA Laboratories. In this way, competition has been stimulated, and numerous sources of supply opened to the public and the Government.

## TRAINING

More than 1,100 students are enrolled in the completely equipped schools of the RCA Institutes, Inc., in New York and Chicago. From this enrollment and from graduates of the Institutes, the United States can enlist the services of trained men in all branches of radio, from ship operators to service men. Scientists and engineers associated with RCA present and publish hundreds of scientific papers each year as aids to others interested in radio. For those who follow technical developments of the art, RCA Review, a quarterly journal, prints the latest scientific reports on progress in radio.

## EMPLOYEES

Labor relations between RCA and its employees are excellent. Employment in the RCA organization in 1940 increased from 22,000 to 27,000 employees. Principal officers and many employees of RCA are members of the Army and Navy Reserves.

For 21 years the pioneering efforts and services of RCA have safeguarded American preeminence in radio. ***RCA continues to serve the public interest and is fully prepared and ready to carry on in the first line of total defense!***

# CORPORATION of AMERICA

RADIO CITY • NEW YORK

*The Services of RCA:*

RCA MANUFACTURING COMPANY, INC.

RADIOMARINE CORPORATION OF AMERICA

RCA LABORATORIES

NATIONAL BROADCASTING COMPANY, INC.

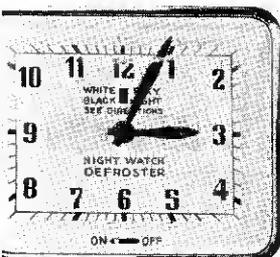
R. C. A. COMMUNICATIONS, INC.

RCA INSTITUTES, INC.



**BUTTER CONDITIONER**—Large enough to accommodate a full pound, and designed to refrigerate just right, in a new *General Electric*

**COLD MIST FRESHENER**—Ideal (left) humidity conditions for certain foods lie behind these sparkling glass doors in *Kelvinator* "Moist-Master"



## REFRIGERATOR Features

**NIGHT WATCH**—Spectacular feature of 1941 *Norge* "Rollator," it automatically defrosts the freezer every night



**FREEZING LOCKER**—Unusually large new compartment for freezing food, or storing frozen food, in a *Stewart-Warner* "Dual-Temp" (above)



**FOOD IN FRONT**—Latest "Shelvador" by *Crosley* features still more substantial and convenient shelves in the door

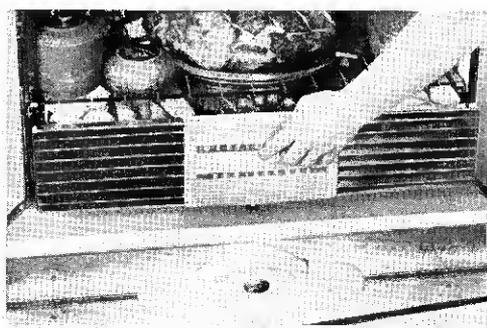
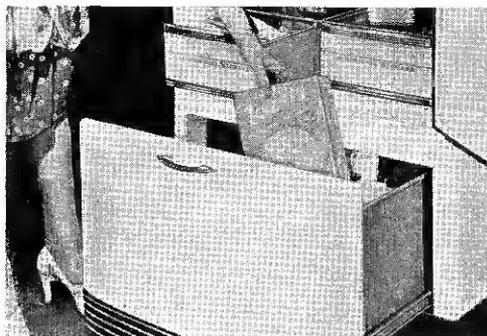
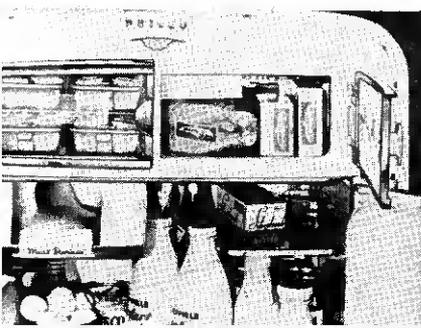


**TWIN FREEZERS**—Opened separately, top door (above) covers trays, lower door another near-zero compartment in the new *Gale*

**SUPER STORAGE**—Large, unrefrigerated bin (right) at bottom of *Hotpoint* is easy to handle

**COLOR COMBINATIONS**—Interior styling (lower right) in new *Westinghouse* models includes color, glittering glass, indirect lighting

**GIANT COMPARTMENT**—Built horizontally across the top of a *Philco* (below) is a freezing chamber separate from the one housing ice-trays



# How to the

By **CASWELL ODEN**

**A** CERTAIN MEASURE of prospect attention is necessary in selling anything. But it is necessary that we have attention in greater measure when selling a refrigerator than anything else.

To illustrate:

If we are trying to sell a radio and are having a difficult time getting the prospect to listen, that's of less vital importance because even if he *does* listen, we may not be able to convince him he *should* buy. He might sit there and listen attentively all through our presentation—and then, when we're finished, merely say: "Yes, but my radio is working all right."

Not so with the refrigerator. Once we have the attention, once we are *allowed* to get our story across, we can *convince* the prospect he should buy.

I'm not saying he will always *buy*; I am merely stating that we can, always, convince him that he *should*. That is because our sales talk is unanswerable, irresistible. That is because the box pays for itself.

### Importance of Attention

The importance of attention, in addition to varying with the product, also varies with the prospect. The more difficult the prospect, the more important that we have his attention, or a larger measure of it. To illustrate:

If a man walks into our store, points to a box, and says, "I'll take that one," we don't need his attention very much while we are making out the contract. He could be talking to a friend, or examining one of our radios, while giving us the information.

But if a prospect is so difficult he refuses to listen, doing most of the talking himself, we need his attention very much, his undivided atten-

# Make PROSPECT Listen

tion; and we must have it, must make him listen, if we are going to sell him.

## Arguing Is Futile

It is human nature to meet antagonism with antagonism. And when a prospect is antagonistic toward our opening remarks, our *natural* desire is to be antagonistic toward him. This natural reaction never *weakens* in a salesman, no matter how old he is or how long he has been selling (the more he himself is sold on his product, the more pronounced it is)—but it is in exact proportion to his ability to *subdue* that reaction that he is able to make people listen to him.

Most salesmen know that? They do, either instinctively or very consciously. But how many of them *forget* it! Many of them, even those who know better, are constantly allowing this natural reaction to assert itself. Not that they try to start a fight; they may do nothing more than let the prospect know, in what they think is a nice way, that he is all wet.

Such selling is all right, of course, if it is personal satisfaction we're after. But if we're after sales any degree of antagonism, no matter how slight or disguised, is wrong, no matter what the provocation.

## A Better Way

Now, telling you to be congenial is sort of trite; you want to know how to be that way and still make some progress toward the sale. After all, you can easily avoid argument by agreeing with the prospect—and making no attempt to sell! Well, we're coming to that, but did you hear what *you* just said? You said you could easily avoid argument by *agreeing* with the prospect. . . . and there, my



## REFRIGERATOR SELLING requires closer concentration of buyer's attention than radio but is easier once you get it

friend, you hit the nail right on the head.

This is the only way we can make a difficult prospect listen—of his *own* volition (as opposed to drowning him out with a louder voice, in which case our words don't register)—and it is necessary that he listen, in *that* way, if our words are to make any impression on him.

## What To Say

But that is only the first rule. The relentless affability, while an absolutely essential component, merely sets the stage; it will not in itself, with an exceedingly difficult prospect, allow us to tell our whole story. But it reduces the antagonism of the prospect (toward us if not the product) to the point where we can say *something*—and something that will register. Then we have only to say the *right* thing. . . . and the prospect will listen.

The right thing to say, specifically, depends upon the case. But it is, theoretically, something which *stops* the prospect. It may be something which *defies* resistance, in which case we can get under way. It may be something which *provokes* (in the prospect) a demand for talking on our part.

I shall give you a couple of cases. These are actual cases, almost verbatim. They are not to be copied,

but they exhibit the *principle* very clearly. . . .

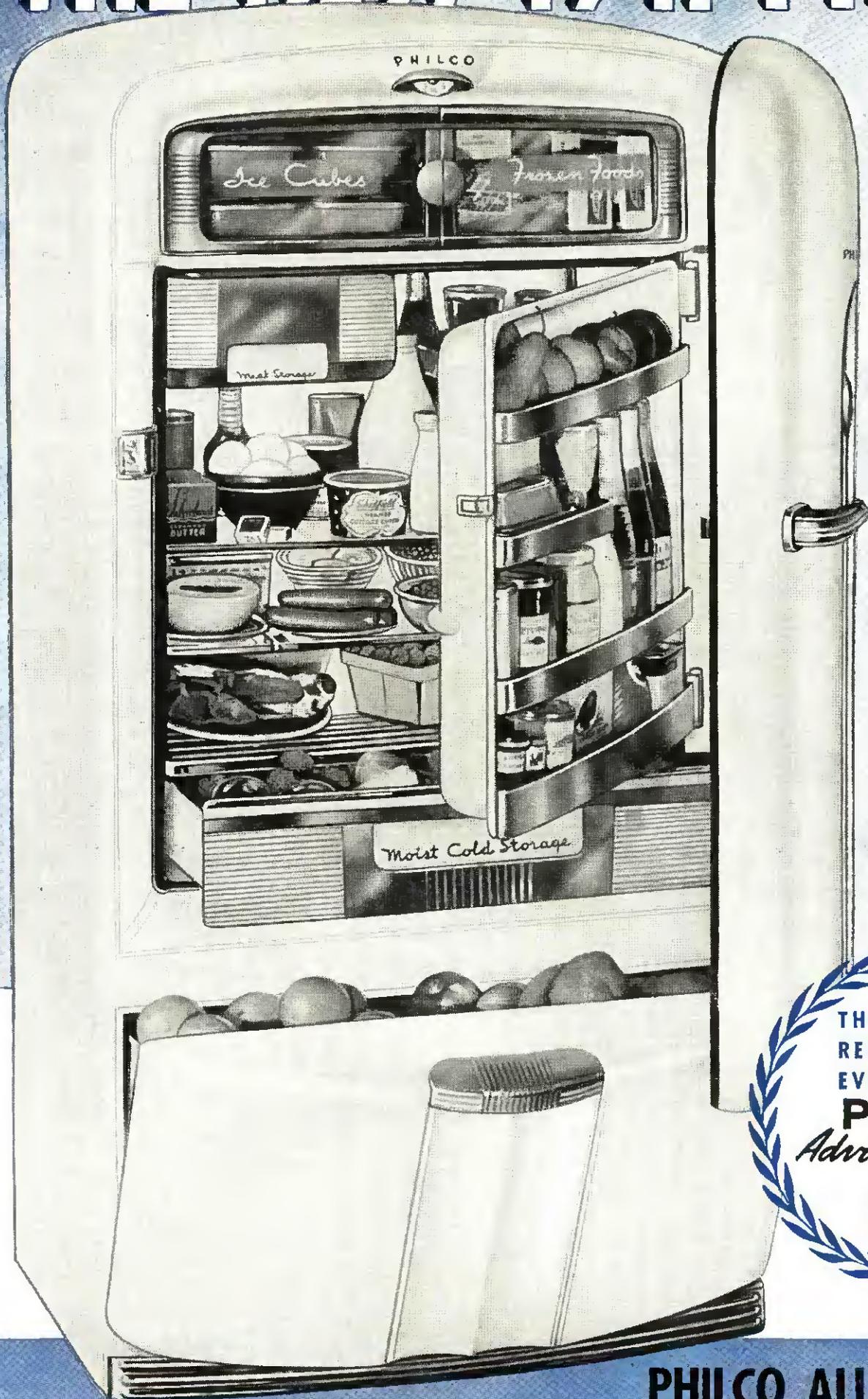
The lady was rather pleasant, but she had a fast tongue and a loud voice and ears which seemed to have no receiving apparatus; and the salesman, for a moment or two, tried very hard to talk to her in the usual way. She let off a lot of gas but her chief reason for not buying the box was that she couldn't afford it. He had been sticking in a deft remark here and there, which made no impression, and finally he just *relaxed* and said, "Yes, Mrs. Brown, *but it isn't going to cost you anything.*"

There came a faint smile to her lips, another flurry of chatter (to which the salesman listened quietly), and when it finally died down, he said again, in the same pleasant voice, "Nevertheless, Mrs. Brown, it isn't going to cost you anything."

That happened either three or four times, and finally the lady was stopped! She didn't believe the assertion, said so, and said something to the effect that he couldn't prove it. Then the salesman smiled and said, oh yes, he could prove it very easily—if only she would *allow* him to. (He didn't put too much emphasis on that "allow", you understand, and the word dripped with good-will when he said it, but she

(Continued on page 66)

# THE NEW 1941 PHILCO



*-and*

**THE**



**PHILCO ALL YEAR 'ROUND**

# REFRIGERATOR IS HERE

# PHILCO IS ON MARCH AGAIN!

Now, after rocketing to the front rank of refrigeration in two short years . . . after showing, last year, a record-breaking increase of over 100% in sales . . . now, for 1941—

## PHILCO PRESENTS A NEW CHALLENGE TO THE INDUSTRY!

Last year, Philco produced a *New Kind of Refrigerator* that contributed more new, original, saleable ideas to refrigeration than the industry had seen in 5 years!

And now . . . Philco engineers present for 1941—THE FULL FLOWERING OF THOSE NEW IDEAS . . . stepped up, improved and perfected in appearance, efficiency and construction . . . the most outstanding, the most beautiful, the most saleable line of refrigerators ever presented to the American public!

Hundreds of thousands of dollars were spent for new, modern machinery to put these 1941 Philco Refrigerators in a class by themselves for quality, dependability and exclusive sales appeal! It's a line of refrigerators that will make money for you . . . because it's the *most perfect sell-up line* ever offered in refrigeration, with powerful, logical step-ups and obvious added values in every price

bracket. It's a line that's planned in advance to carry on the Philco tradition . . . to give you the *highest average unit sale*, the biggest dollar margin, the greatest profit line in the industry!

The news of this great new line of refrigerators will greet the selling season in a smashing, dominating advertising and promotional campaign. The most spectacular, sales-making Philco promotions the industry has ever seen are now in the works!

The same leadership which has just brought to Philco dealers the *greatest season of radio profits in their history* . . . now offers to you the greatest, most valuable All Year 'Round Profit Franchise in the industry. Your Philco Distributor is bringing you the complete story.

**Get set to March On With Philco In 1941!**

**. . . the Most Valuable Franchise in the Appliance Field!**

# BUDGETING

## Gross Profits

By  
**ROBERT LEE COSHLAND**  
with Sirota, Kraus & Gleason, C.P.A., New York

**I**N FORMER ARTICLES, it was pointed out that effective budgetary control involves the use of three budgets—one for sales, one for gross profit rates and one for expenses. By continually following up on all three by comparison with actual results, it is possible to plan for net profits or losses several months in advance.

The previous articles referred to demonstrated the method of preparing and using sales budgets. We proceed now to the subject of gross profit budgets.

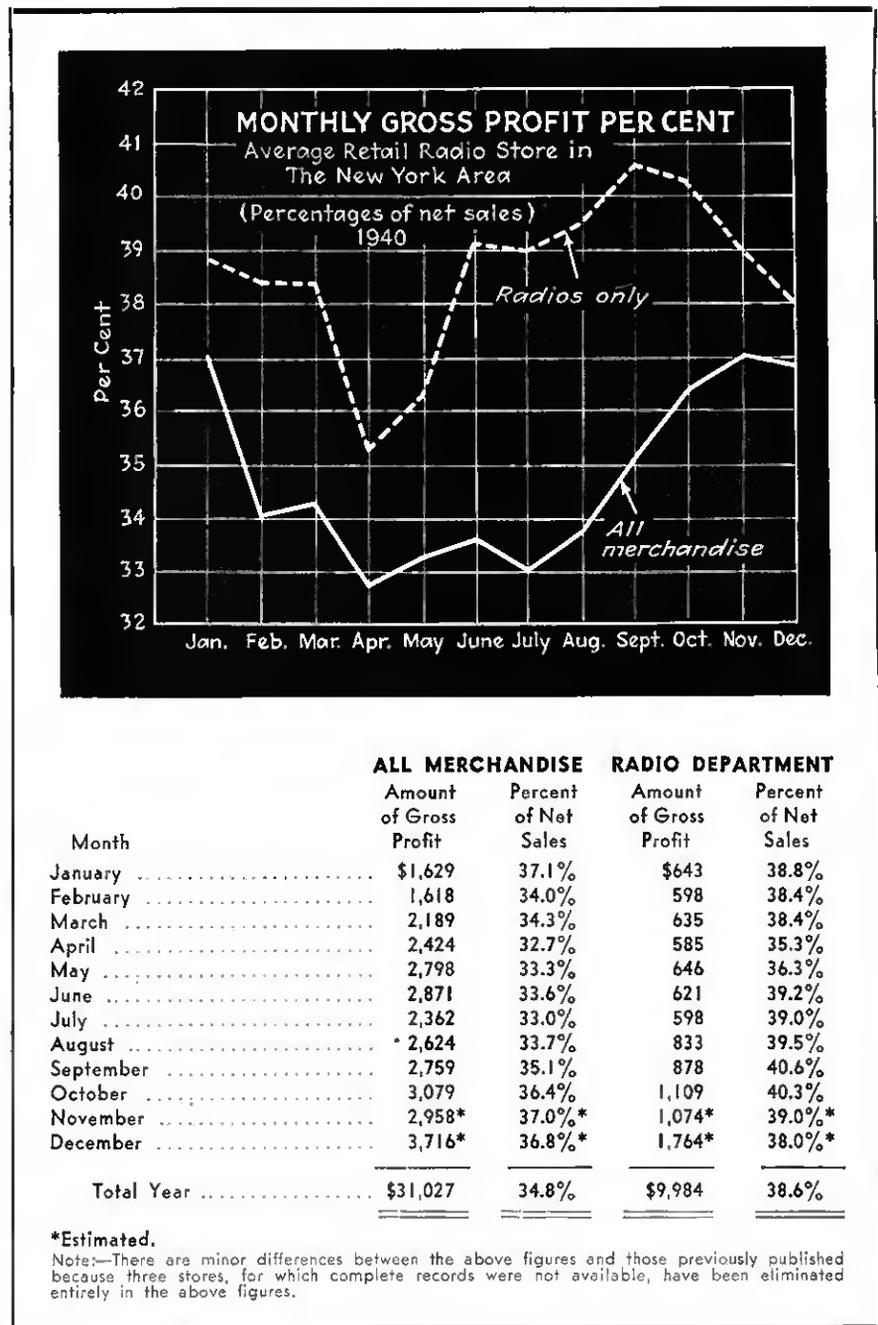
(A representative group of retail stores in the New York metropolitan area has been selected from among our clients for demonstration purposes in this series of articles. Although your own store may have special operating conditions, after making due allowance therefor you should find it both interesting and profitable to compare your results with those of the group, and to apply to your business the budget methods described).

### Figures for Comparison

In the accompanying chart and table we present the average actual monthly gross profit amounts and percentages, for 1940. The figures are for the average store and for the average Radio Department. Similar data should be prepared for your store for the other departments carried.

The purpose in having these figures is to provide a basis on which to plan monthly expenses for any desired period, and particularly for next year, thereby providing tentative net profits. If you have already formulated your monthly expected sales for 1941, you now can apply the gross profit percentages here shown (or any which you have prepared from your own 1940 experience).

For example, if you anticipate net sales for January 1941 to be \$4,000.00, using the January gross



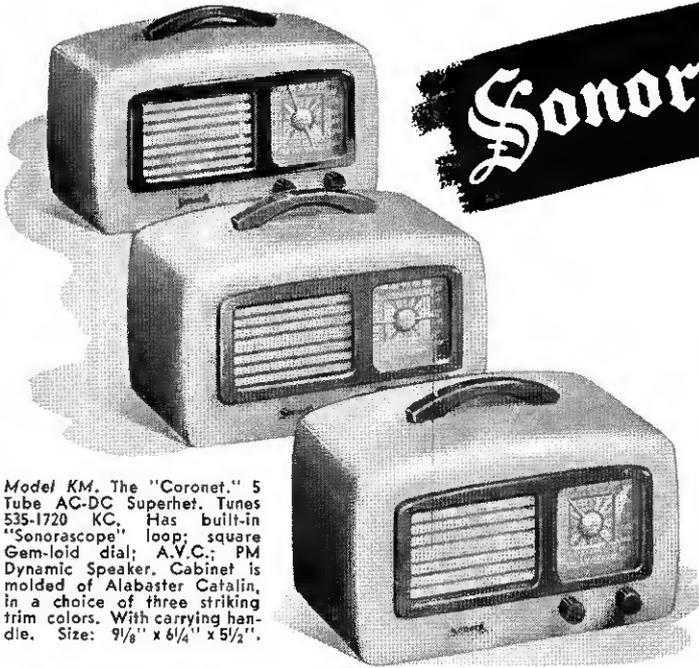
profit rate shown in the table, of 37.1%, your gross profits will be about \$1,484.00 for the month. Accordingly, if your expected expenses exceed this amount you know in advance that you will wind up the month in the red.

For greater accuracy in forecasting gross profit, it is advisable to

calculate each department separately, then totalling, rather than using the foregoing method. An error of one percent in the 37.1% applied to the total store's sales might result in a sizeable difference in gross profit, whereas a similar percentage discrepancy in any one department would not.  
(Continued on page 68)

# Sonora - ALL SET FOR '41!

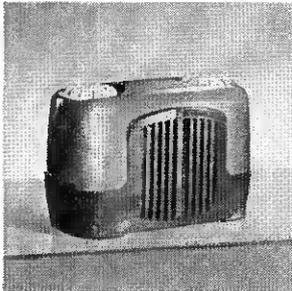
Yes, SONORA is all set for '41 with a COMPLETE in-demand Start-of-the-Year Line! Here's merchandise you can sell—starting right now—with all the smart styling, all the heads-up engineering, all the top value you've come to expect from SONORA. Plastics, "Gems", wood mantel models, combinations, electric phonographs—SONORA has the best-selling answer for today's market. SONORA for '41, backed by the most desirable Jobber Policy in radio, is Radio's Big Profit Opportunity this new year!



**Model KM.** The "Coronet." 5 Tube AC-DC Superhet. Tunes 535-1720 KC. Has built-in "Sonorascope" loop; square Gem-loid dial; A.V.C.; PM Dynamic Speaker. Cabinet is molded of Alabaster Catalin, in a choice of three striking trim colors. With carrying handle. Size: 9 1/8" x 6 1/4" x 5 1/2".



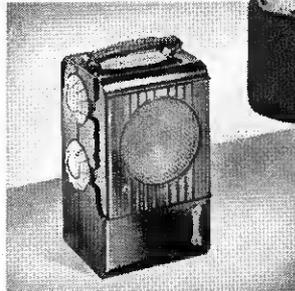
**Model LR-147.** The remarkable new SONORA "Triple-Play" Portable. Operates from self-contained batteries, from 110 volts AC or from 110 volts DC. Tunes 535-1720 KC. Superhet circuit features: built-in "Sonorascope" loop; PM Dynamic Speaker; A.V.C.; large Slide-Rule Dial. The open-face carrying case is of striking new design with handsome walnut overlay grille. Finished in attractive brown, with sturdy carrying handle. Size: 14" x 9 1/2" x 6".



