

# Radio Retailing

*The Business Magazine of the Radio Industry*

A McGraw-Hill Publication

MARCH, 1928

Get it *Better* with a Grebe

Grebe  
Announces

## Synchrophase A-C Six

Now, you may offer, with every confidence, an electric receiver with unusual qualities of reception. It will bring to your trade supreme satisfaction, and to you quick sales with minimum servicing.

Send for Booklet RR

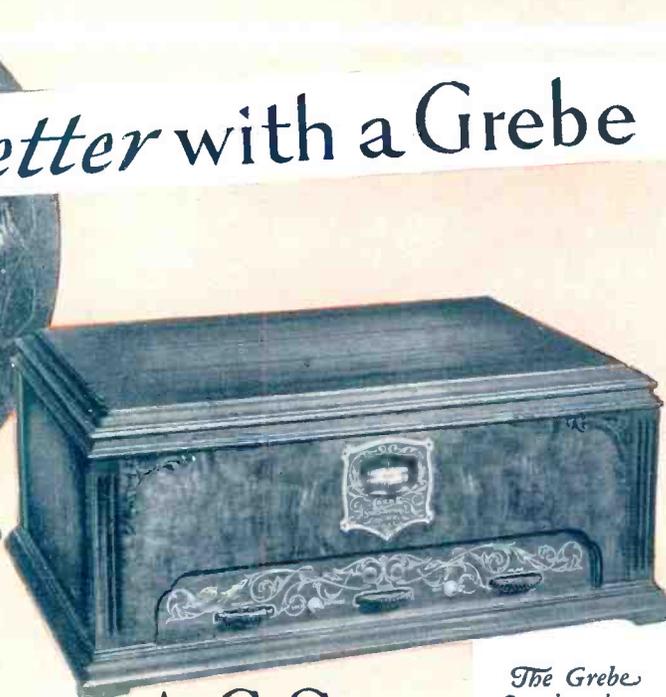
A. H. Grebe & Co., Inc., 109 W. 57th St., N. Y. C.

Western Branch: 443 S. San Pedro St., Los Angeles

Factory: Richmond Hill, N. Y.

**GREBE**  
SYNCHROPHASE  
TRADE MARK REG. U.S. PAT. OFF.

**A-C Six  
RADIO**



*The Grebe  
Synchrophase A-C Six*

is all that you have been hoping for in an A-C (alternating current) set:

*Tone:* clear, true, natural, free from A-C hum.

*Volume:* no distortion.

*Ease of Control.*

*Selectivity:* without loss of tonal fullness.

*No appliances* of any kind to bother with.

*Cabinet* in solid mahogany with burlled walnut panel.

Grebe Synchrophase Seven (without tubes) \$135.00

Grebe Synchrophase Five (without tubes) \$95.00

Grebe Natural Speaker (Illustrated) \$35.00

Grebe Speaker No. 1750 \$17.50



MAKERS OF QUALITY RADIO SINCE 1909

**N** AN IMPORTANT  
ANNOUNCEMENT  
**NOW**

***Farrand***  
**SPEAKERS**

*Especially designed for*  
**CONSOLE CABINET USE**

*Available to*  
*Receiver Manufacturers*  
*Furniture Manufacturers*  
*Radio Jobbers and Dealers*  
*in*  
**TWO Attractively Priced MODELS**

Complete information will  
be furnished upon request.

**FARRAND MANUFACTURING CO., INC.**  
*Metropolitan Building*  
**LONG ISLAND CITY** **New York**

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Merchandising Counsellor

# Radio Retailing

The Business Magazine of the Radio Industry

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## Get Ready for the Trade Show in June

THE week of June 11 is the date. The Hotel Stevens, Chicago, is the place.

The second annual R. M. A. Trade Show is the event.

The radio industry's first annual trade show, sponsored by the Radio Manufacturers' Association, was held last June at Chicago. Attended by more than 18,000 radio retailers, distributors and manufacturers hailing from Maine to California, it was the greatest commercial get-together that has ever been held, not only by the radio industry, but by any American industry.

Its benefits and the advantages of attending are too numerous and well known to need exposition. Everybody who attended the first one, without doubt will attend this year's; and those who missed last year's certainly cannot afford to miss two in succession. You who are reading these lines should make up your minds to be in Chicago during trade show week and make your plans accordingly.

Special trains will be run from many large centers direct to Chicago, and the usual convention rate of one-half fare for the return trip will apply.

As usual, the June issue of *Radio Retailing* will be the Annual Trade Show Number and will endeavor to bring a complete trade show on paper to the thousands of radio men who will be unable to get to Chicago. The advertising plans of radio manufacturers will not be complete unless the June issue of *Radio Retailing* is on their schedule.

And—don't forget—the official R. M. A. daily newspaper to be published at the convention will again be sponsored by *Radio Retailing*.

Member Audit Bureau of Circulations and Associated Business Papers

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### McGRAW-HILL PUBLISHING COMPANY, INC., Tenth Ave. at 36th St., New York, N. Y.

NEW YORK DISTRICT OFFICE, 285 Madison Ave.

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Electrical Merchandising Power    Electric Railway Journal  
Bus Transportation    Engineering News-Record  
Coal Age    Construction Methods  
Copyright, 1928, by McGraw-Hill Publishing Company, Inc.  
Cable Address: "Machinist, N. Y."  
Annual subscription rate is \$2 in United States and Canada.

WASHINGTON, National Press Bldg.  
CHICAGO, 7 South Dearborn St.  
PHILADELPHIA, 1600 Arch St.  
CLEVELAND, Guardian Bldg.  
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LONDON, E. C. 8 Boulevard St.



## The "SELLING POWER" of TONE QUALITY

STROMBERG-CARLSON 1927-1928 sales increase shows that Radio buyers are learning that no radio set is any better than it sounds; no matter how it looks or what it costs. Stromberg-Carlson complete tonal range is what all radio buyers eventually want.

At prices ranging from the \$200 class to the \$1250 class, with phonograph reproduction thrown in, there is nothing more economical to own than a Stromberg-Carlson, and there is nothing finer.

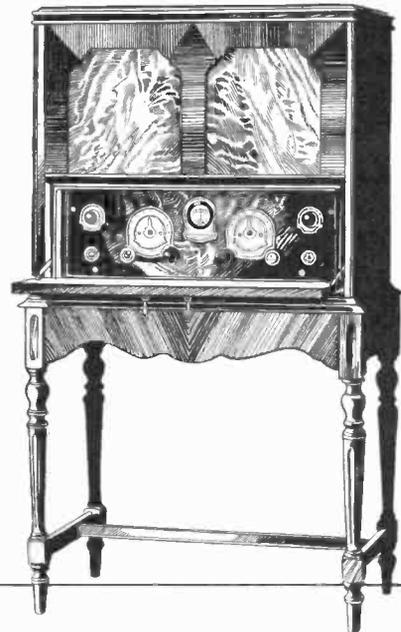
Dealers who turn the most prospects into Stromberg-Carlson sales are those who thoroughly appreciate and can demonstrate these facts.

STROMBERG-CARLSON TELEPHONE MFG. CO.  
ROCHESTER, NEW YORK

The Stromberg-Carlson Hour,  
Tuesday Evenings at 8 o'clock,  
Eastern Standard Time, through  
the NBC and Associated Stations.  
WJZ, WBZ-WBZA,  
KDKA, KYW, WJR, WBAL,  
KWK, WREN and WHAM.

No. 524  
STROMBERG-CARLSON

Price, with Audio-  
Power unit and 8  
R. C. A. tubes — but  
not including Cone  
Speaker, East of Rockies  
\$425; Rockies  
and West \$455;  
Canada \$565.