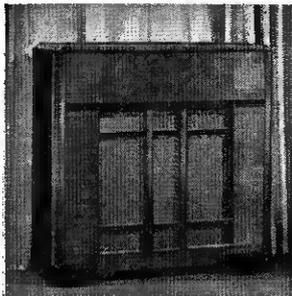
**Model KF.** These new "Gems" set a jewel-like note in radio styling! They feature a new plastic design in duotone colors—available in three distinctive 3-color combinations. 4 Tubes, Tunes 535-1720 KC. Has PM Dynamic Speaker. America's most distinctive tiny radio. Size: 5 1/8" x 7 1/6" x 4 1/4".



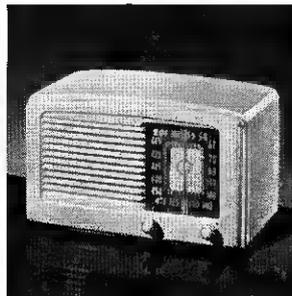
**Model KNF-148.** A distinctive 5 Tube AC-DC Phonograph-Radio. Tunes 535-1720 KC. Has built-in "Sonorascope"; PM Dynamic Speaker; Airplane Dial; 9" turntable; Crystal pickup; plays 10" and 12" records with lid closed. Walnut cabinet of exceptional beauty; Size: 9 1/4" x 14 7/8" x 11 3/8".



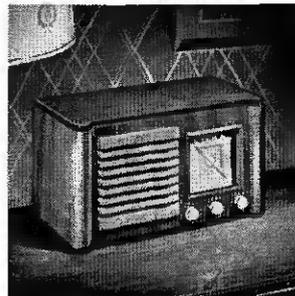
**Model KG-132.** The "Brownie"—SONORA's original Personal Portable—still the leader! 4 Tube Superhet. Tunes 535-1720 KC.; built-in "Sonorascope"; PM Speaker. Noted for longer battery life; more power. In beautiful brown plastic case. Size: 8 1/4" x 5" x 4 1/4".



**Model KXF-95.** 6 Tube AC Radio-Phonograph. Tunes Foreign and domestic bands. Has "Sonorascope" 10-inch Dynamic Speaker; Push-Button tuning. Includes Automatic Record Changer for 10 and 12-inch records. Massive walnut console. 36" x 32" x 15". The year's Big Hit in a modestly-priced Combination instrument.



**Model KT.** The "Cameo"—a 1941 SONORA original Beauty Radio! Available in Ivory or Walnut plastic. 5 Tube AC-DC Superhet tunes 535-1720 KC. Has built-in "Sonorascope"; PM Dynamic Speaker; A.V.C.; extra-large Airplane Dial. Size: 10 3/4" x 6 3/8" x 6 1/2". An outstanding SONORA Best Seller design triumph.



**Model LD-93.** 5 Tube AC-DC Superhet. Tunes two full bands for Foreign and domestic reception. Has built-in "Sonorascope"; large Clock-type Dial; PM Dynamic Speaker; A.V.C. Presented in a striking-looking walnut wood cabinet. 12 3/8" x 7 1/8" x 6 3/8". Designed to meet America's radio requirements for 1941.

## JOBBERS . . WRITE FOR COMPLETE DETAILS . .

Send for SONORA's impressive 1941 brochure—"Listen America"—that illustrates and describes the 1941 "Clear as a Bell" complete home entertainment line. And write for the new SONORA booklet describing the only successful "Jobber Plan for Profitable Radio Selling"—a significant milestone in radio merchandising.



**SONORA RADIO & TELEVISION CORP.**

2626 WASHINGTON BLVD.  
CHICAGO, ILLINOIS



**STOCK REQUIREMENT RECORD**

MANUFACTURER \_\_\_\_\_ Volume Controls \_\_\_\_\_

Mfg's No.	Min. Stock	Date																		
		J	F	M	A	M	J	J	A	S	O	N	D							
121-250M	25	14	18	14	8	12	15	6	30	39	44	52								
122-250MT	25	20	27	20	13	7	15	9	18	27	40	44								
105-500M	30	26	21	17	19	12	13	8	34	52	44	42								
124-500MT	25	20	22	20	16	10	8	5	23	27	31	35								
116-1 Meg.	25	18	14	17	13	11	12	11	19	23	20	20								
135-1 Meg.T	25	27	17	17	18	9	16	14	36	24	33	43								
127-2 Meg.	15	9	5	5	7	14	11	4	13	16	12	18								
142-2 Meg.T	20	15	19	14	17	11	19	7	30	21	24	32								

MONTHLY Record

DAILY Record

**STOCK REQUIREMENT RECORD**

MANUFACTURER \_\_\_\_\_ November 1940  
VOLUME CONTROLS \_\_\_\_\_

Mfg's No.	Min. Stock	Date																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
121-250M	25	1	4	5	6	7	8	11	12	13	14	15	16	18	19	20	21	22	25	26
122-250M-T	25	1	4	5	6	7	8	11	12	13	14	15	16	18	19	20	21	22	25	26
105-500M	30	1	4	5	6	7	8	11	12	13	14	15	16	18	19	20	21	22	25	26
124-500M-T	25	1	4	5	6	7	8	11	12	13	14	15	16	18	19	20	21	22	25	26
116-1 Meg.	25	1	4	5	6	7	8	11	12	13	14	15	16	18	19	20	21	22	25	26
135-1 Meg.T	25	1	4	5	6	7	8	11	12	13	14	15	16	18	19	20	21	22	25	26
127-2 Meg.	15	1	4	5	6	7	8	11	12	13	14	15	16	18	19	20	21	22	25	26
142-2 Meg.T	20	1	4	5	6	7	8	11	12	13	14	15	16	18	19	20	21	22	25	26

*Simple*

# Parts STOCK CONTROL

By HAROLD F. JENKINS

Fred C. Harrison Co., Elmira, N. Y.

**T**HE PROBLEM of an efficient yet simple stock control system for the radio parts jobber presents some difficulties.

We have experimented with several types, and have had the best luck with a plan so simple that it can almost be compared with the old shipping department's time-honored chalk-marks-on-the-wall method.

A good system should, first of all, let you know what items are getting low and need reordering. Sometimes overlooked is the fact that it should also show any drop in demand on a part, indicating the necessity to reduce the number carried on hand.

### "Chalk Marks On A Wall"

We use a book of simple, lined work sheets, a group of sheets for each brand we carry. These sheets are designed for a month's use, at which time columns are totalled and entered on a similar set of sheets which record monthly sales for a year's period.

First left hand column on either is for manufacturer's part number. Next column indicates our minimum stock. Balance of space across sheet is used for daily entry of units

sold, as taken from our cash and charge slips each morning for the day preceding.

For daily posting, a stock clerk who is completely familiar with parts and their numbers, does the work. About one hour is required for this posting.

Our original planned routine was to send in factory orders about once every two weeks, at which time the entries were checked off with a red pencil. However, we find that our record has a much better use. When we receive an order for a part not stocked, we can usually find enough parts on our record to add to this, making an acceptable order to send to our manufacturer. As many factories require a minimum order of a fixed amount, this plan allows us to give faster service to our customers on "specials."

Our policy now is to send numer-

ous small orders instead of one or two large ones monthly. Some readers will call this hand-to-mouth buying. We find it valuable mainly in giving our servicemen better service on unusual parts than they can obtain elsewhere.

### Indicates Demand Trend Too

Do we use this recording system for all our parts? Most decidedly we do not.

Most efficient is a combination of this, and actual shelf inventory of some stocks. Volume controls, condensers in boxes, cones, and similar goods are posted on the work sheets. Tubes, and small parts such as resistors, by-passes, and hardware kept in individual bins are more quickly checked by direct inventory than by posting. In general, all boxed parts except tubes are posted from sales sheets.

About the monthly total sheets.

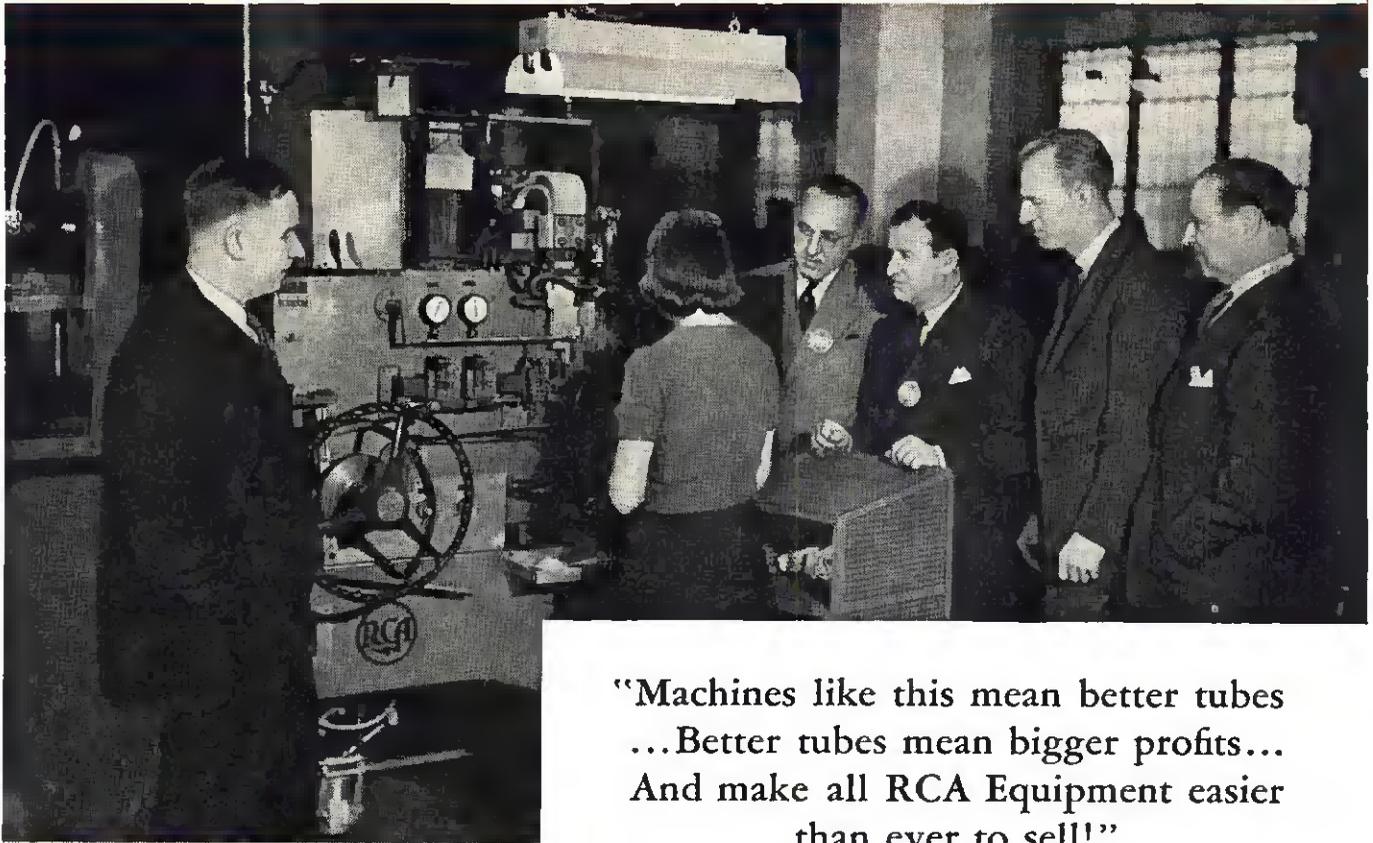
Posted from the daily ones, they show us the monthly demand for each part throughout the year. Not only does this yearly record show us trends toward obsolescence, but with several year's sheets to refer to, we can tell which type of parts are in most demand in certain seasons. Constant reference allows us to anticipate heavy demands in advance. For example, car aerials peak

(Continued on page 68)

## YOU ASKED FOR IT

**THIS is a "request number." Letters from many jobbers over the past two months indicated a widespread need**

# "Precision means Profits!"



AARON LIPMAN (third from right) of Newark, N. J., nationally-known RCA Tube and Equipment Distributor, visits RCA's Harrison Tube Plant to learn first hand from engineering and factory executives why RCA preferred type tubes are better.

"Machines like this mean better tubes ... Better tubes mean bigger profits... And make all RCA Equipment easier than ever to sell!"

Highly specialized automatic machines of amazing speed and precision! They reach a new peak of development as the Preferred Type Tubes Program concentrates the great facilities of RCA on making *more* tubes of *fewer* types; and making them *better!*

Does that help *you?* Distributors who have visited the RCA Tube Plant in Harrison vote "YES!" For you and they get

faster turnover of fewer tube-types as the 27,000,000 *Preferred Type* tubes in new 1940 receivers call for replacement!

And you get the good-will that comes of selling *better* tubes ... prestige that makes *all* your RCA Equipment still easier to sell! Better business-builders in 1941 than ever before are RCA Power Tubes, Receiving Tubes, Test Equipment, Amateur Equipment!



Over 380 million RCA radio tubes have been purchased by radio users . . . In tubes, as in test equipment and accessories, it pays to go RCA All the Way.

WHERE ELSE CAN YOU GET THIS SUPPORT?

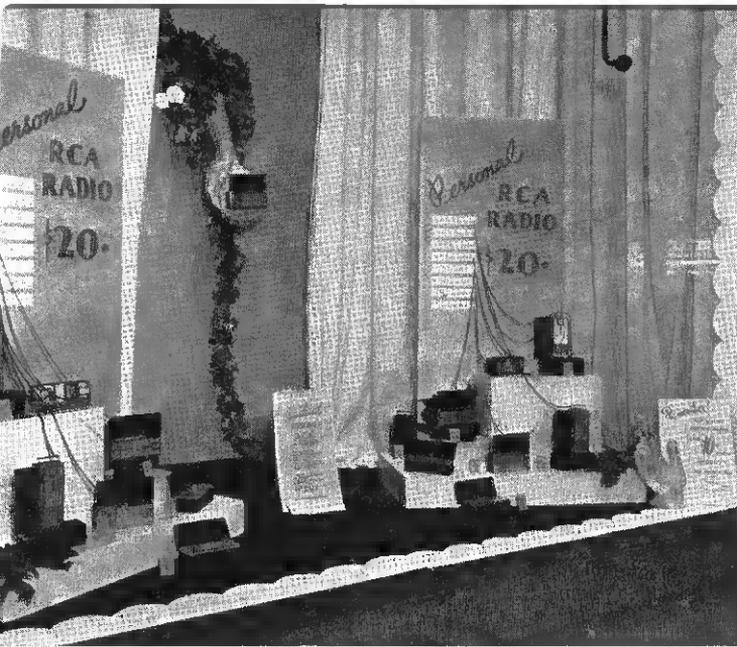
Grow  
with the



TUBE AND  
EQUIPMENT

FRANCHISE

RCA Manufacturing Co., Inc., Camden, N. J. • A Service of the Radio Corporation of America  
In Canada, RCA Victor Co., Ltd., Montreal



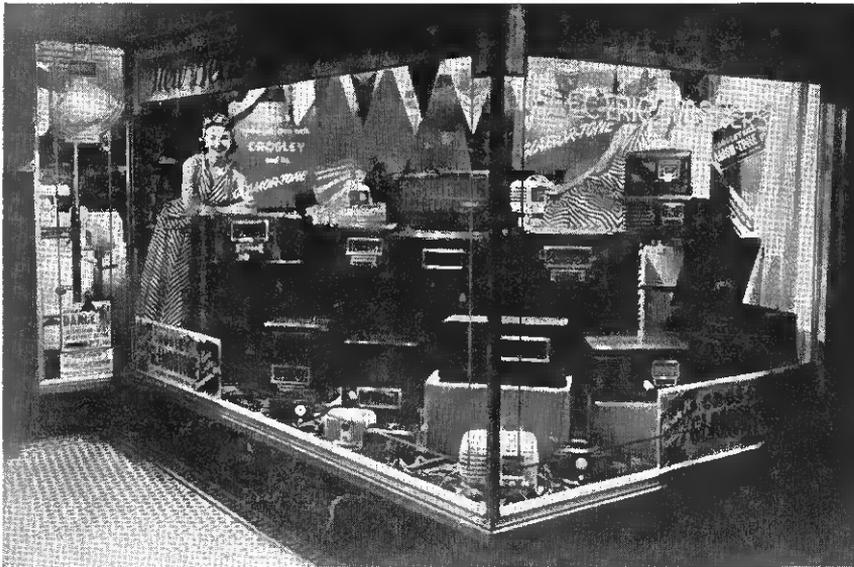
**ESTHETIC**—Printed on cards, features of personal type radios tie-in with ribbons to sets. Handy, they attract shoppers to Goldblatt Bros., Chicago.

*New*

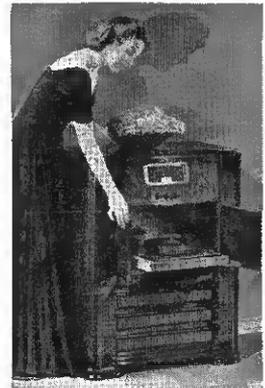


**EMERSON 403** Combination radio and phonograph, *Phonoradio*, is a 5-tube ac superheterodyne. Covers standard American broadcasts. Plays all size records up to and including 12 inch. Housed in an 18th century table model with typical frette work. Price \$29.95. Also available in model No. 403 AC-DC, \$39.95. Emerson Radio and Phono. Mfg. Co., 111 Eighth Ave., New York, N. Y.

## MORE Windows

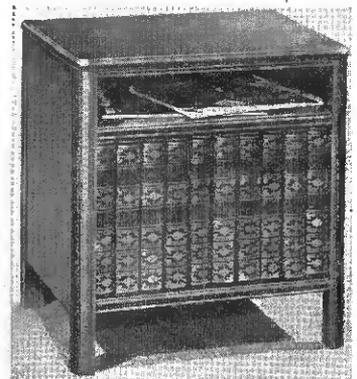
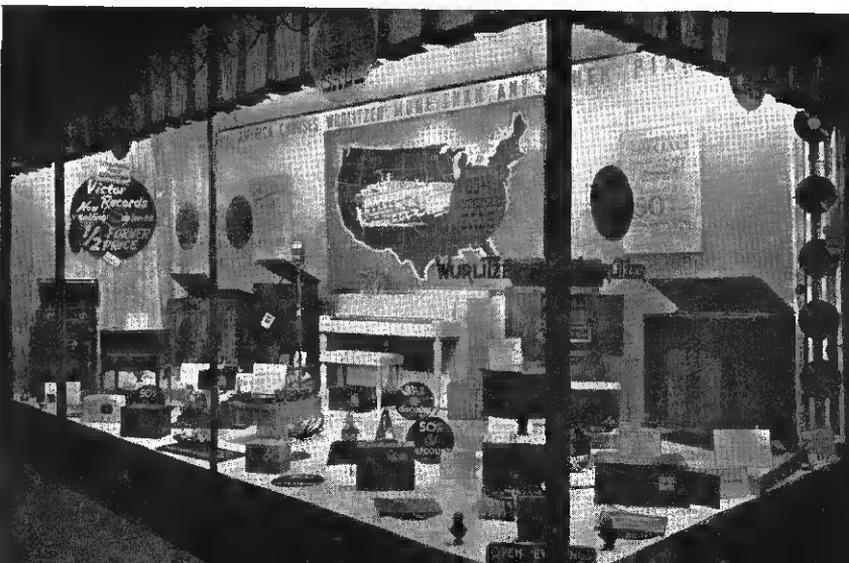


**GIRLIE SHOW**—Compacts and consoles show up well in this window of McBreen Home Utilities, Melrose Park, Ill. Cute cutouts add cheesecake



**ADMIRAL 71-M6** Console radio combination with the *slide-a-way* automatic phonograph which plays ten 12-inch or twelve 10-inch records. Has 6 tubes, ac superhet, variable tone control, two wave bands. List price \$69.95.

**RECORD SALE**—Painted on display discs and scattered throughout the window, the new low record prices call attention to radios on display at Wurlitzer, New York



**ADMIRAL 101** Record cabinet specially designed to harmonize with Admiral's table model radio-phonograph combinations. Complete with one 12-inch and four 10-inch albums. Continental Radio & Tele. Corp., 3800 Cortland St., Chicago, Ill.

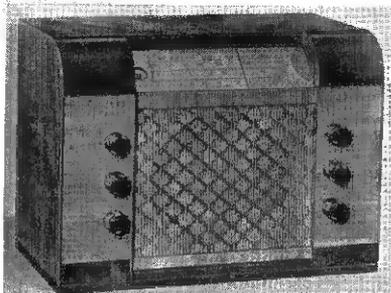
# Products . . .



**PILOT TP-32** Table radio-phonograph combination housed in a sliced walnut veneer with acoustical louvre grille. Features 6 tubes, ac operation, 2 bands, and 8-inch speaker. Plays 10- and 12-inch records. List price \$69.50. Pilot Radio Corp., 3706-36 St., L. I. City, N. Y.

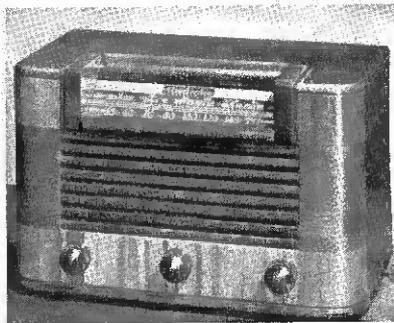


**FREED-EISEMANN** Console *Hepplewhite* cabinet houses model FM 42. This 16-tube radio makes available FM and regular broadcasting, together with an automatic phonograph playing 10- and 12-inch records. Comes in mahogany or walnut. Freed Radio Corp., 39 West 19 St., New York, N. Y.

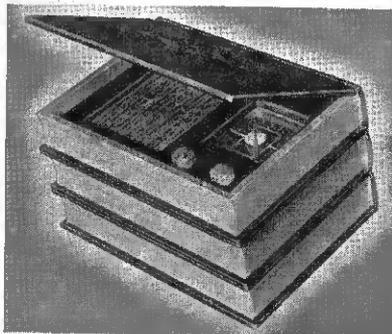


**HOWARD 780** A home receiver designed especially for DX hound and short wave listeners. Tunes from 13 to 555 meters (540 kc. to 22 mc.). Includes a band expander that spreads closely grouped stations far apart for easy tuning. Available in 8 or 10 tube models. Features 8-inch speaker; eye angle dial; r.f. stage on all bands. Howard Radio Co., 1731 Belmont Ave., Chicago, Ill.

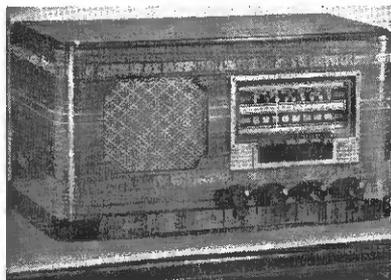
**RADIOLA 515** Table type receiver has 6 tubes, 2 bands, and is housed in a modern style wood cabinet of walnut veneers. Features two built-in antennas—one for domestic reception, and the other for foreign tuning; one stage of r.f. amplification; two point tone control. The attractive horizontal dial is placed at a 45 degree angle for easy reading. Measures 8 1/2 high x 13 1/2 wide x 7 inches deep. List price \$24.95. RCA Mfg. Co., Camden, N. J.



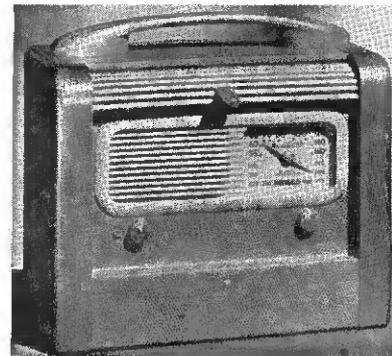
**SENTINEL 238-V** Book radio, a 5 tube (including rectifier) ac-dc superheterodyne, equipped with built-in loop aerial, and automatic volume control. Tunes standard broadcasts. Encased in maroon-colored simulated leather with title inscription and escutcheon and leaves embossed in antique gold finish. Measured 10 1/2 x 7 1/2 x 5 7/8. List price \$19.95.



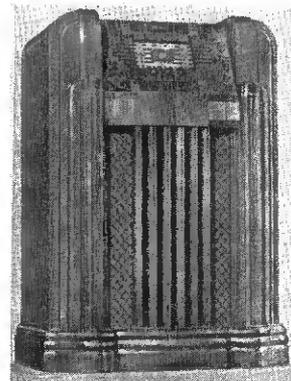
**WESTINGHOUSE WR-12x7** This table type radio is a 5-tube ac-dc superheterodyne with 2 bands, 6 pushbuttons, and 5-inch speaker. Eastern list price \$29.95. Westinghouse Radio Headquarters, 150 Varick St., New York, N. Y.



**G-E J-501W** Table model in ivory plastic cabinet has built-in antenna, 4-inch dynapower speaker, full-vision illuminated dial. This ac-dc superheterodyne covers standard broadcasts and has automatic volume control. General Electric Co., Bridgeport, Conn.

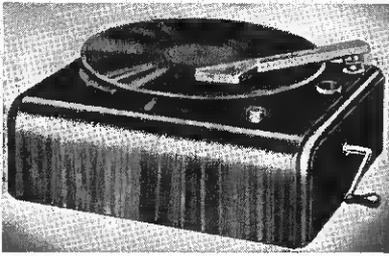


**PHILCO 844-T** A 7-tube, 3-way, indoor outdoor, portable radio encased in solid walnut with beaver graining case. Features the *tambor* door that rolls up into the case to uncover the instrument panel. Measures 12 3/8 high, 13 3/8 wide and 6 7/8 inches deep. List price \$39.95.



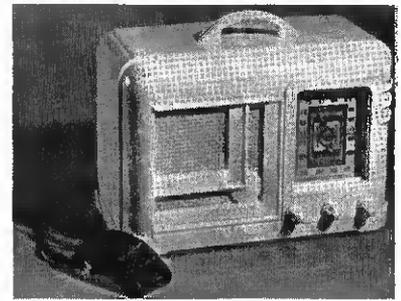
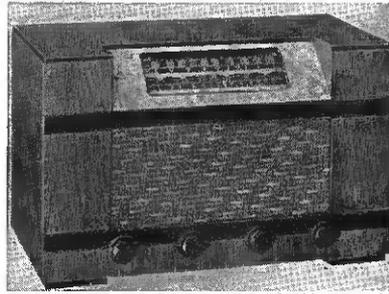
**PHILCO 625-P** The tilt-front, photo-electric radio phonograph will retail for \$99.95. This new model marks the introduction of the first *Beam of Light* photo-electric combination to sell for less than \$129.95. Includes the automatic record changer that plays ten 12-inch or twelve 10-inch records. Has 7 tubes. Covers standard broadcasts, American and foreign short wave bands. Philco Radio & Tele. Corp., Philadelphia, Pa.

**FARNSWORTH BK-87** An 18th Century cabinet, the *Stratford*, is a radio-phonograph combination console. Has 8 tubes and two bands from 540 to 1600 kc. and 5.8 to 18.1 mc., six pushbuttons; 12-inch speaker. Phonograph plays automatically fourteen 10-inch or ten 12-inch records. Provides for a record album compartment. Farnsworth Tele. & Radio Corp., Ft. Wayne, Indiana.



**SENTINEL 244-G** Record player for battery radios plays 10- or 12-inch records through any battery radio. Spring wound motor, crystal pick-up. Compact walnut veneer cabinet. Size 13 1/4 x 4 1/2 x 8 3/4. Sentinel Radio Corporation, 2020 Ridge Ave., Evanston, Ill.

**DE WALD 672** This farm radio model has 6 tubes, large PM dynamic speaker, large 3-dimension glass dial, variable tone modulator. List price \$39.95, De Wald Radio Mfg. Corp., 440 Lafayette St., New York, N. Y.



**FADA 139V** Silent radio with the dictograph *Mystic Ear* is really two radios in one. It plays and operates just like a standard radio at full volume through the speaker. Then by turning the switch, the speaker becomes silent and only the mystic ear is in operation. It is a 5-tube, plus ballast, ac-dc superheterodyne in ivory plastic cabinet complete with dictograph mystic ear. List price \$29.95. Fada Radio & Elec. Co., 30-20 Thompson Ave., L. I. City, N. Y.

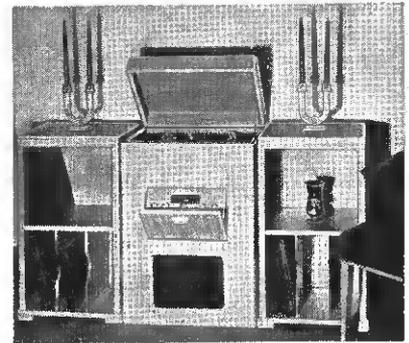
**I COULD  
FIX IT WITH  
MY EYES  
SHUT!**

**HOURS LATER..**

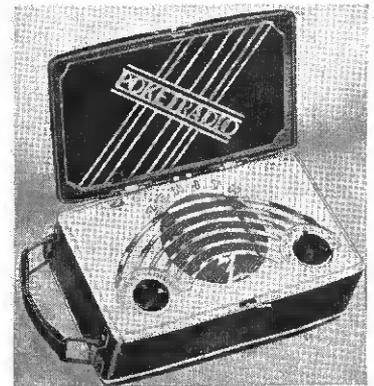
WHERE'S OUR RADIO?

IF I GET MY HANDS ON YOU YOUR EYES WILL BE SHUT!

JOE DOAVES  
RADIO REPAIRS



**ANSLEY** Here is a 3 piece combination radio and two record cabinets. The console 8-tube radio phonograph combination features the tilted instrument panel for convenient dialing. List price \$163.50, complete with radio and cabinets. Ansley Radio Corp., 4377 Bronx Blvd., New York, N. Y.



**ZENITH 4K600** Pocketradio has 4 tubes, 3/2-inch speaker, weighs 4 lbs. 9 oz. complete with batteries. Measures 3 3/4 x 4 1/4 x 7 1/2 inches. Radio turns on automatically when cover is opened. Encased in bakelite and leather. List price \$19.95 f.o.b. factory. Zenith Radio Corp., Chicago, Ill.

**STOP WORRYING**  
About Broken Delivery Promises!

Stop racing the clock. Stop working on your nerves. Stop trying to "outguess" faulty receivers. **KNOW** what the manufacturer puts into every set that comes to your bench. Start all your jobs right—locate trouble quickly—reach for your Rider Manuals. Successful service shops all over the world depend on them for data on alignment, I-F peaks, operating voltages, parts lists and value, voltage ratings of condensers, wattage ratings of resistors, coil resistance data, gain data, and all essential information that servicemen need for quick, easy, profitable trouble shooting.

Stop being panicked by late deliveries. Be sure you have all Eleven Rider Manuals.

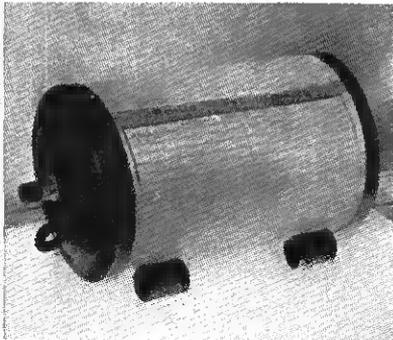
**JOHN F. RIDER Publisher, Inc.**  
404 Fourth Avenue New York City  
Export Division: Roeko-International Elec. Corp.  
100 Varick St., New York City Cable: ARLAB

CHECK! Order Missing Volumes		
Vol.	Price	Covering
XI	\$10.00	to May 15, 1940
X	10.00	1939-40
IX	10.00	1938-39
VIII	10.00	1937-38
VII	10.00	1936-37
Vol.	Price	Covering
VI	\$7.50	1935-36
V	7.50	1934-35
IV	7.50	1933-34
III	7.50	1932-33
II	7.50	1931-32
I	7.50	1920-31

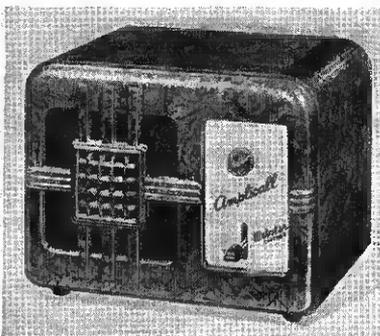
*You* **NEED RIDER MANUALS**

**GENERAL** Automatic record changer mechanism will play a series of standard 10- or 12-inch records of the type generally available today, or records of any size up to 12 inches changed manually. This changer does not require any adjustment by operator for playing different size records. Stacks of mixed sizes may be played but this is not recommended or guaranteed. General Instrument Corp., 829 Newark Ave., Elizabeth, N. J.

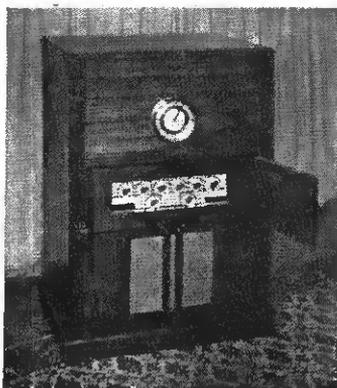
**WILCOX-GAY** Hi-Clearance cutting stylus for making slow-speed recordings on dual speed *Recordio*. It also operates on standard speeds. The flat side of the stylus is inserted against the locking screw. Wilcox-Gay Corp., Charlotte, Michigan.



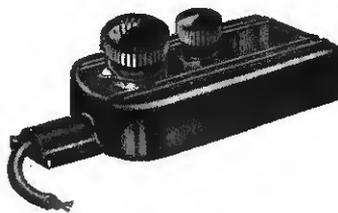
**RADIO PRO-GR-LOG** A personalized radio program reminder in the shape of a rotating glass cylinder to write in your favorite program for any hour of the day, seven days a week continuous use. A small 7½ watt globe provides a soft glow for easy reading. Available in 3 attractive finishes—polished nickel, antique bronze, and mahogany. List price \$1.95. Marvin Clark Mfg. Co., 561 Paramount Bldg., Hollywood, California.



**WEBSTER-CHICAGO, W-102** Two-way intercommunication system assembled in attractive walnut finish bakelite cases, small and compact requiring but a minimum of desk space. This model comprises one master station and one remote station. When the master calls the remote station, the latter can answer back without operating any controls. Master station is equipped with a volume control on the front panel. Webster-Chicago Corp., 5622 Bloomingdale Ave., Chicago, Ill.

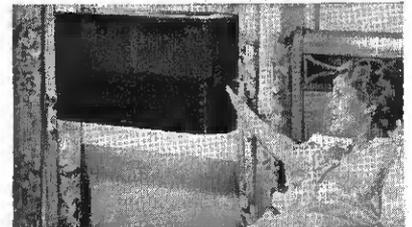


**RANGERTONE** Complete amplifying facilities may be obtained in compact form in the deluxe *Tower Tone* for 1941. Incorporates 70 watts of audio power, 4 microphone inputs, one phonograph, 26 pound 16-inch turntable. Optional equipment includes the 24 hour clock. Price \$550.00. Rangertone, Inc., 201 Verona Ave., Newark, N. J.



**TURNER** A new magnetic pickup for musical instruments, model MM, which offers immense volume from any stringed instrument, without feedback. A novel clamp has been designed for this pickup to fasten it securely to the instruments. Finished in a rich brown enamel, measures 3½ inches long and 1 5/16 inches wide. Complete with a 25 ft. cable, list price \$12.50. The Turner Co., 915 17th St., N.E., Cedar Rapids, Iowa.

**WESTINGHOUSE WB-06R** This *Mobilair* is a two-way air conditioner. By turning a dial, the unit can cool a room in summer or heat it in spring or fall. In mild climate it can be used for cooling or heating the year round. It comes equipped with an electric cord which can be plugged into an electric outlet. Westinghouse Elec. Mfg. Co., Mansfield, Ohio.



## FOR YOUR BASIC INSTRUMENTS *only the best are good enough*

IT may be difficult to avoid some obsolescence in tube testing equipment—BUT—a set tester represents an investment as basic and permanent as any tool in your shop or kit!

Over the years you must have discovered that it just doesn't pay to buy anything but the best in basic and permanent tools—and right there you have the reason for acquiring one of these BASIC Simpson Testers.

Start 1941 right: Make the acquaintance of one of these finely built Simpson Testers, and you will thank the day

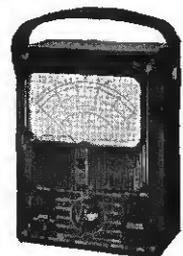
that it became your trusted helper on every service job. The instruments illustrated cover a wide range of individual needs, but they have two great attributes in common—the life-time accuracy that is based squarely on the superlative Simpson Meter, and the precision craftsmanship that is reflected in every detail of assembly.

Thanks to advanced design, modern facilities and streamlined production methods you can acquire one of these finer instruments at the moderate prices listed.

**SIMPSON ELECTRIC CO., 5216 Kinzie St., Chicago, Ill.**



**MODEL 320** (below)—Giant tester with 9-inch illuminated meter. Has 50 ranges—nine A.C. and nine D.C. voltage ranges; six milliampere ranges; five resistance ranges; four capacity ranges; seven decibel ranges. Entirely A.C. operated. All voltage ranges have resistance of 1000 ohms per volt. Test leads included. Rack mountings available. Dealers net price..... **\$37.50**



**MODEL 260**—The outstanding value in a high sensitivity set tester for television and general servicing. Ranges to 5000 volts, both A.C. and D.C.—at 20,000 ohms per volt D.C. and 1000 ohms per volt A.C. Resistance readings from 10 megohms down to ½ ohm and five decibel ranges from -10 to +52 D.B. Also 3 milliamperes and 1 microampere range. Dealers net price **\$27.50**



**MODEL 240**—A remarkable value in a pocket size (5½x2 7/8x1 3/4") 3000 volt, self-contained tester. Four A.C. and five D.C. voltage ranges at 1000 ohms per volt; 0-15, 150, 750 milliamps; 0-3000, 300,000 ohms. Dealers net price..... **\$14.75**



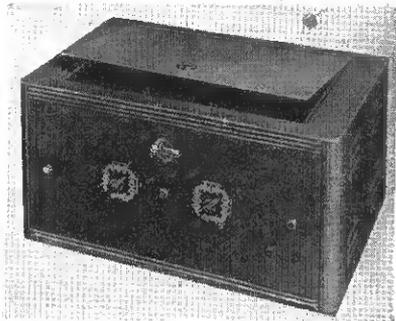
**MODEL 215**—Incorporates all essential ranges for modern servicing. Offers large, 4½ inch, easy to read dial, at low price. Five A.C. and D.C. voltage ranges; five decibel ranges; 0-10-100-500 milliamps; 0-250 microamps; 0-4000-400,000 ohms; 0-4 megohms. Dealers net price..... **\$22.85**

**MODEL 230**—Smallest A.C.-D.C. instrument on the market, yet has ranges of 0-10, 250, 1000 volts A.C.; 0-10, 50, 250, 100 volts D.C.; 0-10, 50, 250 D.C. milliamps; 0-1000, 100,000 ohms. Dealers net price..... **\$14.25**



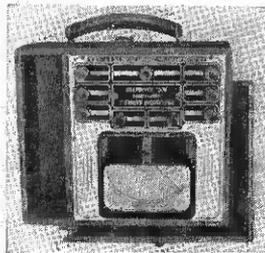
# SIMPSON

INSTRUMENTS THAT *Stay* ACCURATE

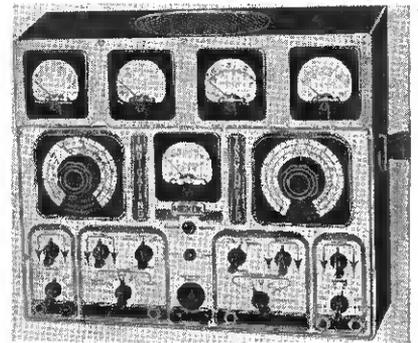


**CLARION A-77K** This 51 watt booster amplifier was especially designed for use where wide coverage is desired. Circuit has 6L6 tubes in push-pull parallel with inverse feedback. Gain, high impedance input, 65 d.b. Frequency response, 40 to 12,000 c.p.s. Peak output, 75 watts. Output impedance, 2, 4, 8, 16, 500 ohms. For operation on 110-125 volts, 50 cycles ac. List price \$102.25. Transformer Corp. of Amer., 69 Wooster St., New York, N. Y.

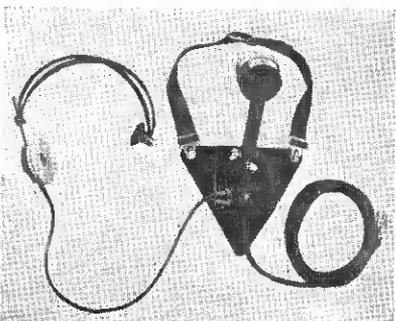
operators of wired music systems. Weighs one half pound assembled. Adjustable fabric neck-band. Available in the new single or double headset in high or low impedance. Universal Microphone Co., Inglewood, Calif.



**PRECISION** This company announces a new, rugged, popularly priced multi-range ac ammeter designed for many applications. Series "J" can be used on all line frequencies from 25 to 60 cycles; 300 milliamperes full scale to 60 amperes; and 8 ac current ranges. Available in 3 models. Precision Apparatus Co., 647 Kent Ave., Brooklyn, N. Y.

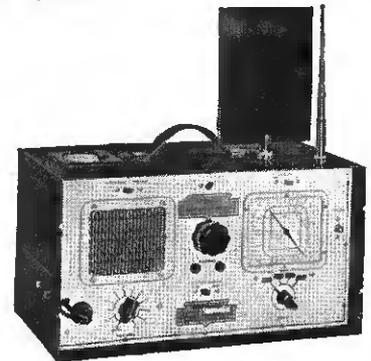


**SPRAGUE IL-2** Portable interference locator designed for the location and isolation of radio interference problems. Tuning ranges are 500 to 1700 kc., 1.7 to 5 mc., and 15 to 32 mc. Comes equipped with directional loop antenna, and an extensible pole antenna. List price \$79.90. Measures 15 x 11 x 8 inches and weighs 23 lbs. Sprague Products Co., North Adams, Mass.



**UNIVERSAL** This breastplate Dispatcher type of microphone leaves the operator's hands free. Designed particularly for

**HICKOK 155** Radio testing instrument, Trace-ometer, with a self-contained speaker internally connected for monitoring either r.f., i.f., or a.f. channels. Measurements are: Signal measurement in microvolts at any point of the entire r-f section; measurement of actual oscillator voltage throughout its entire range; measurement of all dc voltage, a.v.c., a.f.c., power supply, etc.; measurement of actual wattage consumption of any ac system to 300 watts. The Hickok Electrical Instrument Co., 10304 Dupont Ave., Cleveland, Ohio.



## Important Announcement To All Servicemen! NOW YOU CAN JOIN THE NATIONAL RSA For Only \$1.00 a Year!



Every Serviceman can have a voice in his destiny in his own industry! The RSA extends its services and makes it possible now for all Servicemen to enjoy the advantages of membership in this national organization

for only \$1.00 a year.

Yes—for as little as 2¢ a week you get the RSA Membership Certificate and receive the RSA House Organ. You have access to the RSA Technical Helps Bureau, and you are able to participate in all the other functions and benefits which the RSA offers.

As rapidly as local chapters are formed, protected territories will be established for them. Applicants in present chapter areas will be referred to the local chapter.

This is your opportunity. Don't let it slip away. Join now with thousands of your fellow servicemen in this great organization—the organization that's doing things for you!

Fill out the coupon, attach a \$1.00 bill and mail it now!

### RADIO SERVICEMEN OF AMERICA, INC.

"Reliable Service Assured"

JOE MARTY, JR., EXECUTIVE SECRETARY  
304 S. DEARBORN ST., CHICAGO, ILL.

RADIO SERVICEMEN OF AMERICA  
304 S. Dearborn St., Chicago, Illinois.

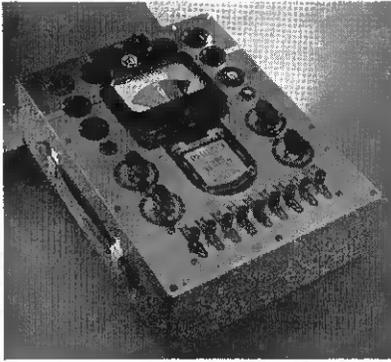
\$1.00 enclosed for 1941 National Dues in RSA

Name .....

Address .....

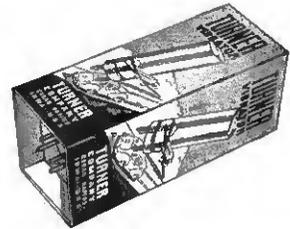
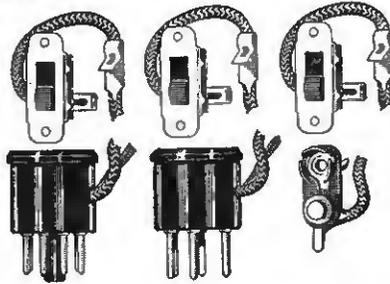
City..... State.....

Radio Ret.—Feb.

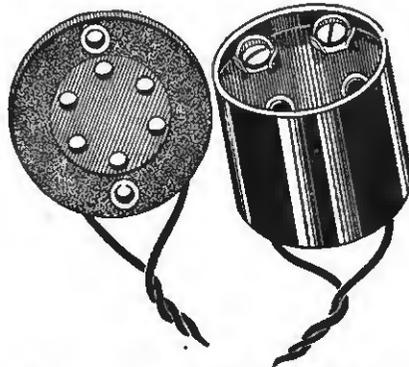


**PHILCO 050** Tube tester designed to test all latest tubes including XXL and XXXD. The selector system will take care of the rearrangement of tube base connections. Additional sockets to accommodate new types of bases can be inserted in the panel by removing spring caps in extra socket holes. Dealer net price \$34.50. Philco Radio & Telev. Corp., Philadelphia, Pa.

**S-W INDUCTOR** Phonograph adapters with switch, packed in individual shelf cartons. Molded bakelite base with snap action switch, complete with screws and mounting case. Switch suitable for mounting on front panel or any other convenient place. 18-inch shielded cable included. List price, each \$1.25. S-W Inductor Co., 1428 North Wells St., Chicago, Ill.