# Stromberg-Carlson

MAKERS OF VOICE TRANSMISSION AND VOICE RECEPTION APPARATUS FOR MORE THAN THIRTY YEARS

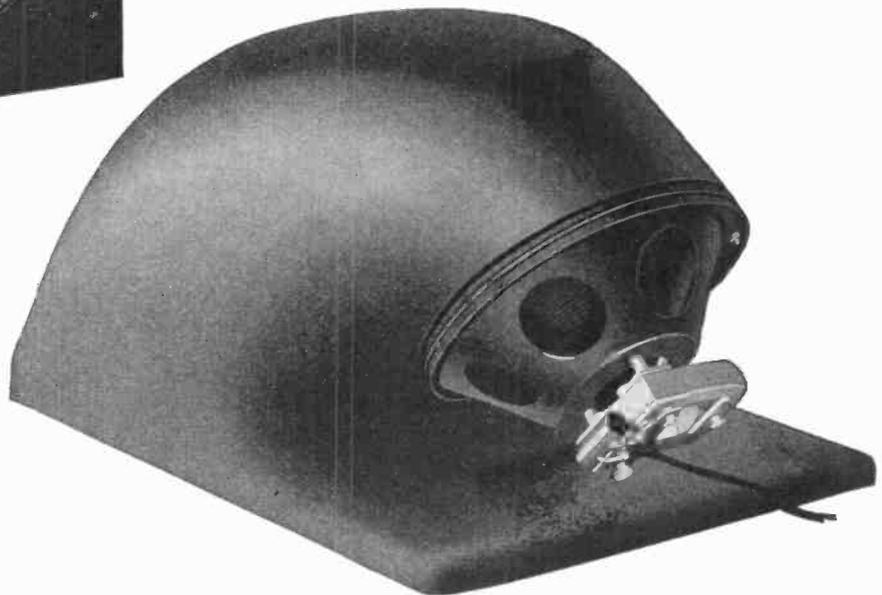
# UTAH SPEAKERS



**Utah  
Type XB  
Price  
\$16.00**

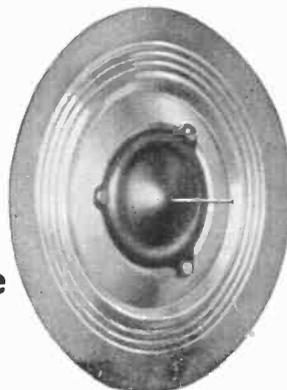
This new, complete line of improved Utah units fulfills requirements of manufacturers who want the supreme in tone value and volume. A style and size for every need.

**UTAH RADIO PRODUCTS CO.**  
1615 S. Michigan Ave., Chicago



**Utah Unit  
Price  
\$5.00**

**Utah  
DeLuxe  
Unit  
\$7.50**



**Utah  
Type XU  
Price  
\$22.00**

UTAH diaphragm showing Patented Tripod Construction Willett—Patent No. 1,388,626

**“Here is an A-C Tube that you can recommend to your customers and know that it will make good”**

*Paul C. Wittman*  
President



**W**E know that every La Salle High Vacuum Radio Tube will give satisfaction—because we build them in our own modern factory. Each La Salle Tube is carefully and conscientiously built and must pass the most rigid tests known in the industry before it can be labeled for shipping.

Our promise of quality is not a matter of words, if you will visit our factory you will see with your own eyes that La Salle High Vacuum Tubes require from two to four times as much factory and laboratory time as is used to build ordinary tubes.

*A. C. Tubes Must Be Right!*

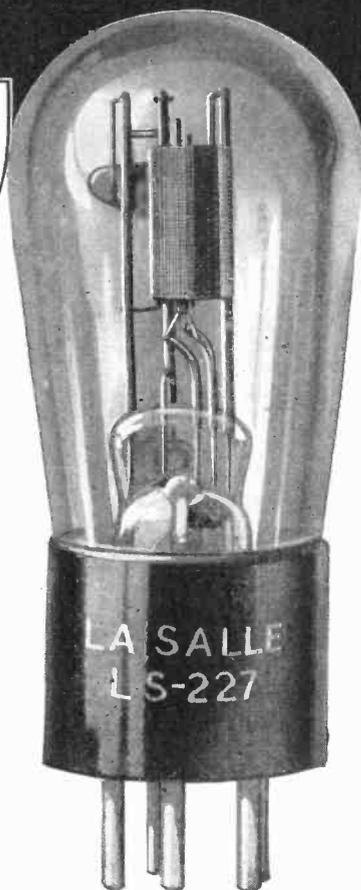
Jobbers and dealers understand the significance of that statement. La Salle A.C. Tubes are right! They have thoroughly and definitely proven themselves. And we back them with a most rigid guarantee. Jobbers who are interested in high quality tubes are invited to write for complete information.