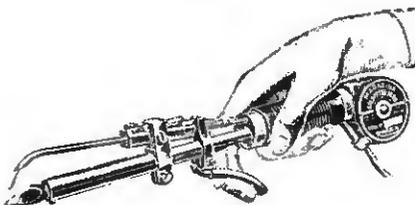


**TURNER** This company is adding to their line sealed cartons which have open terminals for testing the vibrators without removing them from the carton. These new vibrators do not depend on the springing action of the steel, but instead, employ an equal amount of magnet power to push and then pull the reed and its contacts. The Turner Co., 915 17th St., N. E., Cedar Rapids, Iowa.



**S-W INDUCTOR** Extension speaker and head-phone adapter, a dual type permitting easy hook up of either or both additional PM or magnetic speakers or headsets. Simply insert wafer disc under power tube and connect screw type-terminals, or insert head phone tips in jacks. S-W Inductor Co., 1428 North Wells St., Chicago, Ill.

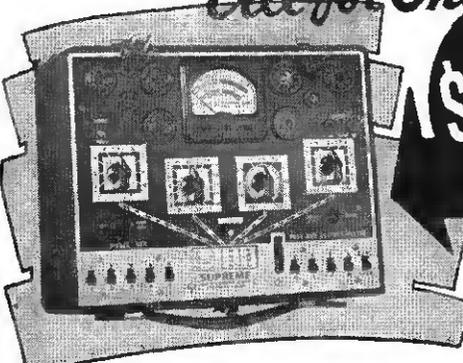
**MULTICORE** New type of solder from England. Multicore solder wire with *ersin* flux has 3 independent cores instead of the usual single core giving a 4 1/2 per cent flux ratio. Wound on 1-lb. or 7-lb. reels packed in 28-lb. net sealed cartons. Available on special reels for automatic soldering machine. Multicore Solders Ltd., Head office, Bush House, London, W.C. 2, England.



**RUNBAKEN** Automatic soldering iron operates with the solder and iron in one hand. The design of the automatic feed, spool holder, and the iron itself, makes it light and convenient to handle. Solder is fed by fully depressing and releasing trigger. 1/16 to 3/32 of an inch of solder is fed at one time. Where greater amount required depress 2 or 3 times. By placing handle downwards this acts as a stand. Runbaken Electrical Products, Burton's Bldg., 71-73 A Oxford Rd., Manchester, 1, England.

## A TUBE TESTER.. A BATTERY TESTER

*All for Only*



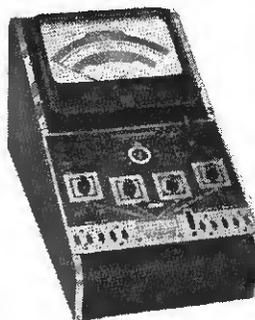
\$29.95

Terms: \$1.00 cash and 8 monthly payments of \$3.63

FREE  
TUBE SETTING  
SERVICE  
FOR ONE YEAR

**IN** producing Model 589 there has been no compromise in the circuit design or materials. The same manufacturing methods, careful inspection and accurate calibration are incorporated in this instrument as in all other SUPREME testers. It will pay you to investigate and see this tester before you buy. Its price is the lowest at which a GOOD tube tester can be built.

**MODEL 589 TUBE AND BATTERY** tester has a completely modernized circuit. The tube test sockets are not wired directly to the circuit, but, instead, pass through the patented SUPREME Double Floating Filament Return Selector system which automatically re-connects all tube elements to any possible tube base arrangement. Due to the fact that any or all elements of each socket can be rotated to any desired position, only one socket of each type is necessary. Tests every type of tube from 1.4 volts to full line voltage at its correct anode potential under proper load. Tests separate sections in multi-purpose tubes. Checks all leakages, shorts, open elements and filament continuity with a neon lamp. A circuit insert is provided for checking noise, leakage, loose and bad connections. The battery testing circuit of the Model 589 provides the proper load at which each battery is to operate, plainly marked on the panel, for all 1.5, 4.5, 6.0, 45 and 90 volt portable radio types. The condition of the battery is indicated on an English reading scale. This is the fastest and easiest tester to operate.



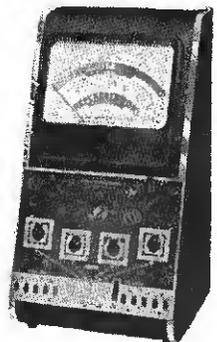
Just "follow the arrows"—you can't go wrong. Roller type tube chart with brass geared mechanism lists tubes in logical numerical order. Each tester carries a one year free tube setting service. SUPREME engineering and construction PLUS the best materials the market affords, make the 589 your biggest dollar value. You will be proud to own this instrument.

**MODEL 589 TUBE AND SET TESTER** is very similar in appearance to the Model 589, and includes all the features and advantages of this instrument. In addition, it provides the following ranges:

- 0.2 TO 1500 D.C. VOLTS—5 carefully selected ranges—0/6/15/150/600/1500 volts. 1000 ohms per volt STANDARD sensitivity.
- 0.2 TO 600 A.C. VOLTS—4 A.C. ranges—0/6/15/150/600 volts. Rectifier guaranteed with instrument and fully protected from overload damages.
- 0.2 M.A. TO 600 M.A.—3 direct current ranges 0/6/60/600 allow measurement of screen, plate, "B" supply and D.C. filament loads.
- 0.2 TO 600 OUTPUT VOLTS—0/6/15/150/600—ideal for alignment. No button to hold down—no external condenser necessary.
- 0.1 OHM TO 20 MEGOHMS—4 ranges 0/200/20,000 ohms, 0/2/20 megohms. A low range at high current with 3.5 ohms center scale.

**ELECTROSTATIC—ELECTROLYTIC LEAKAGE TEST**—Sensitive calibrated 20 megohm range provides excellent leakage test of paper and electrolytic condensers. Just as the 589 is your best value in a tube and battery tester, the 589 is your best value in a combination tube tester, battery tester and set tester. Remember, you have all the features of the 589 PLUS a complete A.C. DC volt, ohm, megohm, milliammeter, at a cost of only 47c per range. Dealer Net Cash Price \$39.50

Terms: \$4.50 cash; 9 payments of \$4.33.



Illustrated above is the Model 589 in a counter type metal case. This model is available with option of 7" or 9" illuminated meters. Has two neon lamps for sensitive or super-sensitive tests. Write for prices and information.

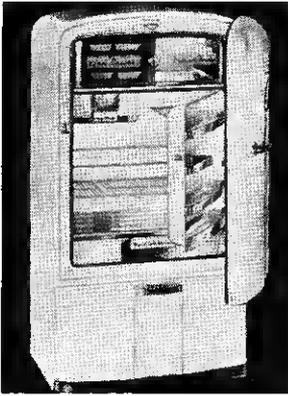
# SUPREME

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

New Catalog Just Off Press.  
Write for your copy Today!

Metal cabinets as illustrated for the Model 589 at left and 589 above are identical—can be used either in a horizontal position or vertical position by merely reversing the instrument panel. Write for prices and information.

# New REFRIGERATORS



**PHILCO** Model MAH-9, new 9 cu.ft. refrigerator with the Conservador, shelf-lined inner door, features compartments for ice cubes, frozen foods, and meat storage; full width porcelain sliding crisper drawer; automatic defrosting signal; adjustable sliding shelf with center lift-out section; non-refrigerated, divided reserve storage bin. There are 8 new boxes in the 1941 refrigerator line. Philco Radio & Tele. Corp., Philadelphia, Pa.

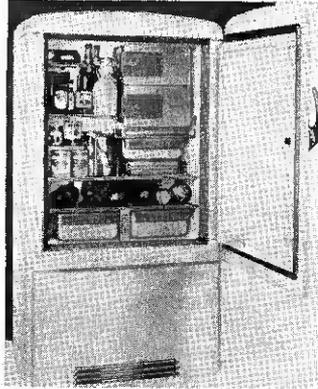


**WESTINGHOUSE** This company introduces color in the interior of the new 1941 refrigerators, named for early notable American women. The Dolly Madison features tan and brown; the Betsy Ross colonial blue; and the Martha Washington (illustrated above) crystal. This 7 cu.ft. model has a meat storage compartment and a full width Humidrawer for fruit and vegetables. List price \$199.95. Westinghouse Elec. & Mfg. Co., Mansfield, Ohio.

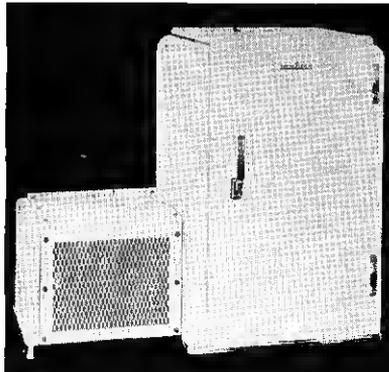


**KELVINATOR** This refrigerator features the "Polar Light," located behind the freezer door—out of the way—which not only lights the food compartment but also the ice trays and frozen storage space. It has a large chilling tray located under the evaporator with a capacity of 5 qts. Contains many shelves, closely spaced but easily removable for large articles. The 1941 line consists of 8 models, including six 6½ cu.ft. models and two 8½ cu.ft. models. Kelvinator Div., Nash-Kelvinator Corp., Detroit, Mich.

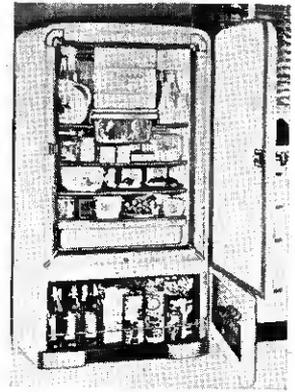
**GALE** Model GS 658, Supreme 6, features twin freezers which provide space for both ice cubes and frozen foods; extra capacity sliding meat drawer; sliding dairy basket; twin vegetable fresheners; thermometer; tilt vegetable bin. Gale Products, Galesburg, Illinois.



**G-E** Sixteen new electric refrigerators comprise the complete line for 1941. Model BY-4, illustrated, has a net cabinet volume of four cu.ft. and a shelf area of 9.5 sq.ft. It stands slightly higher than 36 inches, but its cabinet is entirely usable for storage since the sealed-in mechanism is located adjacent to the cabinet in its own enclosure. General Electric Co., 1285 Boston Ave., Bridgeport, Conn.



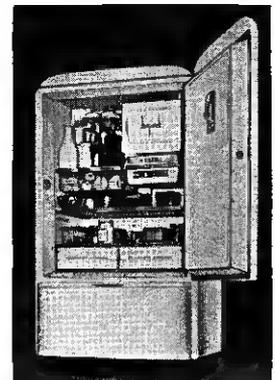
**STEWART-WARNER** Specially designed Space Maker shelves permit maximum flexibility because the freezing locker is located toward the bottom of the refrigerator, thus making room for four full width shelves. The sliding vegetable drawer can retain its cover for more shelf area or can be removed to store larger quantities of fruits and vegetables. Stewart-Warner Corp., Chicago, Ill.



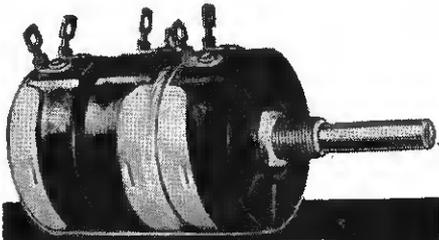
**NORGE** The 1941 line consists of five 9 ft. models, including a special farm model; four "66 Series" models with 6.6 cu.ft. capacity; and three 6 ft. models of about 6¼ cu.ft. capacity. A new feature is automatic defrosting, the *Night-Watch*, which in addition to defrosting tells time. Contains a sliding coldpack meat drawer and *Hydrovoir* full width vegetable drawer. Also flexible shelf arrangement. Norge Div., Borg-Warner Corp., Detroit, Mich.



**CROSLLEY** Model SE641, Master "6," with the Shelvador which has five extra shelves in the door, contains a *freezocold* compartment for ice cubes and frozen storage; cold storage tray for meats; vegetable drawer, and vegetable bin. The Crosley Corp., 3401 Colerain Ave., Cincinnati, Ohio.



**HOT POINT** This 8 cu.ft. deluxe refrigerator features a utility basket, hung just below the cold storage zone, for storing eggs self-protected fruit, etc. Shelves are adjustable in height and have safety bars at the front to prevent tipping of containers, and lock-stops at the back to prevent accidental pulling out. Edison General Electric Appliance Co., Inc., 5600 W. Taylor St., Chicago, Illinois.



# P - A Controls

- ★ Of course the real money today is in sound systems—anything from P-A and theatre installations, yes and even local broadcasters, down to high-fidelity amplifiers required for proper FM reception.
- ★ In this regard, don't overlook Clarostat sound-system controls. The wire-wound T-pad constant-impedance Series CIT-58 control, shown above, is typical. Also L-pads, mixers, constant-impedance output attenuators, etc. All part of the Clarostat complete line of controls and resistors.
- ★ Interested? Then ask our local jobber for literature on sound-system controls. Or write direct to Dept. RR-1, Clarostat Mfg. Co., Inc., 285-7 N. 6th St., Brooklyn, N. Y.



as the  
scotchman  
said



when he collected on a 100 to 1 horse race. "How long has this been going on?" We know you'll feel the same way when you get your copy of Radio City Products FREE CATALOG OF QUALITY TEST EQUIPMENT, and see the amazingly low prices on dependable test instruments described and illustrated in this catalog—tube testers—set analyzers—multitesters—signal generators. Meters have the new high-voltage scales too, for television servicing.

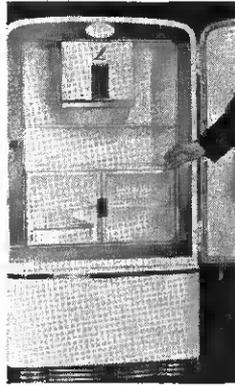
You can't afford to be without the RCP Test Equipment Catalog No. 124. Listing typical values in rest instruments as low as \$5.95 and complete tube and set testers for only \$27.95! WRITE TODAY!



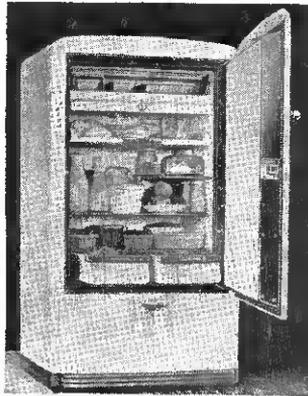
RCP  
dependable  
TEST  
instruments

**RADIO CITY**  
PRODUCTS COMPANY, INC.

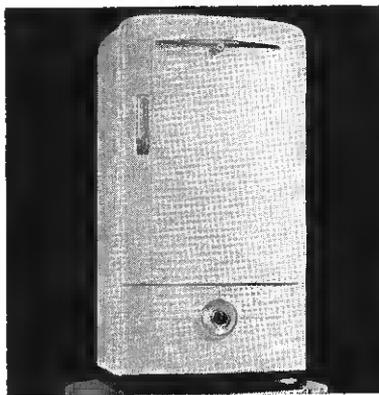
88 PARK PLACE • NEW YORK, N. Y.



**LEONARD** The new line of 1941 refrigerator models consists of five 6¾ cu.ft. cabinets and two 8¾ cu.ft. cabinets. Two of these models (LH-6 and LH-8) feature the glass-enclosed "Hi Humid Freshener" which has two swinging, metal-trimmed glass doors. Another feature of these models is the glass shelves. Leonard Div., of Nash-Kelvinator Corp., 14260 Plymouth Rd., Detroit, Mich.



**GIBSON** Model F-6721 refrigerator, 6.73 cu.ft. capacity, features large frozen storage compartment; a chill-drawer to keep meats, salads, etc.; gliding shelves to bring articles to the front; twin porcelain vegetable fresheners and non-refrigerated fill-bin for packaged, canned, or bottled foods. List price \$137.95. Gibson Electric Refrigerator Corp., Greenville, Michigan.

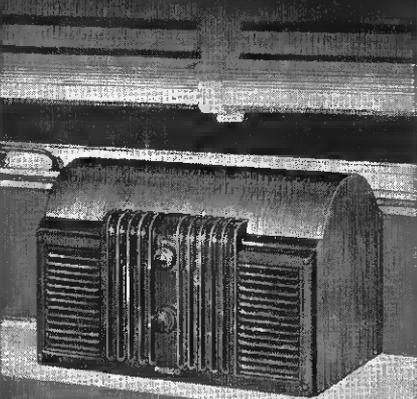


**FRIGIDAIRE** Model M-6 is one of four of the different 1941 styles. Horizontal fluting on the door and storage bin is the principal feature. Attractive knob used with the storage bin is finished in chromium. Frigidaire Div., Gen'l Motors Sales Corp., Dayton, O.

**EAGLE** Bakelite bed fluralamp incorporating fluorescent lighting. Equipped with a baked white enamel reflector for light intensity. For use with T8 15 watt 18-inch fluorescent bulb. Measures 18 x 4 x 2¼ inches. Available in grained walnut, list price \$5.55 (less bulb); and in ivory, \$6.10 (less bulb). Eagle Electric Mfg. Co., Inc., Brooklyn, N. Y.

# New PHILCO ROOM VENTILATOR

only \$39<sup>50</sup>\*  
LIST PRICE



Opens Up Big  
All-Year-'Round  
Business for You!

Now, for the first time, a ROOM VENTILATOR at a price so amazingly low it will sell like hot-cakes. An entirely new engineering development that gives it all of the efficiency of units costing almost twice as much!

- Brings in Fresh, Clean, Filtered Air ... 475 Cubic Feet Per Minute.
- Shuts out Noise, Dirt, Dust.
- Exhausts Stale, Stuffy Room Air ... 110 Cubic Feet Per Minute.
- Recirculates Room Air ... 185 Cubic Feet Per Minute.

A tremendous year 'round market is opened for you! Every office, home, apartment is a prospect ... large volume, steady profits! Easy-to-handle package merchandise! No Saturation! No Trade-in Allowances! Installation is quick, easy ... a thirty-minute, one-man job. Get ready to cash-in! Mail the coupon today for full information.

\*Price Slightly Higher Denver and West

Philco Radio and Television Corporation  
Dept. No. 543, Philadelphia, Pa.

Please send me full details of your dealer franchise proposition on the new Philco Room Ventilator, together with Discounts and your Special Wholesale Credit Terms and descriptive literature.

Name \_\_\_\_\_

Street \_\_\_\_\_

County \_\_\_\_\_

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

## SOUND Ideas

**BETWEEN CHUKKERS**—Sound plays a big part in polo games at Fort Hamilton, N. Y. System uses Atlas trumpet and parabolic type speakers. Between chukkers crowd is entertained by popular recordings



**HEADS SYLVANIA OPERATIONS**  
—*Walter E. Poor*, advanced by Hygrade Sylvania board of directors to post of executive vice-president in charge of all operations. He will make his headquarters at the New York office, 500 Fifth Avenue

### RMA Launches Ad. Survey

Initial steps taken toward establishing correct advertising standards and practices

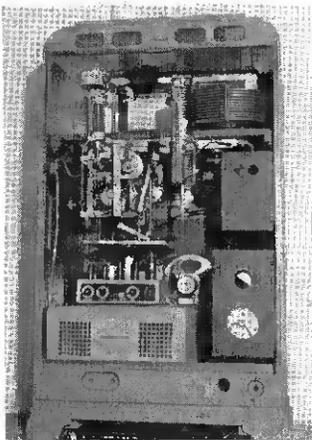
WASHINGTON — The RMA has launched its plan to survey industry advertising on a voluntary cooperative basis. Initial steps toward establishment of desirable and technically correct advertising standards and practices were taken up at the first meeting of the new RMA Committee on Advertising on December 11 at the Hotel Roosevelt in New York City. Current industry advertising was surveyed and procedure begun to have the RMA recommend voluntary advertising standards.

The inaugural meeting of the Committee on Advertising was presided over by its chairman, John S. Garceau of Fort Wayne. All committee members, comprising advertising and sales promotion managers of several major companies, were present, together with Chairman Paul V. Galvin of the RMA Set Division, under whose auspices the advertising group functions, and Dr. W. R. G. Baker of the RMA Engineering Department. Technical information, to insure correct advertising, is being furnished by the Engineering Department to the Advertising Committee.

General advertising problems, as well as specific current advertisements, were reviewed by the RMA committee. Among general subjects considered was the cooperative advertising of manufacturers with their distributors and dealers, and the RMA committee called special attention to the policies and opinions of the Federal Trade Commission placing a share of responsibility upon manufacturers for statements made in the

**MIKE LOOKS AT KING**—In spite of distance from microphone H.R.H. Christian, King of Denmark, had no difficulty in reaching listeners, via powerful p.a. system, on the occasion of his seventieth birthday. A directional Western Electric microphone closed the gap, simulated a close-talking type for the event

**MODERN BUGLE CALL**—Problem of "who calls the bugler" is eliminated at San Francisco U. S. Army post with its new sound system for automatic reproduction of bugle calls. Pictured here is control cabinet housing 100 watt Bogen amplifier and special record mechanism. Four trumpet speakers mounted atop of barracks project calls over an area of 4 miles



# On the Newsfront

cooperative advertisements of their distributors and dealers.

In addition to Chairman Garceau, the Committee includes Clifford C. Dewees, Chicago; P. G. Gillig, New York; P. F. Hadlock, Bridgeport, Conn.; Victor A. Irvine, Chicago; Thomas F. Joyce, Camden, N. J.; Martin L. Krautter, Cincinnati, Ohio; Lee McCanne, Rochester, N. Y., and Sayre M. Ramsdell, Philadelphia, Pa.

## RMA Holds Mid-Winter Meeting

Membership rally at Chicago Jan. 15. Review problems and plan projects for 1941.

CHICAGO—The entire RMA membership gathered at the Stevens Hotel, Chicago on January 15 for a general survey of industry problems and projects.

President J. S. Knowlson and the Executive Committee have planned that this mid-winter RMA session hereafter be an annual event for the Association's membership. This meeting is to take place between the regular June Trade Shows.

A special program was arranged and addresses were made by President Knowlson, Chairman Baker of the National Television System Committee and others.

Many group meetings were held which included the Export Committee of which Walter A. Coogan is chairman and to which all RMA export managers had been invited. Meetings were also arranged for the parts, accessories and other committees and included the special Parts Warranty Committee, of which Director Ben Abrams is chairman.

## Pioneer Gen-E-Motor Expands

CHICAGO—D. E. Bright, president of the Pioneer Gen-E-Motor Corp. announces the purchase of the former Grigsby-Grunow No. 2 building situated at 5841 West Dickens Ave., Chicago, so as to take care of the increased demand for its products. The new plant, the second addition in 18 months will comprise a total of 80,000 square feet.

## Sales Mgrs Club Elects Officers

NEW YORK—The following officers of the Sales Managers Club (Eastern Group) were recently elected for the forthcoming year: Dan Fairbanks, of International Resistance Co., chairman; W. F. Osler, Jr., Cornish Wire Co., vice chairman; and W. W. Jablon, Hammerlund Mfg. Co., secretary.

## New NRPDA Policies

Pass 6 important resolutions affecting national problems

NEW YORK—By resolutions passed at sectional meetings the National Radio Parts Distributors Ass'n went on record to the effect that:—

A. That a jobbing discount of 60-10 with suggested resale of 40% is essential to the parts distributor to cover expenses and leave a small net profit.

B. That a lowering of list prices on standard brands would prove very detrimental because an increase in unit sales, if any, could not make up for the loss in dollar volume or dollar gross profit.