*Manufacturers*

**LA SALLE RADIO CORPORATION**  
149 West Austin Avenue, Chicago, Illinois

*Sole Distributors*

**MATCHLESS ELECTRIC COMPANY**  
145 West Austin Avenue, Chicago, Illinois



Two A.C. Types { L. S. 227  
L. S. 226

*Other Standard Types  
for Battery Power*

**La Salle**  
**HIGH-VACUUM TUBES**



*The Peerless  
"GOTHIC"*

THE famous *Peerless* Reproducer that took the radio market by storm. Today, it is by far the industry's fastest selling independent radio reproducer—the standard of comparison.

The *Peerless* principle gets the low notes, gives amazing fidelity, range and volume. In a beautiful mahogany cabinet of classic Gothic design. List \$35.

Good jobbers everywhere sell the *Peerless* Reproducer. It sells fast, brings in the first buyer's friends, and stays sold!

And it sells the year round—production was 5000 units behind orders on Feb. 25, 1928—when some folks allege the season is over!

THIS *Peerless*-shaped bronze medallion, scarcely bigger than your thumb-nail, attached to a radio console or separate cabinet identifies it as being equipped with the built-in-*Peerless* Reproducer.

Whatever the trade name on the radio—or on the cabinet, this little bronze symbol means that while other speakers could be had for much less, this maker prefers to pay for top quality in his radio reproducer.



*The Peerless Built-In Model No. 7-B*

It suggests the maker's belief that his radio or his cabinet is of a quality that *deserves* the best in speaker performance.

*Peerless* Reproducer keeps quality company. Makers of radio cabinets cannot afford to pay the *Peerless* price unless their own product will back up *Peerless* performance.

The radio or cabinet that wears the little *Peerless* Medallion is a quality product. It is safe merchandise to buy—and safe to sell!

Made by THE UNITED RADIO CORPORATION, Rochester, N. Y.

# Peerless REPRODUCER

UR-122

# What radio will you be handling five years from now?



Many names have been born since the advent of radio. Some have grown to importance. And of those that have attained prominence, some already are on the decline or have passed entirely from the picture.

What radio will you be handling five years from now? Ten years? Fifteen years? . . . If you are a jobber, or if you are a dealer, this is something for you to think seriously about. Radio is here to stay. You, too, are in business to stay and prosper. Are you today laying a solid groundwork in radio on which you can build for the future?

The best answer to this question will be found on the name plates of the radios in your stock. Do they speak *unconditionally* as a guarantee of permanence?

Today more than ever before, the trade is looking to Stewart-Warner as the voice of authority in radio. Jobbers and dealers alike recognize that Stewart-Warner is in the business to stay. They know that the Stewart-Warner institution can be depended upon not only to keep *abreast*, but in *advance* of radio trends.

These same jobbers and dealers have well-grounded confidence in the fact that Stewart-Warner will be here

five, ten, fifteen years hence. And they also know that Stewart-Warner *permanence*, Stewart-Warner *leadership* and Stewart-Warner *stability* are factors on which they can safely build, not only for *today's* profits but for the years to come.

What greater assurance of permanence could you ask than the long-established Stewart-Warner background—twenty years of manufacturing leadership? What greater assurance than the goodwill that is summed up in the name Stewart-Warner? Than the fifty million dollars of Stewart-Warner resources?

And this fact goes without saying: Stewart-Warner can be looked to with assurance to lead the way in aggressive radio advertising and merchandising. For twenty years, Stewart-Warner has stood forth pre-eminent in the advertising and merchandising of automotive products. And during the past four years the same progressive Stewart-Warner tendencies have been unmistakably impressed in the field of radio.

Today the Stewart-Warner Radio line comprises a complete, distinctive array of models—both A. C. and D. C.—correctly priced and representing the highest achievement in radio performance.