C. That instead manufacturers should improve the quality of jobbing parts and give merchandising help such as meetings for dealers and servicemen addressed by their technical factory representatives.

D. That the great differential in prices between manufacturer and jobber permits the manufacturer to upset standard resale policies. Jobbers do not want lower prices but feel that set manufacturers entering the jobbing field should maintain recognized jobbing lists and discounts. Parts manufacturers are urged to help accomplish this for otherwise the entire parts distributor picture will soon be undermined. The business of the parts distributor is entirely dependent on recognition of this factor. They do not have any other means of making a profit.

E. That we recognize that manufacturers costs have gone up but so have the jobbers. If such wide differentials are not justified between jobbing and manufacturer prices then certainly the jobber should not be further penalized by elimination of cash discounts, shorter discounts, and excise taxes. If these can be justified the jobber prefers the list price be raised to take care of them. The parts jobber can not absorb these extra costs.

F. That a cash discount is solely given as an incentive to pay bills within the stipulated pe-



**HARRY J. DEINES**—Just appointed manager of advertising and sales promotion for General Electric's radio and television department

riod. A cash discount is only fair to those concerns who so run their business that they are able to take it. A cash discount helps create a better credit picture. The good jobber should not be penalized for the poor one.

## Zenith Announces Staff Changes

CHICAGO—E. A. Tracey, formerly vice president in charge of sales, and J. H. Rasmussen, formerly assistant sales manager, are no longer connected with Zenith Radio Corporation according to recent statement issued by that company.

Commander E. F. McDonald, Jr. president of Zenith, announces the promotion appointment of Edgar G. Herrmann as acting sales manager, who will carry on the duties of this office as well as those of his present post, of advertising manager, until further notice.



**WITH HERB CLOUGH'S ARRIVAL**—The Board of Directors of the Radio Parts Manufacturers National Trade Show, Inc. got down to business and began preparing plans for the 1941 shindig to be held at the Stevens Hotel, Chicago June 10 to 13. Left to right: H. E. Osmun, vice-president; H. W. Clough, new director; Ken Hathaway, managing director; K. C. Prince, legal counsel; A. A. Berard, president; and seated, J. J. Kahn, secretary-treasurer



**THE WINNER**—*Alfred P. Levin* of the Royal Radio Co., Hoboken, receiving first award of \$500 from *Sam Gross*, president of Emerson-New Jersey, Inc. Spreading smiles for the occasion is *Bernard Friedman* (center) of the Emerson-N. J. sales staff

## Emerson Awards For Estimates Of Sept. Sales

Competition designed to inform dealers of actual public buying trends

NEW YORK—A specially appointed committee of judges (from the industry) just made fifty cash awards amounting to \$1500.00, to radio dealers throughout the country who sent in to the Emerson Radio and Phonograph Corporation the best average estimates of the numbers of the various types of sets which were sold during the single month of September. Prizes were awarded on the basis of sales and shipment figures of manufacturers.

The first cash award of \$500.00 was won by Royal Radio Co., of 734 Washington St., Hoboken, N. J.

The second award of \$250.00 was won by Gabe's Radio and Appliance Co., of 113 E. Walnut St., Green Bay, Wisconsin.

The third award of \$100.00 was won by Radio Doctors of 213 W. Wells St., Milwaukee, Wisconsin.

The remaining forty-seven awards went to as many dealers in different sections of the U. S.

"The purpose of this contest," said Charles Robbins, general sales manager of Emerson, "was chiefly to get across to the dealer the relative merchandising importance of the various types of sets. While providing the dealer with 'sell-up' models and 'sell-up' promotion, Emerson has always been an advocate of realism in merchandising—and this has always worked to the practical advantage of our distributors and dealers. Results of this contest have been sent to the winners and to distributors, and the latter will follow up with constructive dealer suggestions for capitalizing public buying trends."

## Emerson Moves Million

NEW YORK—In his annual message to distributors, mailed January 9, president Ben Abrams of Emerson Radio and Phonograph Corporation states that all-time highs were reached during 1940 in terms of both units sold and dollar volume. Emerson, wrote Abrams, broke earlier company records by shipping over a million radios.

Commenting on his message, Abrams said that he expects to see a rising market for most types of receivers as the new year advances, with demand for table models, portables and combinations in even greater proportion than during 1940. "While replacement will doubtless account for the majority of sales," he continued, "the increased income of millions of people and the re-employment of additional millions this year will lead to the purchase of more 'extra' sets than ever before."

## New Farnsworth Appointments

FORT WAYNE—R. C. Jenkins, factory superintendent of the Farnsworth Television & Radio Corporation, announces the appointment of J. C. Buzelli as manufacturing division manager

and the elevation of A. J. (Art) Lange, factory superintendent, to the post of coordinator of operations between Fort Wayne and Marion plants.

## Turner Now Licensed For Vibrators

CEDAR RAPIDS—The Turner Company states that it is now licensed to manufacture vibrators for car and other portable radios under James patents No. 1,940,496 and No. 2,113,726 and other patents pending. Announcement states that they were in production and ready to make delivery Jan. 1, 1941.

## Belmont Housewarming

CHICAGO—On December 21 Belmont Radio Corp. held a housewarming at its new offices and modern plant, 5921 Dickens Street. The aggregate floor space totals 200,000 square feet of which 16,000 sq.ft. is devoted to offices and laboratories. In addition to this, 120,000 sq.ft. are available for anticipated plant expansion.

Belmont radio executives announce they will be ready to introduce a new Belmont line of receivers in about 30 days.

## Crosley Shows New Appliance Lines at National Convention



**OPENING GUN**—Was fired by general manager *Ray Cosgrove*, (top left) who officially opened the show on Dec. 2nd. (top right) *R. I. Petrie*, vice president and g.s.m. addressed the distributors on '41 sales and promotion plans. (bottom left) *Jack Crossin*, manager of refrigerator sales, unfolded plans for the new Super-Shelvador boxes. And (bottom right) *Bernice Baxton*, model for "Food To The Front" promotion piece, smiles in person to *L. Martin Krautter*, advertising manager



AT HOTPOINT'S PREVIEW—F. B. Williams, Hotpoint's refrigeration manager, presents the new '41 boxes and summarizes their features

## Hotpoint Presents New Lines

Holds 6 meetings. Announce promotion and sales plans

CHICAGO—R. W. Turnbull, Hotpoint, Edison General Electric Appliance Co., Inc., Vice-President, and a group of key executives were the star performers at a series of six distributor meetings where Hotpoint's 1941 products and plans were presented for the first time. The slogan back of 1941 plans is "Your Place in the Sun in '41 with Hotpoint." Each of the dramatized presentations by the various Hotpoint division managers was keyed to this theme.

Climaxing the day's program at each meeting was the new Hotpoint sound motion picture "And the Pursuit of Happiness." This is an entertaining institutional film which will be used throughout the year by Hotpoint retailers, along with the popular Hotpoint feature picture, "Blame It On Love." Its educational value will make it useful for schools, colleges, and clubs, as well.

Accompanying Mr. Turnbull on this series of meetings were: G. H. Smith, merchandising manager; W. A. Grove, advertising and sales promotion manager; Clinton Brown, campaign manager and others.

## Now Philips Export

NEW YORK—The announcement has been made that the business of the Philips Technical Products, at Hotel Roosevelt, New York City will henceforth be conducted by Philips Export Corporation of the same address. The officers of this company are: P. van den Berg, president; A. Vernes, vice president and secretary and T. Naber, vice president and treasurer.

## RCA Issues New

### 480 Page Service Volume

CAMDEN—The largest and most complete bound volume of service notes ever issued by RCA Victor, covering all 1939 radio and radio-phonograph instruments and a number of 1940 models has just

been made available for dealers and servicemen. It is a 480-page book and includes over 500 illustrations. This is the eleventh in a series dating back to 1923.

The volume also includes television service notes on the latest type receivers. In addition there is a 48-page new edition of the RCA Rider Chanalyst instruction book.

## Retailers' Operating Survey

NEW YORK—The following information (important data for retailers) was extracted with permission from the "1940 Retailers' Operating Cost Survey" as prepared by the Research and Statistical Division, of Dun and Bradstreet, Inc., New York City.

It is entitled "Typical Operating and Merchandising Ratios for 1939" and the figures are confined to the analysis of 30 reporting dealers who both sell and service radios. The aggregate net sales of reporting concerns totaled \$437,600.00.

All Concerns	
PROFIT AND LOSS STATEMENT: (in percentages of Net Sales)	
1. Net Sales	100.0
2. Cost of Goods Sold	55.5
3. Total Expense	42.1
a. Salaries, Owners and Officers	19.8
b. Wages, All Other Employees	10.0
c. Occupancy Expense	5.1
(93% of concerns renting)	
d. Advertising	2.4
e. Bad Debt Losses	0.8
f. All other Expense	4.0
4. Profit or Loss (L) Loss	2.4
MERCHANDISE RATIOS:	
5. Gross Margin (% of Sales)	44.5
6. Realized Mark-Up (% of Cost)	80.3
7. Inventory Turnover (Times per Year)	3.9

## Freed Appoints 5 Reps

NEW YORK—Joseph D. R. Freed, president of the Freed Radio Corp., announces the appointments of the following five sales representatives.

George W. Axmacher to handle the territory of lower Manhattan (below 59th St.) and Brooklyn. Robert C. Roggen for upper Manhattan, the Bronx, lower Westchester and Queens. J. E. McKinley will have the Philadelphia, southern New Jersey and Washington, D. C. areas. Chicago and Milwaukee will be in the hands of Royal A. Stemm, with John O. Olsen selling Cleveland.

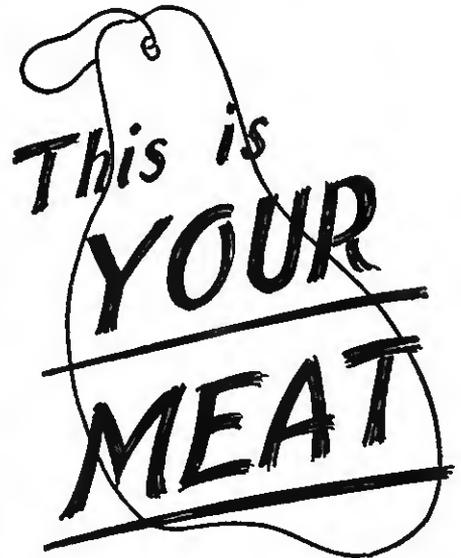
Further announcements to be made from time to time of appointments in all territories where FM stations are now broadcasting, stated President Freed.

## Roye Represents Bud

NEW YORK—Roye Sales Agency, 11 Warren St., New York City is the new metropolitan sales representative for the Bud Radio, Inc. of Cleveland, Ohio. They will stock a complete line of Bud products for the convenience of their jobbers.

## Ansley Names S.M.

NEW YORK—The Ansley Radio Corp. New York City, recently named John J. Wood as its sales manager. Wood was formerly connected with the retail end of the business in New Orleans.



and it isn't  
**BALONEY!**

SERVICEMEN and DEALERS everywhere will be called upon immediately to supply a large demand for F-M conversion units! Commercial F-M is now a reality and public attention is being attracted to this new system of true high-fidelity, noiseless reception. YOUR sales AND profits are due for a tremendous boost IF you take immediate advantage of the present opportunity to cash in on early demands for high quality, inexpensive adapters for present radio receivers, such as

## the New Meissner



## F-M RECEPTOR

This unit is a complete, self-powered, 8-tube converter, designed to add F-M reception to any regular receiver—feeds directly into the input of the audio system. Power output and tone quality are limited only by the capabilities of the audio equipment in the regular receiver! RF stage provides maximum reception range and noise rejection. In attractive walnut cabinet, the Receptor is only 13" wide, 7" high and 6 3/4" deep! Available without cabinet, if desired. Write for details and prices at once!

Write Today for Free General Catalog

Address Dept. R-1





**SONORA'S S. M.—Ed. Harris** newly appointed sales manager for Sonora Radio & Television Corp. He is one of the oldtimers, with 15 years of radio experience

## Philco Shows 1941 Refrigerators

Distributors preview new models

CHICAGO—at the mid-winter convention of Philco Corp., held at Edgewater Beach Hotel, 800 Philco distributors, plant executives, and field representatives were present for the three day meeting (Jan. 6-7-8) and introduction of the 1941 line of Philco refrigerators. Simultaneously shown was a new window ventilator of unique design.

Opening the convention on Jan. 6, T. A. Kennally, general sales manager, reported that Philco had shipped over 2,000,000 radios in 1940. He then introduced James T. Buckley, president of Philco, who welcomed the visitors and stated: "Peace-time industry should continue to produce as large a volume of goods and services as possible without actually interfering with the manufacture of war materials."

Following Buckley, Larry E. Gubb, vice president, and W. Paul Jones, chief engineer, unveiled and described in detail the complete 1941 line of refrigerators, ranging in price from \$114.75 to \$259.95.

Sayre M. Ramsdell, director of public relations, outlined advertising plans, which included a new broadcasting program featuring war correspondent Frazier Hunt, to be heard on 108 stations. Ramsdell was followed on the program by J. H. Carmine, assistant general sales manager.

Speakers on Tuesday, Jan. 7, included Hon. Phillip La Follette, Robert Herr, Henry Paiste, C. E. Carpenter and Harry Boyd Brown.

Shipment of several of the new refrigerator models, it was announced, was proceeding during the convention.

## Smithsonian to Display

### Philco's P.E. Pick-up

PHILADELPHIA — According to a recent announcement the Smithsonian Institution of Washington, D. C. will permanently display Philco's new photoelectric phonograph pick-up in its Arts

and Industries Building.

On behalf of the Philco Corp., Senator James J. Davis of Pennsylvania made the presentation of the instrument to Dr. Alexander Wetmore, assistant secretary of the Institution and to Carl W. Mitman, head curator.

## Simplex Announces New Set-Up

PHILADELPHIA — The assets and business of Simplex Radio Company have been transferred to a successor company of substantially the same name, Simplex Radio Corporation. The latter will continue to operate as a radio manufacturing organization in Sandusky, Ohio, as in the past.

At the initial meeting of the Board of directors the following officers were elected: James T. Buckley, president; Larry E. Gubb, executive vice president; George E. Deming, vice president in charge of production; William H. Grimditch, vice president in charge of engineering; John Ballantyne, treasurer; Edward S. Peyton, secretary and William R. Wilson, controller.

In excess of 90% of the stock of Simplex Radio Company was owned by Philco Corporation, which will own 100% of the stock of the new corporation.

## American Television Moves

NEW YORK—The American Television Corp. formerly located at 130 West 56th St., New York City, recently moved its offices and laboratories to new quarters at 333 West 52nd Street, NYC.

## Universal Advances Shapiro

NEW YORK—Harry L. Shapiro is the new general sales manager of Universal Camera Corporation. Was divisional

sales manager in charge of the Chicago office.

## CBS Extends Network To Latin America

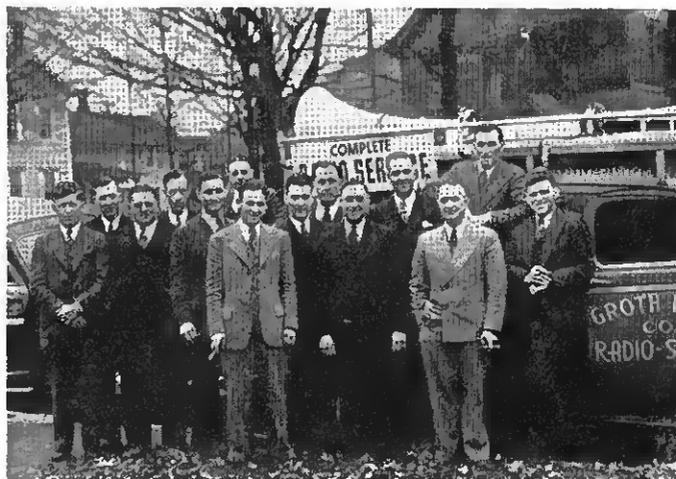
NEW YORK—William S. Paley, president of Columbia Broadcasting System, returning from a 7-week tour of Latin America, announced the extension of the CBS network to 18 of the 20 Latin American republics. Haiti and Honduras being the only countries not yet covered. Negotiations are now under way to include them.

The trip was undertaken by Paley to determine what Columbia could do to further this nation's good neighbor policy with South and Central America. Investigation demonstrated that short-waving North American programs to these republics was not enough. For this reason Paley contracted with important and efficient long-wave outlets in every one of the 18 countries which will carry regular day-by-day broadcasts of specially-built CBS programs. The new network is to begin operation on or about September 1, 1941. Network already consists of 39 long-wave and 25 short-wave stations.

President Paley has also arranged to broadcast over CBS in this country, programs originating in all the Latin America countries.

## RTA Elects New Officers

LONG BEACH—The Radio Technician's Association of Long Beach, California at its annual election of officers installed H. E. Ward, Jr. as president for a third term, Walt Rundquist as treasurer and vice-president and Boy Hayden as the new secretary.



**JOBBER TOURS SYLVANIA PLANT**—Pictured here is the entire sales staff of Masline Radio Parts, Rochester, N. Y. (Sylvania tube distributor) at Emporium, Pa., where they were guests of Hygrade Sylvania Corp. Tour was made under the direction of R. S. Merkle, Sylvania's Commercial engineer. Members of Masline staff and Sylvania officials from left to right are: Charles Ely, Walter Harrison, Ray Strickland, Carlton Jones, George Kujawa, H. G. Kronenwetter, Elliot Russo, Glen Burfield, R. P. Almy, Burt Lewis, Horace Chapman, Virgil Latour, Ed Masline and Archie Groth



**FRANK R. KOHNSTAMM**—Sales manager for Westinghouse Electric & Mfg. Company's Merchandising division, announces new labeling program at preview of 1941 lines

### Westinghouse Presents New Appliance Lines

NEW YORK—An informative labeling program designed "to provide consumers with the information they want to know about electrical appliances" was announced today by the Westinghouse Electric & Manufacturing Company's Merchandising Division. The new labels appeared on the products shown by the company at a preview of its 1941 lines of refrigerators, ranges, and other appliances.

"A study of the new labels will show," sales manager Kohnstamm said, "that we have made every effort to incorporate in them the following information about a product: what it is made of, how it is made, and how it should perform."

"We have dispensed entirely with general selling terms about the products. Instead, in the "What it is made of" section of the refrigerator label, for example, we list complete specifications such as exact food storage capacity, shelf area, and ice capacity, the exact types of finishes used, the dimensions, a precise description of the accessories contained in the various models."

Distinctive features of the 1941 Westinghouse refrigerator line are the introduction of color in the interiors and styling in a colonial theme. Variety of color combinations is obtained by use of plastic panels in soft pastel shades.

Introduced publicly for the first time were two new developments—the "Laundromat," the Westinghouse automatic cycle washer, and a reverse cycle air conditioner which provides cool air in summer or warm air in winter.

### Asp Joins Columbia

NEW YORK—Patrick Dolan, Columbia Recording Corp. promotion director announces that Sidney Asp has been appointed production manager of the sales promotion department. Asp was formerly with the George Bijur advertising agency of New York.

### Frigidaire Ups

#### Thomas and Bradford

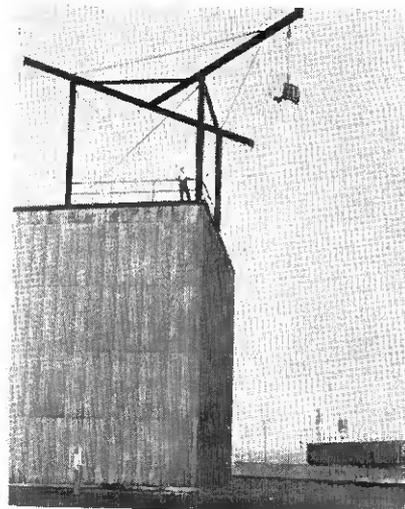
DAYTON—Two additions have been made to the dealer development staff of Frigidaire Division, General Motors Sales Corp. according to L. C. Truesdell, manager of this department.

A. R. Thomas, one of the new members of the staff, will cover New England and the eastern area. For several years Thomas has been assigned to merchandising activities in Frigidaire's New England district.

R. S. Bradford, formerly district representative and most recently as sales manager in the Columbus, Ohio, area will cover the central area of the United States. Continuing in their present capacities R. B. Trick will contact stores in the western portion of the country, while R. E. Krumm will cover the southern area.

### Hempstead RSA Meeting

NEW YORK—The Hempstead, Long Island chapter Radio Servicemen's Association at their December meeting, had the pleasure of hearing a report by George C. Connor, Hygrade Sylvania's commercial engineer, on the "Changes in radio and their ramifications to the serviceman." The meeting was sponsored by the Dale Radio Corp., New York Sylvania distributor. Otto Furman presided over the meeting.



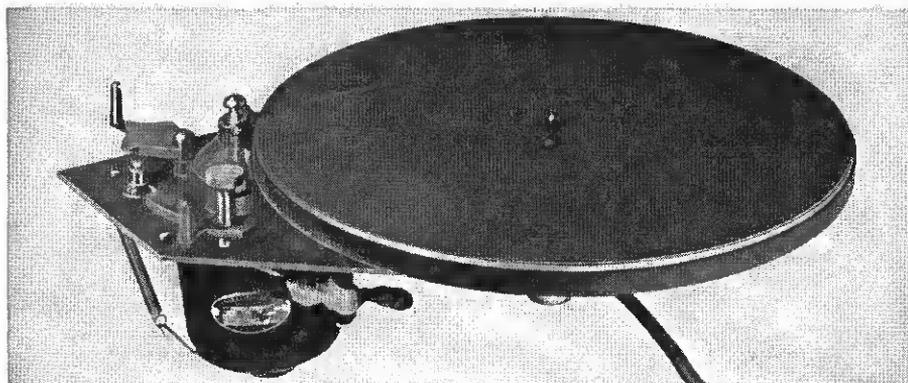
**JENSEN'S SOUNDROOM**—Hugh S. Knowles, Jensen Radio Mfg. Company's v.p. and chief engineer, says this new huge "free-space" soundroom will permit more accurate loudspeaker measurements. Rigging at top is for hauling up the big units for outdoor measurements

### Moves to Larger Quarters

MINNEAPOLIS—The Standard Electrical Products Co., formerly of St. Paul, Minn., is now housed in its new and larger factory and offices at 417-1st Ave. North, Minneapolis, Minn.

## NEW PRESTO JR. TURNTABLE

At Lowest Price Ever Quoted On A Presto



● Here is the ideal turntable for portable transcription playbacks, high quality record players, sound effects reproducing equipment—in short, wherever a compact, reliable turntable is needed.

The new Presto 11-A dual speed, 12" turntable has ample power for playing 16" transcriptions, without wavers or change in pitch from outside to center. Exceptionally low vibration. Has the exclusive Presto rubber tire drive, same as that used in the higher priced recording turntables. Quick speed change, 5 seconds from 78 to 33 $\frac{1}{3}$  RPM.

Now ready for delivery at the lowest price ever quoted on a Presto turntable. Write today for descriptive bulletin.

**PRESTO RECORDING CORPORATION**  
242 West 55th Street, New York, N. Y.

World's largest manufacturers of instantaneous sound recording equipment and discs



**NORGE CONFERENCE** — *W. M. Wood* of the Automatic Sales Corp. (Houston distributor) calls at Detroit headquarters of Norge Division, Borg-Warner Corp. and is shown here with *M. G. O'Harra* (right) vice-president in charge of sales and *Paul Puffer* (left) general sales manager

### Warren-Norge to Serve Jersey

DETROIT—Appointment of the Warren-Norge Company 315 Fourth Avenue, New York, as distributors for the Norge line of household appliances in the northern New Jersey territory formerly served by the Norge Sales Company of New Jersey was recently announced by E. L. Frohlich, eastern sales manager for Norge Division Borg-Warner Corporation. Will continue to hold the distributorship for metropolitan New York which it has conducted for the past six years.

### FCC Grants 7 More FM Licenses

WASHINGTON—The FCC on December 6 licensed the following seven FM stations and extended the area of FM broadcast service over 50,000 miles and embraced more than 20,500,000 potential listeners. As of December 31, there were a total of 25 stations who have now been granted construction permits for commercial FM broadcasting.

LOCATION	STATION	Freq (mc)
Hartford	WDRG, Inc.	46.5
N. Y. City	Metropolitan Tele., Inc.	47.5
N. Y. City	Bamberger Bdcstg. Service	47.1
Chicago	National Bdcstg. Co.	46.3
Chicago	WGN, Inc.	45.9
Pittsburgh	Walker-Downing Radio Corp.	
Nashville	National L&A Ins. Co.	44.7

### Sonora Ups Hubbard

CHICAGO—Donald M. Fetterman, vice president in charge of engineering at Sonora Radio & Television Corp. has just announced the appointment of Linus O. Hubbard as chief engineer. Hubbard received his Master's degree in Electrical engineering at the University of Illinois.

### G-E Names

#### Dr. Coolidge Vice President

NEW YORK—Dr. W. D. Coolidge, famous research scientist, and Stuart M. Crocker, an executive were re-

cently appointed vice-presidents of the General Electric Company. Dr. Coolidge will continue to direct the research laboratory in Schenectady. Crocker is to relinquish his duties as manager of the air-conditioning plant in Bloomfield, N. J. and make his headquarters in the New York Office. Management of the air-conditioning department is to be added to the present duties of H. L. Andrews, v.p. in charge of the company's appliance and merchandise department.

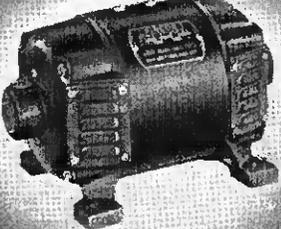
### Books on Review

*The Meter At Work* by John F. Rider, 152 pages, published by John F. Rider, Publisher, 404 Fourth Ave., New York, N. Y. Price \$1.25.

The various meters employed in radio and allied fields are analyzed in this new book. How each type works, how they are used in practise and how to get the most use are among the subjects covered.

The pages are cut across about three inches from the top and the illustrations are printed in this portion. The text to accompany these appears on the lower portion of the pages. If the descriptive matter covers several pages the illustration can be constantly kept in view for ready reference since it does not need to turn with the lower pages.

# PINCOR CONVERTERS

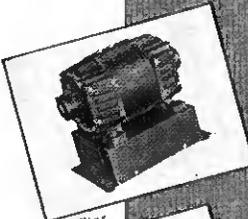


*"Satisfied"* SAY  
THOUSANDS OF  
CONVERTER USERS

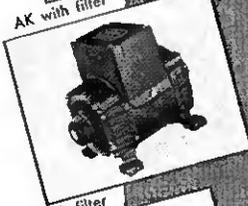
Where uninterrupted operation of such A.C. electrical equipment as gaseous signs, power amplifiers, motors, radios, musical instruments, etc. depend upon your converters, they are safe by using PinCOR Rotary Converters. They give thousands of hours of trouble-free service, even under the most adverse conditions.

Available with or without filter for converting 6, 12, 32, 115, 230 or special voltages D.C. to 110 or 220 volts A.C. 40 to 3000 KVA. Quiet, smooth, light weight and compact. Send for NEW complete catalog today.

**PIONEER GEN-E-MOTOR CORPORATION**  
DEPT. R-1, 466 WEST SUPERIOR ST., CHICAGO, ILL.  
EXPORT ADDRESS: 25 WARREN ST., N. Y., N. Y.  
CABLE: SIMONTRICE, NEW YORK



AK with filter



BK with filter



YR less filter



# KEN-RAD

## DEPENDABLE RADIO TUBES

Make 1941 a Ken-Rad year. Investigate the Ken-Rad selling story at once. You will profit by it.

**Ken-Rad Tube & Lamp Corporation**  
Owensboro, Ky.

If he sells

# RADIO

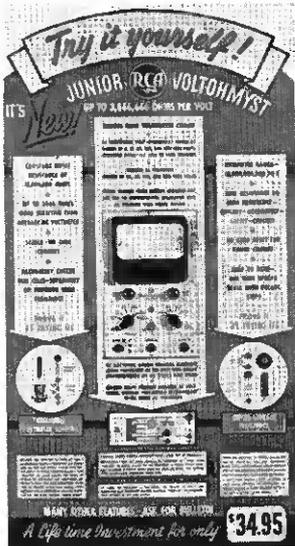
and other modern home equipment, he's the

## LIVEST DEALER IN TOWN!

And RADIO RETAILING is  
his preferred trade paper

## Dealer Helps

**INSTRUMENT DISPLAY**—New "Try it Yourself" RCA display of its Junior Voltohmyst. Printed in brilliant yellow, red, blue and black. Provides simple circuits with apparatus for actual tests.



**SALES AID**—RCA-Victor announces a new 15-page multi-colored folder of envelope stuffer size which illustrates and describes a number of new table models ideally suited for service as "extra radios in the home." Being supplied to key

dealers by means of a special arrangement for imprinting and mailing.

**NEW MANUAL**—The 1941 Sprague Manual of Radio Interference has just been issued by Sprague Products Co. of North Adams, Mass. Revised to cover important new developments including interference elimination from fluorescent lighting. Available either direct or through jobbers at a net price of 25 cents.

**FOLDER ON INTERFERENCE**—Sprague Products Company has an 8-page bulletin entitled "Radio Interference Elimination for Public Utilities" which should prove helpful to servicemen who specialize in interference elimination work. Free. Mention Radio Retailing.

**TUBE DISPLAY**—Emerson Radio and Phonograph Corp. has just released to its distributors for dealers and servicemen, an attractive card on Emerson radio tubes. Designed for either window set-up or counter. Lithographed in full colors.

**POSTER**—For Emerson distributors new poster featuring indorsement by the movie star, Gary Cooper. Ties up with national magazine advertising copy. Reproduced in full color.

**WIRE CATALOG**—Alpha Wire Corporation, 50 Howard St., New York City, offer a new catalog of stock wire

and cable items. The general purpose and definite construction of each wire and cable is included.

**LOOSE-LEAF CATALOG**—General Industries Co., Elyria, Ohio, have a new catalog on electric phonograph motors, automatic record changers and home recording units. Designed as a reference for manufacturers of phonographs and radio combinations. Copies available on request.

## Distribution News

**MOTOROLA**—Galvin Mfg. Corp. appoints Billmeyer, Inc., Fifth and Center Sts., Pocatello, Idaho a Motorola car and home radio distributor in the middle and southern part of Idaho, the state of Utah, the southern part of Wyoming and in five counties along the eastern border of Nevada.

**CLAROSTAT**—Kennedy Sales Co., 2362 University Ave., St. Paul, Minn., has been appointed representative for Clarostat Mfg. Co. Inc. of Brooklyn, N. Y. Will cover the states of Minnesota, North and South Dakota and a part of Wisconsin.

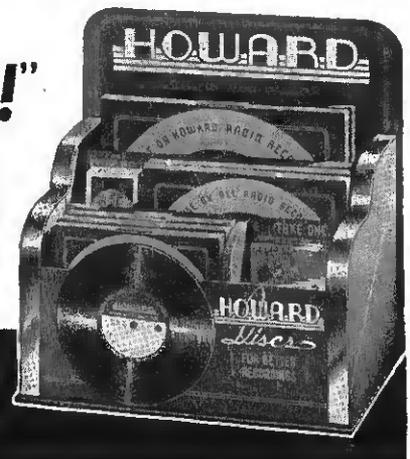
**MAYFLOWER**—Gale Products, Refrigeration Division of Outboard Marine & Manufacturing Co., announces the appointment of the Mook Electric Company of Cleveland as distributor for Mayflower refrigerators.

The Counter Display That Says—

## "Buy HOWARD Discs NOW!"

This attractive counter display was designed and built for one purpose only . . . to help dealers sell HOWARD Recording Discs in profitable volume. And it does it too! Contains 3 packages (5 each) of 10" discs; 3 packages (5 each) of 8" discs; 4 packages (5 each) of 6 1/2" discs; 6 packages each of phono and recording needles plus an ample supply of consumer sales

making literature . . . \$17.50 retail value. HOWARD Discs have proved their superiority, are fully approved by the Underwriters' Laboratories and can be used with any make of home or professional recorder. The many exclusive features of HOWARD Recording Discs mean consistent and worthwhile profits for you. Order today!



Flame Proof . . . Underwriters' Approved . . . Metal Base . . . Low Surface Noise . . .

## HOWARD RADIO COMPANY

1731-35 Belmont Av., Chicago, Ill. - Cable Address: HOWARDCO, USA

America's Oldest Radio Manufacturer

## RADIO MEN!

You've Been Asking for a Chance to Crash This Profitable New Market.

## FLUORESCENT LIGHTING!

HERE IT IS!

From our complete line of Fluorescent Lighting Fixtures, we have selected the 20 most popular styles for Home, Office, Store and Factory. These we have arranged in a special knock down sales kit containing all essential fixture parts: included are enough ballasts, sockets and tubes to assemble up to 10 complete fixtures. Parts are selected so that you may assemble any one of the 20 fixtures or up to 10 complete fixtures. Our purpose is to make available to you a complete line of fixtures for immediate resale requiring the smallest possible investment, and to deliver these at the lowest cost. Even with our low list prices, your mark up will range from 100% to 137%.

Kit Includes: 11 Deluxe fixtures with beautiful chromium plated end caps. 9 Sturdy Factory and Utility fixtures—18" to 48" long. 15 to 160 Watts. Enough electrical parts to assemble up to 10 complete fixtures with tubes.

AND! Our complete training course covering the entire field of assembling, servicing and selling Fluorescent Lighting, a course easily worth \$35 to \$40.

Total assembled list price fixtures, electrical parts and tubes . . . . .	\$214.95
Training course . . . . .	35.00
<b>TOTAL</b>	<b>\$249.95</b>

(Note: All ballasts and tubes made by General Electric Co.)

Under our special offer—good for a limited time only—all the above is made available to representative dealers for the unbelievable low price of . . . . . **\$85.00**

We reserve the right to limit number of dealers in any sales district. Write now to insure being first in your district!

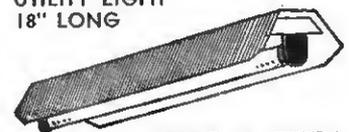
### NATIONAL FLUORESCENT SALES AND SERVICE COMPANY

404 North Wells Street

Department I

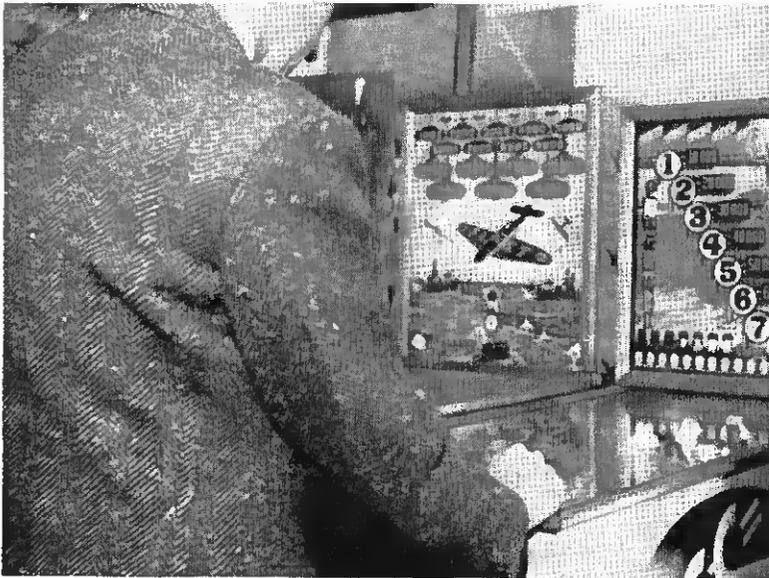
Chicago, Illinois

SPECIAL TRIAL FIXTURE  
UTILITY LIGHT  
18" LONG



\$1.95

BULB 75c EXTRA  
PLUS POSTAGE  
F.O.B. CHICAGO



## IN BALL Profits

**STRING OPERATORS** of coin phonographs and pin ball machines buy large quantities of pilot bulbs, vacuum tubes, incandescent lamps and even switches and relays for replacement use.

These parts take severe punishment and when one burns out the machine becomes non-productive until the "string" operator gets a repairman to fix it.

G. B. Blaine, owner of Portland Radio Supply Co., reports from Portland, Oregon, that some fifty strings operate throughout the city and state. Their offices are, for the most part, "in their hats" and direct contact to obtain this business is difficult.

When they do come in for needed parts he takes particular pains to please them. Clannish to an unusual extent, they quickly pass the word around to other operators if satisfied with the source of supply.

Frank Hood, technician for this parts jobber, says, "I make it a point to become familiar with the operation and the parts of the various machines. If an emergency arises and the operator will allow me to go out and make the lamp or tube changes that will get a machine 'back on the line' and producing, he will not forget it easily. We do not maintain any regular service department, however. Operators pay cash, never ask for special discounts or credit."

The larger "string" operators employ their own servicemen, while smaller outfits call in independent radio servicemen to make the necessary repairs. These technicians carry their shops in their cars, need to be equipped with tools and parts necessary to quickly restore the machines to operation.

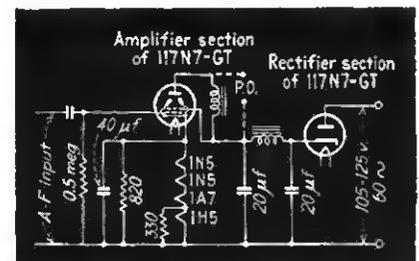


### Portable Rectifier

The 117N7GT is a combination rectifier and beam power tube and was developed primarily for use in three-way portables receivers where the tube filaments are to be operated by the cathode current of the power output tube. RCA report the performance of the tube under these conditions of operation.

The circuit arrangements are shown in the diagram, where the filament string consists of four tubes of the 1.4 line. The voltage across the total filament line provides the control grid bias for the power output section of the tube and amounts to 5.2 volts. This voltage gives a value per filament of 1.3 volts when the receiver is operated from the 117 volt power line and the dc resistance of the choke is 500 ohms.

The filament circuit shown includes an 820 ohm shunt across the entire string and a 330 ohm shunt across the filament of the 1H5GT. The 820 ohm shunt is suggested when a 3Q5GT is



switched into use for battery operation. The 330 ohm shunt prevents excessive plate current from entering the 1H5GT filament.

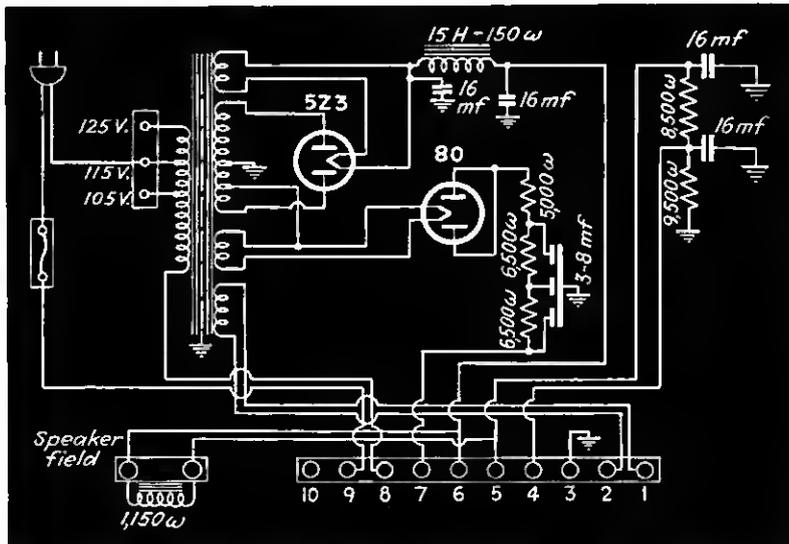
The voltages on the plate and screen of the 117N7GT must be sufficient for the cathode current to develop 5.2 volts across the filaments when all the tubes are operating.

This condition results in the circuit shown with 84 volts on the plate and about 91 volts on the screen. These voltages occur when the voltage across the second filter condenser amounts to 96.5 volts.

The circuit may be changed to include a resistance of 3000 ohms instead of the choke. The first filter condenser should then have a capacity of 36 microfarads for proper voltage output and filter action. The circuit of the series filaments remains the same.

Both circuits were tested in a typical receiver for noise and hum. For

# Service Department



## Power and Bias Supply

To permit better stability by reducing the overall temperature rise of the receiver and to keep hum at minimum, Hammarlund employs a separate power supply in the SP-200 model.

A cable connects the terminals shown in the diagram to the receiver to furnish filament, plate and grid bias voltage.

The 5Z3 tube is connected in a full wave rectifier circuit and its output filtered by a 15 henry choke. The speaker field serves as a second filter choke in standard models of this receiver while special models employ another choke in the power supply to replace the speaker field.

Grid bias for the entire receiver is obtained from the 80 rectifier tube. This is connected "backwards" in a half wave rectifier circuit to supply the necessary negative bias voltage.

An extra tap on the power transformer conducts ac voltage of the proper value to the filament of the 80 rectifier tube. On the negative half of the cycle current flows through the tube since the plate is then at positive potential in respect to the filament.

The center tap of the high voltage winding now becomes the positive terminal of the bias system. The three resistors and the condenser block shown filter the bias voltage for use in the receiver chassis where it returns to ground through a resistor network. Taps at the proper points in this network provide the various voltages for the different stages.

the choke circuit the noise and hum was 47 db below the 600 milliwatt level used, and for the resistance circuit the value was 44 db below the same level.

ing purposes. When the converter is cut out the line voltage is removed from the converter by means of a pair of contacts on this switch.

There are no gain controls on the converter, those contained in the receiver are required for control of the signals developed by the converter. The unit contains its own power supply, a power transformer, 6ZY5G rectifier and a filter system being included.

The longer wave band range is from 95 to 250 kilocycles and the second band covers the frequency range between 250 and 590 kilocycles.

## Low Frequency Converter

The function of one new converter is to amplify and heterodyne all signals in the frequency range between 95 and 590 kilocycles to produce a constant frequency of 1550 kc which is fed out of the converter on a twisted pair line into the input terminals of the receiver.

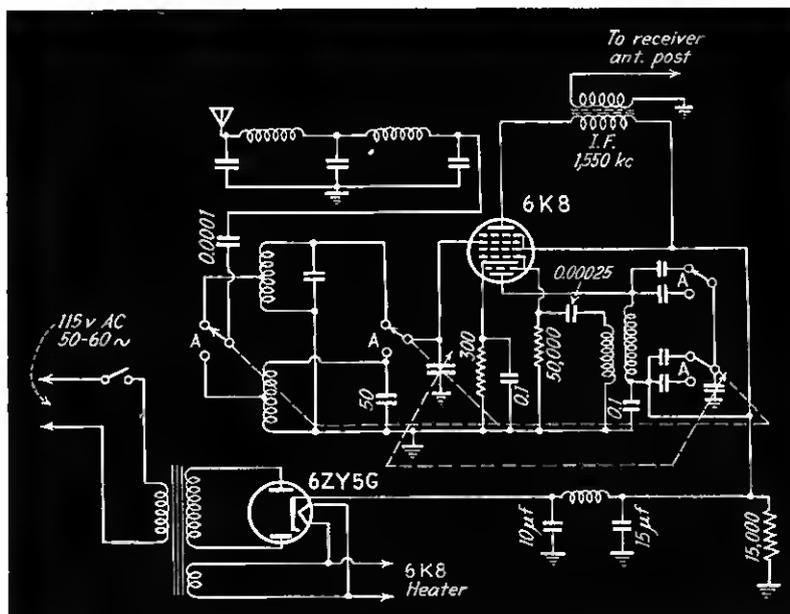
Manufactured by RME, the LF-90 converter can be used in conjunction with any receiver which is capable of tuning to 1550 kilocycles. The sensitivity will depend to a large extent upon the sensitivity of the receiver but usually any receiver in fair operating condition will provide sufficient sensitivity for the long wave reception since the converter itself has a substantial gain.

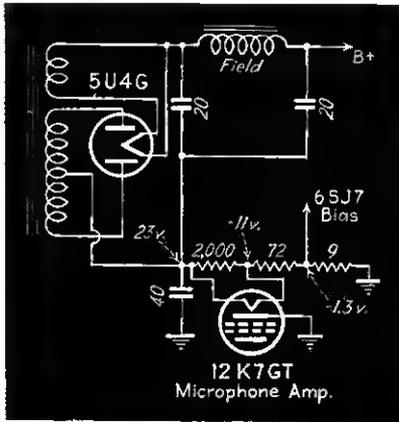
The tuning range is divided into two bands by the switch shown in the diagram. This switch selects the proper coils and trimmer condensers for the first detector and oscillator portions of the 6K8 converter stage.

An antenna changeover switch is used for cutting the converter into the circuit ahead of the receiver, or cutting it out if not required. This permits the operator to use either the combination for long wave reception or the receiver itself for regular tun-

## DC On Filament

The first stage of a high gain a-f amplifier is the stage most susceptible





to ac hum pickup. When the filament is ac operated leakage from the filament to cathode will often be the point of greatest difficulty.

To achieve minimum hum in this first stage RCA employ dc on the filament of this stage in models VHR 207,407. As shown in the diagram, this is obtained from the negative return of the power supply circuit.

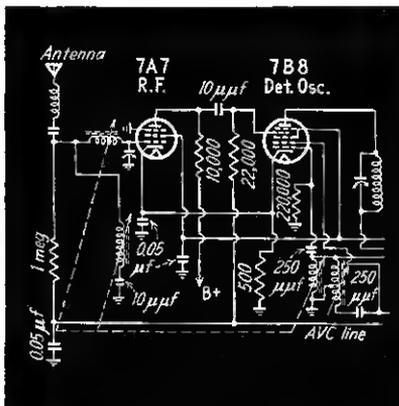
The 5U4G rectifier tube supplies the plate current to the tubes in the receiver. The filament of the 12K7GT is connected across the 2000 ohm resistor in the negative return circuit. This allows the voltage drops marked on the schematic.

The cathode of the tube is grounded to the chassis and although a potential of from 12 to 23 volts exists between the cathode and filament this is well filtered direct current and will not introduce hum.

The 12K7GT is employed as a high gain microphone amplifier when the set is used for recording. When records are not being made the filament remains connected in order to maintain the proper bias voltages developed in this negative return.