We want more dealers—good dealers—NOW. Stewart-Warner Radio production has been increased, and new opportunities for dealers are open in many territories. Write for details of our proposition. Don't wait, or you may be too late. Write or wire today.

STEWART-WARNER SPEEDOMETER COR'N  
CHICAGO - U. S. A.

A. C. is here! Stewart-Warner A. C. ! You've been waiting for A. C. ! Now the time is ripe to "cash in"! Go out and sell the people in *your* community who are waiting to *buy*! 1928 is destined to be a big radio year!

*20 years in business*  
*50 million dollars in resources*  
*4th successful radio year*

# STEWART- WARNER

*The voice of authority in radio*

# Eye Value is as Essential as Performance -- in Present Day Radio Selling

**W**ITH the perfection of the Electric Radio, public demand is for design that has a definite meaning in the decorative plan of the home—something permanent—concealing all the mechanical aspects of radio.

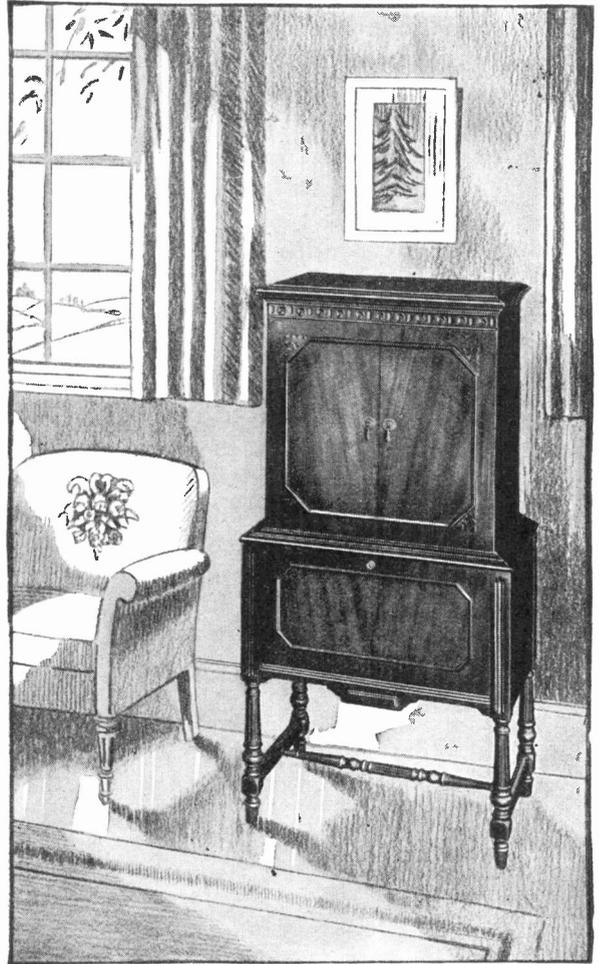
## FRESHMAN EQUAPHASE *ELECTRIC* RADIOS

fulfill every current demand. The ever increasing sales of Authorized Freshman Dealers testify to that.

In scientific exactness and efficiency, the Equaphase Radio circuit is in a class by itself—simple to operate yet accurate and sensitive to a fine point of precision—*minimizing the necessity of service.*

A variety of cabinet designs adequately meet the requirements of present day home decoration.

Freshman Electric Radios are sold direct to Authorized Dealers—it will pay you to investigate our dealer franchise.



Model G-4

Freshman Equaphase Electric Radio paneled in genuine mahogany, complete—ready to operate including the new RCA, AC tubes.