### Inductance Tuning

Several manufacturers have omitted the usual tuning condenser gang on



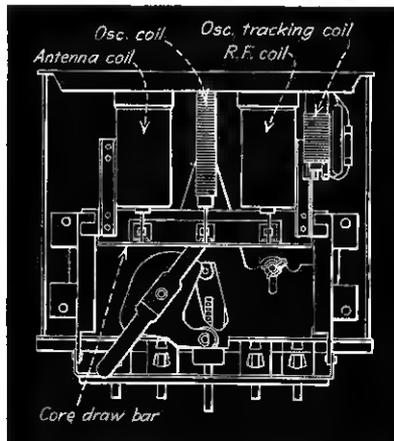
some home radio models this season and now auto radios are appearing with this change.

Instead of the condenser gang permeability tuning has gone mechanized and plungers inserted into the coils are geared to the tuning knob.

The mechanical drawing shows the bottom view of the Philco S-1824 model for Studebaker. The tuning knob controls a lever arrangement that forces three metal plungers into the antenna, r-f and oscillator coils. These plungers are attached to the core draw bar and tune the coils shown ganged together in the schematic diagram.

In case the dial calibration is off frequency it can be corrected by changing the starting position of the oscillator plunger. This can be done by unsoldering a piano wire from a lug at the end of the plunger which will permit the core to move. A change of 1/64 of an inch in the position of the core causes a change of about 20 kilocycles on the dial reading.

If the dial reads low it can be corrected by starting the oscillator



plunger further in the coil. If it reads high the core should be pulled out further.

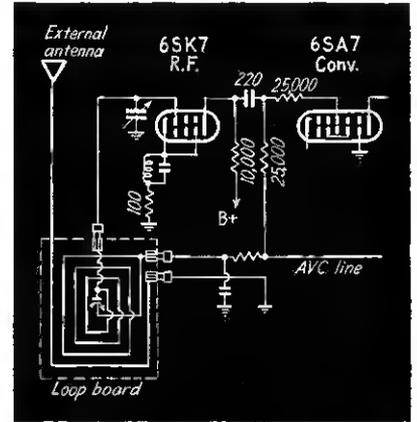
One coil in the r-f stage acts in conjunction with the ten mmf condenser to form an image trap circuit and is tuned in step across the band by the plunger.

For padding of the oscillator at the low frequency end of the dial a fourth coil is provided in the oscillator circuit.

### Cathode Trap

In model FA-408 Emerson employ a type 6SK7 tube in the r-f amplifier stage.

The cathode circuit of this tube contains a coil and condenser com-



bination that is fixed-tuned to the 455 kilocycle i-f frequency and provides a trap circuit for signals of this frequency that may be conducted to the set by the antenna.

The cathode circuit also includes the unbypassed cathode resistor shown in the diagram to provide some degenerative action in this stage. The loop antenna is connected as the inductance for the stage, an external antenna being connected as shown if desired.

The r-f stage is resistance coupled to the first detector portion of the 6SA7 converter tube. Here the 25M ohm grid resistor is returned to the avc line to receive bias voltage.

The receiver is designed for single band operation and contains a total of seven tubes. Inverse feedback is employed in the audio section when records are reproduced and cut out on radio reception. The voice coil provides the feedback voltage which is fed to the grid of the 6SQ7 first audio stage.

### New Tubes

**6SD7GT**—Semi-remote cutoff relatively high transconductance pentode for use as an r-f and i-f amplifier. *Raytheon*

**6U6GT**—Beam power amplifier for reasonably high output at lower supply voltage than normally required. In class A1 provides 5.5 watts power output at 200 plate volts. *Raytheon*

**3S4**—Amplifier for use in the output stage of lightweight portable equipment. Essentially the same characteristics as the 1S4 but with a center tap in the filament to permit either series or parallel operation. *RCA*

**866A/866**—Half-wave mercury vapor rectifier, combines the ability of the 866A to withstand high peak inverse voltage and the ability of the 866 to conduct at relatively low applied voltage. *RCA*

# TRICK Troubles

HOW TO find and fix things textbooks don't talk about

By VIN ZELUFF

**A**LL OF US HAVE, at some time or another been stumped by the operation of a certain circuit in a receiver awaiting repair.

Unfortunately our need of folding money is usually too great to warrant spending very much time in experimenting with a cranky circuit and we complete the repair without fully understanding the cause of the trouble.

We just file it away in the back of our minds, earmarked for future leisure time that never does arrive.

Many servicemen start at the power supply in checking a set, and well they might since none of the other stages can operate properly if there is trouble here. Standard testing methods with the usual meters will readily show up most of these troubles in a few minutes.

The next logical stage to inspect is the audio system. Here we can again use our meters to determine the voltages and current drains of the various tubes. A complication presents itself at this point. The tubes may be receiving proper voltages but what about the audio signal circuits?

To check these we must introduce the first intangible, an a-f signal. This may be done in many ways and depends directly upon our stock of test equipment.

## Audio Source

We could attempt a fidelity curve but the customer is waiting for the estimate so let's make a quick check to make sure an a-f signal will pass through these stages. This signal can be taken from an audio oscillator or

the a-f portion of the signal generator.

If we're too lazy to connect up one of these we can use a small condenser of about 100 mmf and take a sixty cycle signal from the high side of the power line for this quick check. If the local utility objects to the use of their power as an audio signal source a finger to the control grid of a-f tubes will usually produce a satisfying 'buzz' in the speaker.

This shows the audio stages are operating properly so we must next examine the second detector.

## Diode Voltage

Here a diode greets us and reminds us of the high voltage rectifier that we checked in the power supply a few minutes ago. Although not a full-wave rectifier it presents a similar circuit.

A transformer feeds the diode, a dc voltage is developed for the avc line, an ac or a-f voltage feeds the audio system and r-f is lost in that little filter circuit. Nothing much here that our meters can check.

Just the same lets put the voltmeter across the diode load resistor. 68 volts? Where did that come from? It might be a shorted duodiode or possibly plate voltage is coming through the i-f transformer from the preceding stage. But the meter shows a negative voltage.

Normal action of the diode provides such a voltage for avc use but at lower values. A high signal input could cause this voltage, but where did it come from?

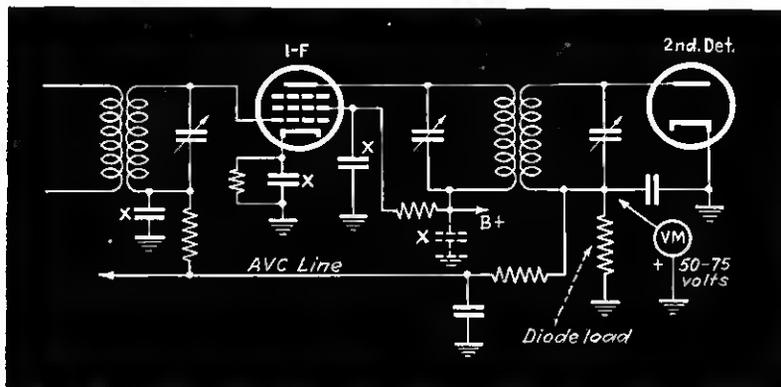


Fig. 1—If the i-f stage oscillates the diode will rectify the r-f current

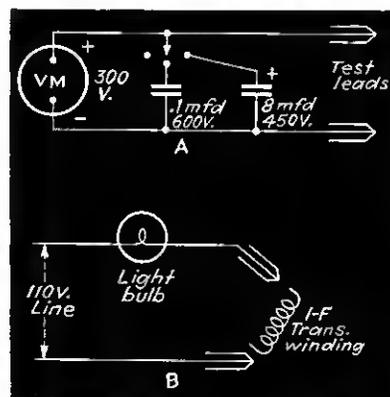


Fig. 2—Two simple testers

Let's listen to the speaker and tune the set. No stations will probably be heard but a few weak heterodynes may come through. Sounds like oscillation in the r-f or i-f stages. And it is. A powerful oscillation of the i-f stage preceding the diode. The output is being fed into the diode and producing that voltage across the diode load resistor.

As a potential oscillator the i-f stage contains all but one of the essential elements. The tuned grid and tuned plate circuits require only grid to plate capacitance in the tube for feedback to produce oscillation. This the screen grid of the i-f tube prevents when it is properly bypassed. If the screen condenser open-circuits the stage will oscillate.

Not all oscillation in the i-f stage will cause the relatively high voltage at the diode load. Usually the stage will weakly oscillate and allow the received station to come through with fair volume but with a heterodyne whistle at each side of the carrier.

In this case the actual part causing the condition may be an open bypass condenser in the screen, cathode, grid return or plate circuit. In some sets an open condenser in the cathode circuit may not cause an oscillating condition but rather a loss of volume due to a small amount of degeneration in the unbypassed cathode.

## A Simple Test

A few servicemen employ the stunt shown in Fig. 2A to check voltages and at the same time check the circuit for an open bypass condenser.

The shop voltmeter is connected with a switch that throws a bypass condenser across the test leads. While checking operating voltages against ground potential the condenser will then bypass every terminal contacted by the test prod.

As shown in the diagram an electrolytic condenser can also be cut in by the switch for use when checking power supply circuits and will automatically substitute for an open filter condenser. An extra contact permits

use of the meter alone when desired.

This and other similar substitution methods can be employed in locating the defective bypass in an oscillating stage. However, other parts might also be the cause of the condition.

In some receivers the last filter condenser is also employed as the plate bypass and no separate r-f bypass appears on this line. Usually an electrolytic type, this condenser may or may not open circuit as a filter unit. It may only cease functioning as an r-f bypass. Substitution of such a test condenser across this filter will check this.

In many ac-dc models the screen and plate supply are common to one bypass or filter condenser and no separate resistance-capacity filter is provided for the screen circuit. Although this design might seem to have ideal conditions for possible oscillation if a bypass opens, the low plate voltage encountered in these sets does not usually permit of any but the weaker type of oscillation.

However, even these weaker oscillations will produce some dc voltage across the diode load resistor. With the antenna disconnected or grounded this rectified r-f current from the oscillating i-f stage will remain constant regardless of the setting of the tuning dial.

#### Small Transmitter

The relatively powerful oscillation that shows up on the diode load resistor is most often found in straight ac receivers where the plate voltage is much higher. Here the oscillation may occur at a frequency determined by the grid and plate i-f tuned circuits, roughly the i-f frequency, or the frequency may be determined by the constants in that portion of the plate power supply that now becomes part of the tube's plate circuit. In this instance the grid circuit will probably resonate through the grid return filter resistors and condensers in the avc line. Variable with each receiver, this would probably take place at a rather low frequency.

Occasionally a set is found with an oscillating i-f stage that will not respond to the "substitution" treatment outlined. When this occurs it may be found that a slight detuning of one of the trimmer condensers of the i-f stage will eliminate the oscillation and allow nearly normal operation. However after an hour or two of playing on the bench (or in the home) it will drift right back into oscillation.

If the detuning adjustment is carried far enough the oscillation can sometimes be permanently eliminated. However, if nothing else, this practice may lower the gain below that necessary for good reception.

This trouble has been most often reported on fairly recent receivers that employ a high gain i-f stage that is operating rather close to the point of oscillation. As a remedy some technicians decrease the coupling of one of the i-f transformers by moving the windings further apart. This may not be practical in some cases and an easier method would be to slightly increase the value of the cathode resistor.

In this case it is assumed that variable operating conditions in the field have caused the oscillation and that it is not due to a breakdown in the set. If the lowest voltage section of the voltage divider opens a somewhat similar action may take place due to the increased terminal voltages to the tube.

#### Another Trick Trouble

Crackling of static sounds in the speaker can often be traced to the i-f

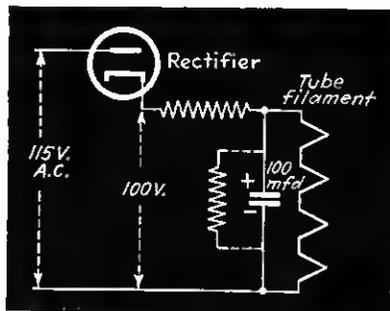


Fig. 3—Simplified filament circuit

amplifier stage. To further befuddle the issue these sounds may only occur when a signal of a certain level is being received. Unless this same level is maintained while tracing the signal the crackle may not develop.

Some of this crackling may originate in an i-f transformer. A winding may open and yet the ends of the wire at the break may just barely make contact. This contact may be sufficient on a weak signal but a stronger carrier may cause a variable or noisy connection at this point.

#### Brute Force Tester

To quickly check i-f transformers that are suspected of noisy operation one serviceman employs the circuit shown in Fig. 2B. An ordinary house bulb is connected in series with a pair of test leads and connected to the line. If the test prods are touched to the terminals of the i-f windings the bulb will light if the winding is in good condition. If it doesn't light, or only lights momentarily, the winding is defective. The high voltage will burn up the bad contact point in the winding and the circuit is then open.

The test leads should not be left connected for more than a few moments since the current through the winding may be heavy enough to burn up the whole coil. The current flow can be regulated by the size of the bulb. For most of the transformers now in use this may vary from ten to fifty watts.

If the winding is in good condition it will not be affected by a momentary current flow. A few of the older 175 kilocycle i-f transformers might require a larger bulb in the circuit. Two and three hundred watts bulbs have been used on some of these. Of course these will pull a current of two and three amperes through the winding, but no ill effects were noticed when the contact time was short.

Some of the earlier models of three-way portable receivers employed a circuit similar to that shown in Fig. 3.

The rectifier tube supplies the dc voltage to the filaments connected in series, dropped to the proper value by the series resistor. A large capacity condenser is usually connected across the filament line.

#### Cold Tube Burnout

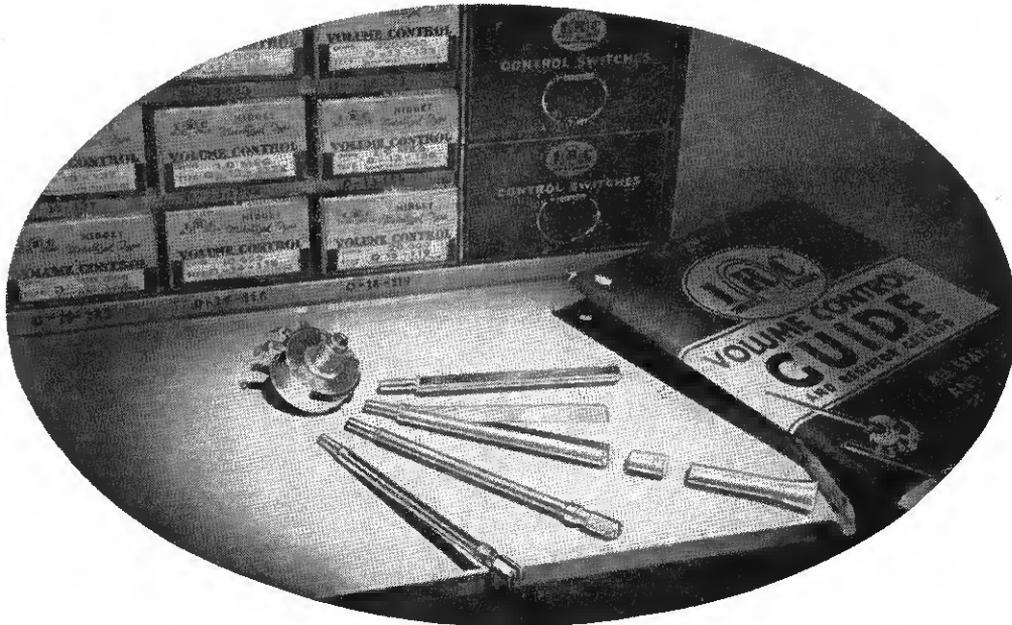
While the set is operating on the power line a tube may burn out. The full voltage from the rectifier is now applied to this condenser. While the customer brings it to your shop this charge leaks off. When the set is plugged in again on the line the condenser charges up again. The tubes will now be checked and the defective one located.

When good tubes are put back in the sockets a flash may be noticed in one of them when the last tube is inserted. The filament line was then complete and the filter condenser discharged through the filaments. In many cases this discharge current will blow still another tube.

Even though the set may not be plugged into the power line outlet, replacing the tubes into the sockets will often result in one tube immediately burning out.

Later model portable receivers incorporate a resistor system that will allow the condenser to leak off its charge in a very few seconds and prevent any action through the tube filaments when a new tube is inserted. If the resistor circuit should open, however, the same condition will exist and new tubes will cause a mysterious burn-out of one filament.

To prevent this discharge a resistor may be connected as shown in the dotted lines. A value of 500,000 ohms will discharge the condenser in a reasonable time and yet not disturb the voltages to the tubes.



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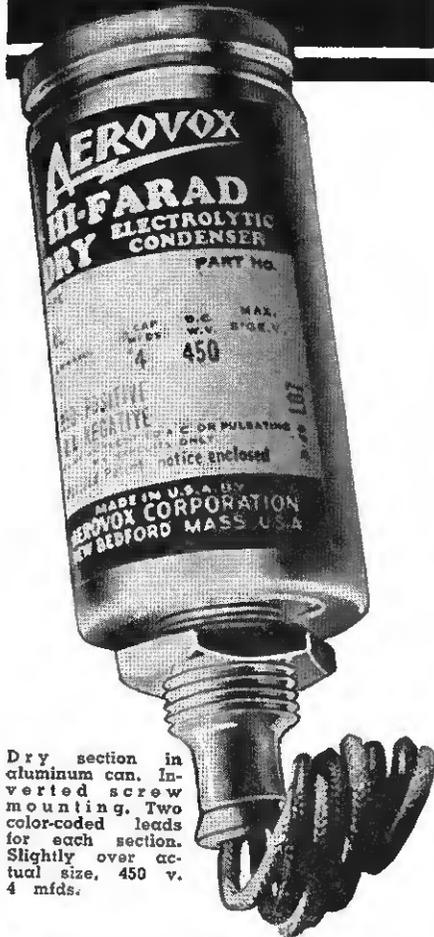
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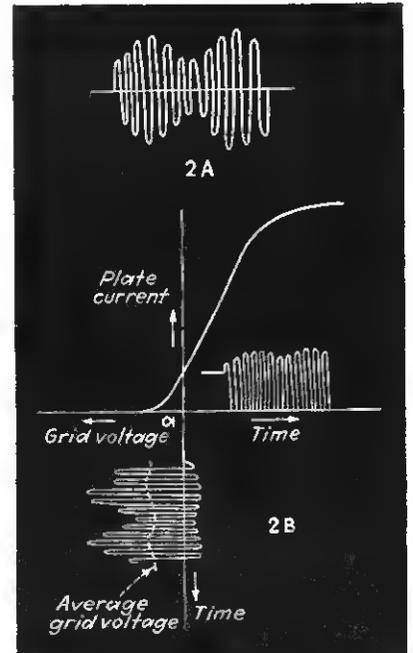


Fig. 2—Grid bias plate current curve

THE LIMITER in a frequency modulation receiver is generally represented as a means of shaving all signal cycles down to the same size. However, its actual operation is not quite so simple

By JOHN M. BORST

THE LIMITER in a frequency modulation receiver is a circuit which greatly reduces or eliminates amplitude variations of the received wave.

This variation consists of amplitude modulation of the carrier by noise, hum, or any other audio signal which the carrier may have acquired accidentally.

Let us examine a typical limiter stage as represented schematically in Figure 1. A sharp cut-off pentode such as a 6J7, 1852, etc. is employed with a resistor, R, in the grid return, the resistor being shunted by a condenser, C. In the absence of a signal, the grid bias is zero and consequently, the plate and screen voltage must be kept low. Another reason for low plate and screen voltages is that the tube will operate as a limiter for smaller signals if the voltages are low.

### AM Signal Variations

Assume that a signal with amplitude modulation, as in Figure 2A, is applied to the limiter grid. What happens is illustrated in Figure 2B. The grid-bias vs. plate-current curve is shown here together with the variations in grid bias and plate current.

Let us first confine our attention to the grid circuit. At the first positive

half of the cycle, the grid is driven positive and will draw current. This current is limited only by the resistance in the circuit, that is, the grid-cathode resistance which results in a rapid charge of the condenser C.

The grid has no chance to become very much positive due to the short-circuiting action of the tube. Instead, the condenser charges up nearly to the peak voltage of the cycle, making the grid-bias that much negative.

During the negative half of the cycle this negative bias, the charge of condenser, C, is slowly leaking away through R, but not fast enough to follow the radio-frequency voltage variations. Therefore, during the negative half of the oscillation the grid-voltage swings beyond the plate current cut-off point.

Then the grid goes positive again at the next positive half of a cycle and the train of events repeat.

Note that at each positive half cycle the grid goes slightly positive, but only slightly because of the relatively heavy grid current. The result is that all the positive tops of the signal at the grid tend to become aligned while the negative peaks now carry double the previous variation.

The center of each grid-voltage cycle is situated on a wavy line which

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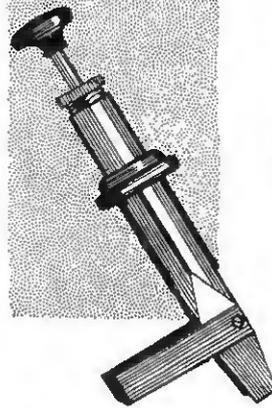
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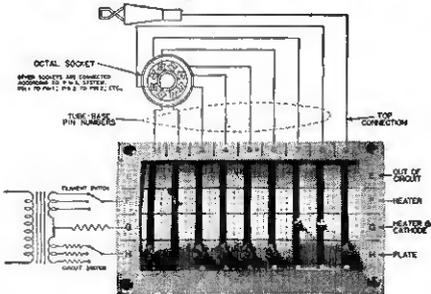
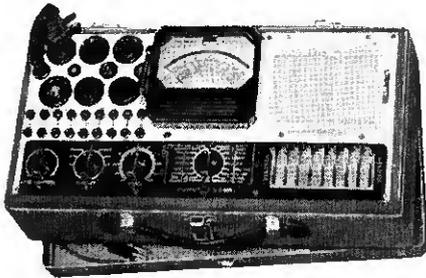
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### Bias Follows AM

The tops of the waves become slightly flattened due to the loading when the grid goes positive. In order that the average bias shall follow the modulation envelope but not the r.f. signal itself, the time constant of C and R must be chosen so that it is small compared to the duration of one cycle at the highest audio frequency.

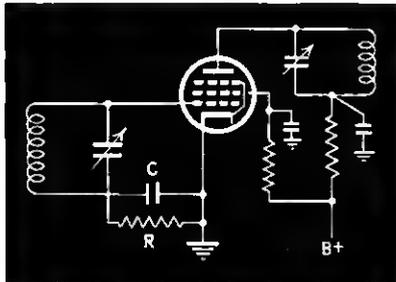


Fig. 1—A typical limiter circuit

If it is too large, the average bias will remain fixed during the audio cycle so that the positive peaks of the r.f. cycles fail to reach positive grid voltage during the negative modulation peaks. The modulation envelope is then transmitted through the stage.

### Plate Current on Positive Peaks

The plate current variations can be constructed from the characteristic in the usual way as in Figure 2B. This shows that the positive peaks of the signal at the grid will cause plate current to flow but that during a great part of the cycle the plate current is cut off. It is during these cut-off times that the variations in amplitude take place and consequently this does not affect the plate current signal.

Since the alignment of the tops of the waves in the grid circuit was not perfect, there is still some of the amplitude modulation left but it is greatly reduced.

It should also be clear now that satisfactory limiting depends on the fact that the signal at the grid should not be less than "a" in Figure 2B, at its weakest moment, that is, even the smallest cycle should swing the grid beyond plate current cut-off on its negative swing.

In this discussion we spoke of reduction in modulation of the signal. Noise which has not amplitude-modulated the signal is not eliminated by the limiter. In the construction of Figure 2B such a noise component should first be combined with the signal, giving a resultant which differs from the original signal in amplitude, phase and frequency. The amplitude variations are reduced but the other effects remain and show up as noise after detection

# DON'T LET ONE OF THE \*400 STUMP YOU!



No matter whether it's Mrs. Twiddleby-Gottrocks, with her "Imperial-Splendid", or Gertie McSczytovarisich, with her "Week-end Six-fifty Special", Homer G. Snoopshaw, B. R. S., (Battery Replacement Specialist), can solve the battery problem. It's his job. He's the Replacement Adviser in Bud's Radio Shop. Of course, it may take him a week or two, but he finally gets 'em. His employer has learned to rely on Homer—and last week made him Vice-President-In-Charge-of-Replacements.

\*Over 400 portable radios are listed in the replacement guide. See your local distributor or write Burgess Battery Company, Freeport, Illinois.

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CLEVELAND, OHIO

## BOSCH 38

Weak after repair . . . care should be taken when replacing chassis to keep shaft of volume control from grounding.

## G-E F63, F66

Intermittent or dead . . . check output transformer primary.

## G-E H-639

Noisy . . . second i-f transformer opens and arcs or voice coil rubs. Turntable doesn't turn . . . phono needles jam motor or broken spring on friction wheel.

## PHILCO 16

No signal at low end of short-wave band . . . check .003 mfd. condenser, marked No. 20 in the schematic, for intermittent open. Also check .0007 mfd. condenser connected to type 76 tube, for intermittent open.

## PHILCO 37-600

Weak on low frequency end of dial . . . replace 200 ohm cathode resistor of 6A8G oscillator tube with one of 300 ohms.

## PHILCO 38-14

60 cycle carrier modulation . . . replace .01 mfd condenser, connected from one side of the line to cathode of 25Z5 rectifier, with .05 mfd 600 volt unit. Alignment of i-f . . . the converter circuit need not be disturbed if the signal generator is connected through a 250 mmf condenser to the antenna lead and dial is set between 550 and 600 kc where no station interferes.

## PHILCO 54

Oscillation . . . separate grid and plate leads of i.f. transformer. Hum modulation of signals . . . replace volume control.

## RCA VICTOR RE 80

Loud volume, no control . . . pilot light socket or lug shorts to shield in front of antenna coil. Bend lugs forward and tape.

## RCA RECORD CHANGERS

Erratic operation . . . rubber rim on large disc becomes dented. For a temporary repair remove nicks with medium coarse sandpaper.

## TRICKS of the TRADE

### RCA CE-29 ELECTROLA

Occasional continuous cycling of mechanism . . . cycle should stop when thin arm under motorboard engages notch in round plate. Bend arm or plate until both parts are in exactly the same plane.

### RCA VICTOR RAE 79

Intermittent and noisy phono operation . . . friction contact on the movable arm of the phono volume control is a flat copper spring, riveted to the arm and rides on an insulated terminal lug in the center of the control cover. Pry off cover, clean contact and lug, and solder an insulated pigtail between these.

### SILVERTONE 6551

Hum . . . be sure the can of filter condenser is securely grounded to chassis.

### STROMBERG-CARLSON 26

Fading and two-spot tuning . . . insulated screw passing through the third tuning condenser shield is con-

nected to the stator of the third condenser section. Screw leaks to ground, disconnect from circuit.

### WESTERN AUTO D-716

Bass portion of tone control muffled . . . move brown wire on left leg of tone control to top of voice coil winding, number two clip on six prong speaker socket, to add degenerative feedback. Also reported on Airline 62-192, Wells-Gardner 2CM and Gamble Skogmo 22CM756.

### ZENITH 6D116

Lacks pep in some localities . . . change i-f bias resistor to 300 ohms.

### ZENITH 6R481

Hum . . . ground the common negative to the chassis. Open the connection between the wavemagnet shield and the external ground lead and insert a .01 mfd condenser.

### ZENITH

Noisy tuning on flywheel models . . . when dial is rotated in one direction dial pulley or flywheel catches in tuning eye leads. Insulate worn leads and arrange more slack.

## AS CHIEF CONDENSER BLOWER OUTER OTTO OOMPH WAS A FLOPPEROO

Ever since Otto Oomph was a boy, he suffered from a strange disease, Smashophobia, the doctor called it—the horror of breaking things—but there was nothing to be done about it. When he broke a Christmas tree ornament one year, poor Otto cried for two days. When he grew up, he wouldn't shoot as much as a clay pigeon and even the thought of denting the fender of his car would make him sick.

Eventually, however, Otto became an electrical expert. That got him a job in the Sprague laboratories and Otto was really happy for the first time—that is, until someone made him Chief Condenser Blower Outer in the Test Division.

Now, voltage in the electric chair at Sing Sing is 1,200 volts. In contrast, controllable AC voltages in the Sprague lab run as high as 7,200 (and much higher in the special high voltage lab) for here is where Sprague condensers really get "the works." They are torn apart, tortured and blasted, not only to see how good they are, but how to make 'em even better.

WHAM! Poor Otto jumped six feet when a can condenser, deliberately loaded with supercharge to determine its breakdown point, exploded in a cage.

BAM! SNAPPETY-CRACK. Otto shivered as another condenser gave its life under 4,000 volts of D. C. . . .

CLICKETY-CLICK in monotonous regularity as AC refrigerator motor starting condensers were switched tortuously on and off 150 times an hour.

SIZZ-SIZZLE and SISS as vapor streams played on condensers to prove their moisture-proof ability.

In a massive oven, dozens of units were undergoing life tests at 200° F. Elsewhere, Television condensers were telling their story under 3,000 to 10,000 volts of DC; tiny electric razor



condensers were getting the equivalent of 14 years of the hardest kind of use; and, almost every minute some condenser gave up the ghost and another fact was added to the science of constructing condensers that excel in the rough and tumble usage of the field.

"I can't stand it—I can't stand it," wailed Otto at last, weeping over the remains of an 8 mfd. 450 V. Atom midget dry electrolytic.

"Gosh, Otto," consoled an engineer, "What you worrying about? That condenser is only rated at 450 V. We had to smack it with a surge of almost 700 V. before it went."

"Sure," sobbed Otto. "But I can't stand this business of busting things. It ain't fair to treat such swell condensers so downright mean. It makes me sick. I—I wanna quit." . . . And quit Otto did.

'Twas a year before we heard from him again and then he wrote:

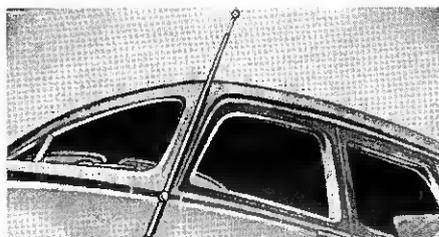
"Dear Boss: Maybe you think I was silly to quit my job, but it just isn't my nature to bust things up. I'd go home nights and dream about condensers on those torture racks—the finest condensers in the world just waiting to be blown up even if it took all the power in Massachusetts to do it.

"But all's well that ends well. I'm in the radio service business and doing fine. I use Sprague Condensers—and boy, are they real! Not a blow-out in a carload. No failures from moisture—or anything else in fact. I realize it's largely because of the work you guys are doing back there in the lab, but I still say blowing up condensers is a belluva job for a man sensitive like me.

Love and Kisses,

OTTO OOMPH"

SPRAGUE PRODUCTS COMPANY  
North Adams, Mass.



# BRACH Antennae

Automobile  
Home — All types  
F-M Systems  
Television  
Police • Marine  
Multiple Systems  
Complete Kits  
Accessories

Made by World's Oldest and Largest  
Manufacturers of Radio Aerial Systems

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NEWARK, N. J.



## THE EASY WAY TO CUT HOLES IN RADIO CHASSIS



Here's a handy tool to help the radio worker save many hours of work when cutting holes for sockets, plugs, connectors, and meter holes in radio chassis. No tedious drilling, reaming, or filing is necessary. A cap screw is inserted in a small drilled hole, and the punch is easily forced into the die by a few turns of the cap screw with an ordinary wrench. Ten punches are available for cutting 3/4, 7/8, 1, 1 1/8, 1 3/8, 1 1/2, 1 3/4, 1 7/8, 1 1/2 and 2 1/4-inch holes. Write for more information.

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1708 Columbia Ave., Rockford, Ill.  
Please Send Information On Greenlee Radio Punches.

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

QUARTER INCH HOLES will be found in the side of the housing near the tubes and vibrator on some of the 41 Philco auto radios.

In order to remove a tube insert the end of a small screw driver through the hole in the housing and between the sub-base and the base of the tube. Push down on the screw driver and the tube should pop out.

Holes are provided in the housing for removal of the 7A7 i-f tube, 7B6, 7Y4, 7C5 and the vibrator. All others will have to be rocked in the direction of the socket rivets.

CHILDREN OFTEN POKE pencils and other objects through speaker grilles and successfully puncture the cone and break leads.

A piece of window screening, cut to the diameter of the speaker, and installed between the cone and grille, may save your nice, new cone from the little divvils.

### RURAL RADIOS

(Continued from page 21)

short-wave reception in addition to the broadcast programs. Dual and 3-band sets are included in the new series, with coverage down to 12 meters.

New models have "economy blinkers" to indicate when power is turned-on and other battery saving refinements. Manufacturers are providing record players for farm sets and there is a "tilt-front" cabinet with accommodations for playing 10 and 12 inch records. The phonos use spring wound motors.

The makers of wind-chargers and gasoline driven generators for 6 volt battery and 32 volt receivers have incorporated in their equipment a number of new improvements. Farmers and dealers will have special interest in these advancements.

### FM NEWS

(Continued from page 23)

70 miles from Milwaukee.

The National Life & Accident Insurance Co., Nashville, Tenn., has installed an FM antenna atop an 878 foot tower declared to be the highest structure of its type in America. The station is to operate

with approximately 20,000 watts.

Experimental station WIXER started daily operation on December 19 from its FM station installed on the summit of Mount Washington, New Hampshire. This transmitter is figured 6300 feet above sea level. Has been granted a construction permit to cover an area of 31,000 square miles.

WIXER is owned and operated by The Yankee Network. Currently rebroadcasting programs from WIXOJ, Paxton, Mass.

### MAKING PROSPECTS LISTEN

(Continued from page 33)

got the drift). She listened from then on, and he sold her the box...

#### Another Method

A very tough case, perhaps the toughest one I ever saw (where the box was sold).

The salesman had talked to the woman about a box, and when he called in the evening he was invited in by her—only to be met by a tirade from the husband which swept him off his feet. That man

## A "LAB" to fit your pocket



**Readrite RANGER MODEL 739**  
Dealer Net Price **\$9.90**

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

Pocket Volt - Ohm - Milliammeter with Selector Switch. Molded Cass. . . Precision 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 Price, including all accessories . . . \$9.90  
MODEL 738 . . . DC Pocket Volt-Ohm-Milliammeter, Dealer Net Price. . . \$7.50

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told the salesman that he was not going to buy a box and talking about it was a waste of time; he mentioned everything from a \$3.00-a-month operating cost to the man he knew who spent \$40 on repairs two weeks after his One Year Warranty expired—and to make it all very nifty he had a loud voice, liked to interrupt, and drowned the salesman out when he did.

Well, the salesman was hot (natural reaction). He didn't show it at all, but he was really burned up. But what did he do?

When he was getting the blast, he listened. When he was interrupted, he allowed himself to be. Finally, having no opposition, or so little, the man began to slow down.

When the salesman was sure he could have the floor, if for only ten seconds, he simply took out a piece of paper and pencil and said, "I can see that you are not going to buy a refrigerator, Mr. Jones (nothing to resist, so the man kept quiet). So I won't try to sell you one. But you've given me a lot of reasons for feeling the way you do, and I wonder if you'd mind giving them to me again. I want to list them."

The man was amazed, but the salesman was sitting there smiling, not contemptuously but in a friendly way, and the man couldn't very well take offense. (I think it was at that moment that he began to realize, in his oafish way, that he wasn't going to win *this* argument by the sheer power of his lungs).

He didn't want to repeat, asked why he should. "Well," said the salesman, "I want to answer them. You haven't allowed me to, yet, you know. And since there are several, I want to make sure I don't miss any of them."

The man finally repeated them, reluctantly, and with far less assurance! And the salesman even asked for additional details on some of them, such as the make of the box that was repaired, the makes and ages of the boxes from which the man had deduced his exorbitant operating cost—all of which put him on the *prospect's* side, for the moment, thereby gaining the man's confidence, thereby making him *keep his mouth shut*.

When everything was listed, briefly but with all necessary details (*and the man was listening*), the salesman took the first one, by itself, and went to work.



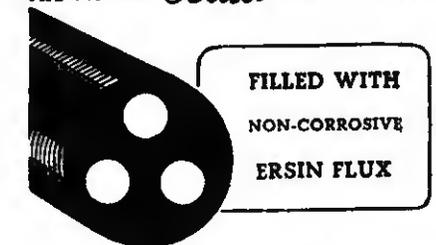
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Although Radio & Television Retailing takes every precaution to insure accuracy, we cannot assume responsibility for an occasional change or omission in the above index.

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## BUDGETING GROSS PROFITS

(Continued from page 36)

partment would have a somewhat reduced effect on the total store.

### Forewarned Is Forearmed

As the saying goes, to be forewarned is to be forearmed. The time to prevent red-figures from materializing is when advance indications point to their likelihood. It may be that certain months normally show a net loss. In such cases, the value of planning your operations lies in limiting the amount of loss, and then shooting for that as a goal.

In golf, the duffer regards a par-5 hole as a mountainous obstacle, crosses his fingers and hopes for the best. The expert regards the same hole as an opportunity to beat par, tries for it, and frequently succeeds. Try applying the same psychology to your business, and you will find yourself converting losses you thought were "normal" into profits. The way to accomplish this is by planning your operations in advance, as we have shown, then beating the plans.

## PARTS STOCK CONTROL

(Continued from page 38)

in May and June, condensers in late summer and early fall.

### Third Set of Sheets

We have not mentioned a third set of sheets. On these are jotted down parts ordered, but not normally stocked. As demand increases for special or new items, we add them to our store stocks. Of course, most new items as announced are added without reference to this record. However, it is surprising how many things could be overlooked without this "demand" record.

We readily admit that our system, or rather combination of systems, does not compare with more pretentious stock controls we have seen used by other concerns. However, the dogged thing in all its simplicity does its work well.

We have been using it for six years, and are still able to tell what is needed to fill in, without too much trouble. Factory representatives who drop in, get an order, and drop out again, without spending a week or so in checking stock, will attest to this.

**COMING!**

*1941 Radio Parts*

**NATIONAL TRADE SHOW**

*Stevens Hotel • Chicago*

TUESDAY TO FRIDAY  
JUNE 10 TO 13

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**JOBBER DAYS**

TUESDAY, JUNE 10  
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THURS. EVE.      FRIDAY  
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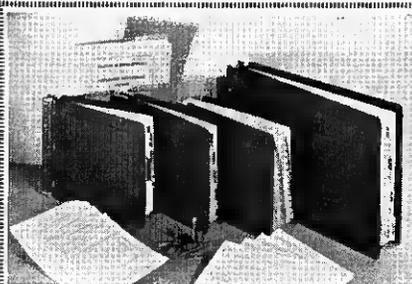
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A direct, easy-to-understand system, devised by an expert accountant in your line of business. It is in practical use by many dealers everywhere.

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

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522 S. Clinton Street      Chicago, Illinois

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Nationally known radio manufacturer dealing direct to dealers desires representation in Texas, Virginia, Ohio, Pennsylvania, New York, New England and Indiana. Box RW-146, Radio & Television Retailing, 330 W. 42nd St., New York, N. Y.

### POSITION WANTED

SALESMAN: Headed South. REFRIGERATION all year 'round is the sales ambition of Caswell Oden, interested in corresponding with southern retailers who can use a thoroughly experienced man. Address: 1844 North Willington Street, Philadelphia.

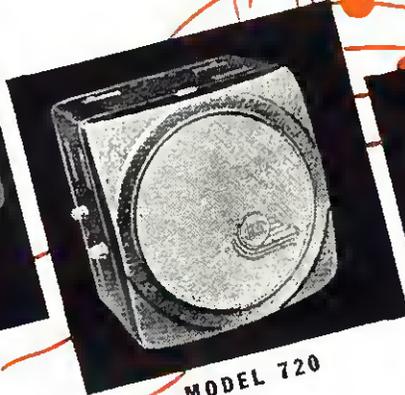
# ARVIN Car Radios



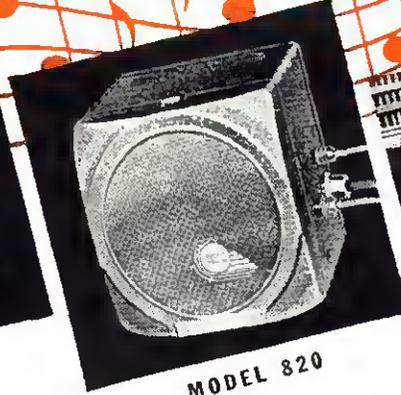
- ✓ TAILOR-FIT RADIOS WITH
- ✓ BEHIND-THE-GRILLE SPEAKERS
- ✓ MATCHING PANEL CONTROLS
- ✓ ALSO SINGLE UNIT-SETS



MODELS 520-620



MODEL 720



MODEL 820



MODEL 821

ALL WITH THE FAMOUS ARVIN *Phantom Filter*

## ARVIN

HERE'S HOW you deal yourself 4 Aces in the car radio profit game.

*Four Aces Deal*



- 1 Order four or more of the new 1941 Arvin Car Radios, during January, February or March, including at least one electric tuning model.
- 2 You receive a late Spring dating on this initial order.
- 3 You receive **FREE Sales Tools**—an attractive floor display demonstrator, wall poster, consumer folders and other selling helps.
- 4 You receive a **FREE CHAIR** for your service station or home—one of the famous Arvin All-Metal Outdoor Chairs, with initial order for 4 radios—2 chairs with eight radios. Offer expires Feb. 28.

★ Free Sales Material and Free Chair are shipped direct from factory, freight paid. Radios come from your jobber. You just can't "pass" on a deal like this!

● Everything your customers want in car radio is now available in the broader and better Arvin line this year. Six models with better-than-ever performance and a lower-than-ever price range—\$14.95 to \$46.95.

MODELS 520 and 620 are 5-tube superhet single-unit sets that tuck away under cowl and instrument panel. Both have thumb wheel dial for fast, easy tuning. Model 520 has added convenience of push button tuning for four favorite stations. List prices \$14.95 and \$18.95.

MODEL 720 is a 6-tube superhet with in-the-set speaker and universal or matching panel control. List price with universal control for any car \$27.95—with matching panel control \$31.35.

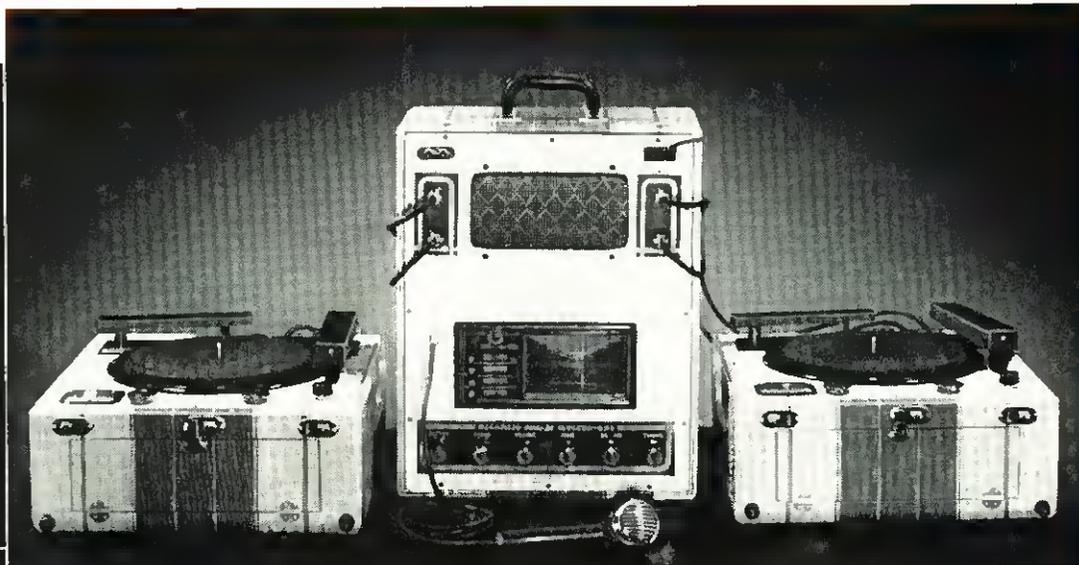
MODEL 820 is a 6-tube superhet with 8" in-the-set speaker and electric push button tuning control to match instrument panel. List price \$44.95.

MODEL 821 is a 6-tube superhet with behind-the-grille speaker for most popular cars and electric push button control to match instrument panel. List, \$46.95.

Order from your jobber now and take advantage of the Arvin "Four-Aces" Deal.

Prices slightly higher West and South.

**WILCOX-GAY  
RECORDIO-  
PRO**



RECORDIO-PRO—Showing Master unit (center) and two turntable units.  
Note connecting cables and plugs.

## A NEW, VERSATILE DUAL-SPEED COMBINATION

*Designed for School and Professional Use*



**MASTER UNIT AND ONE  
TURNTABLE UNIT**



**MASTER UNIT USED FOR  
PUBLIC ADDRESS**



**UNITS HOUSED IN EASY-  
TO-CARRY CASES**

### DUAL-SPEED RECORDING

RECORDIO-PRO records at 78 r.p.m. or 33  $\frac{1}{3}$  r.p.m. either from high grade microphone included with Master unit, or from radio programs.

### DOUBLE TURNTABLE

Used with two turntable units, Master unit makes possible continuous recording. No interruptions for changing of record discs. Also this arrangement provides for duplicating records; for transferring material from 78 r.p.m. to 33  $\frac{1}{3}$  r.p.m., or vice versa; and for making new recordings from parts of several other records, or from new material combined with parts of other recordings.

### PUBLIC ADDRESS

The Master unit includes a powerful amplifier as well as a high quality two band radio receiver. It can be used separately from the turntables either for radio reception or for public address work.

### PORTABILITY

The sectionalized construction of this equipment makes it easily portable. Equipment is sold in separate units so that the Master unit may be used either alone or with one or two turntable assemblies according to your needs. Various arrangements of the equipment are possible as illustrated to meet conditions of space or convenience.

**ATTENTION DEALERS** RECORDIO-PRO more than adequately fills every recording need of orchestras, bands, musicians, schools, churches, and radio stations. Yet it is priced very much less than the cost of other quality professional equipment. Write today for full details on how you can profitably sell the vast, professional market with the new RECORDIO-PRO.

Built by Makers of America's Most Versatile Radio

**RECORDIO**

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