**\$225<sup>00</sup>** No **ACIDS  
BATTERIES  
WATER  
TROUBLE**

*Manufactured by*

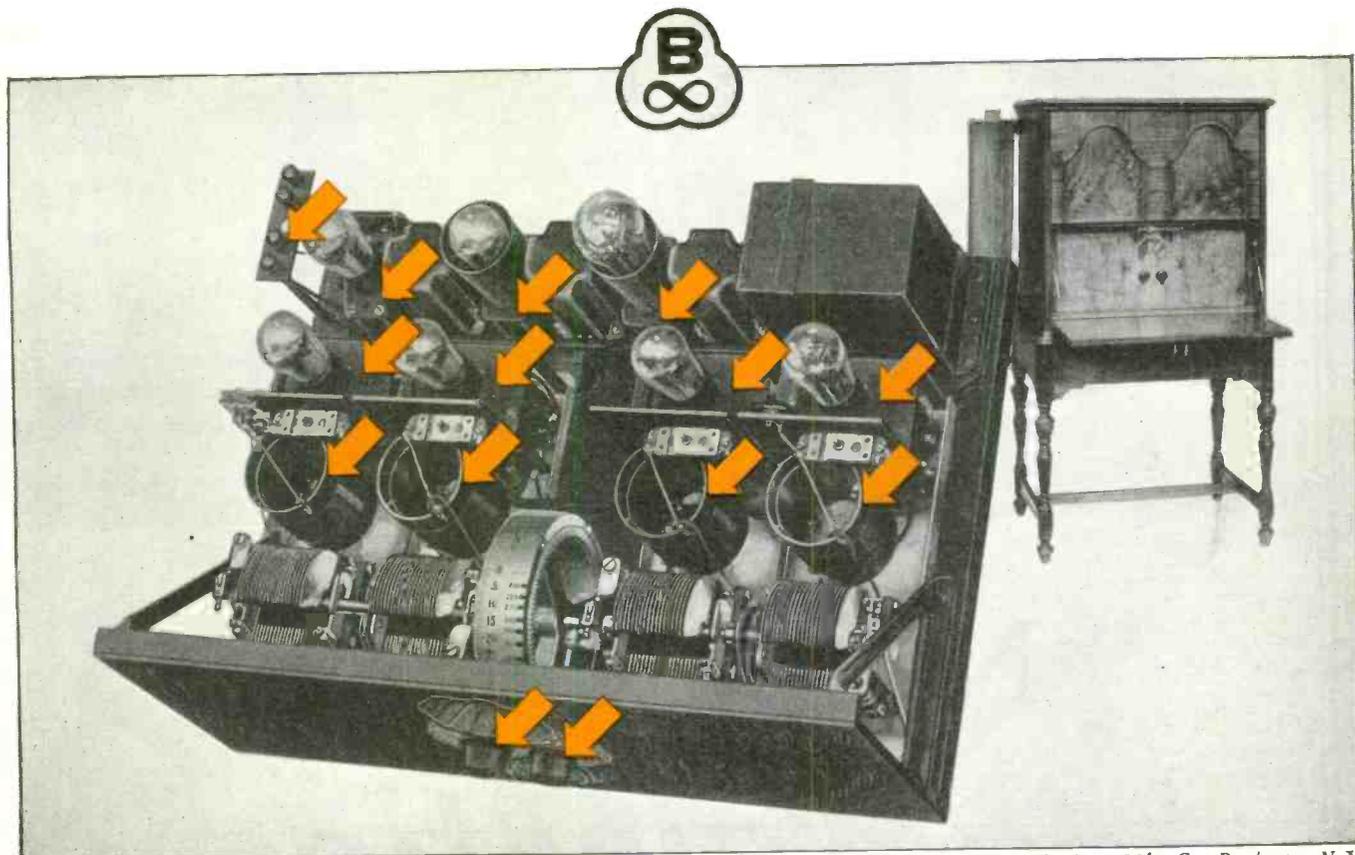
**CHAS. FRESHMAN CO., Inc.**

NEW YORK

CHICAGO

LOS ANGELES

# FRESHMAN ELECTRIC RADIOS



*Stromberg-Carlson receiver with Bakelite Materials indicated by arrows. Made by Stromberg-Carlson Telephone Mfg. Co., Rochester, N. Y.*

## Stromberg-Carlson—famed for tonal quality and range, is insulated with Bakelite Materials

**I**N quality receivers built to meet the demands of an exacting public, every precaution must be taken to make sure that quality reception will not diminish with time or use. For this reason radio receivers such as the Stromberg-Carlson are invariably insulated with Bakelite Materials.

The Stromberg-Carlson chassis pictured above gives some idea of the extent to which Bakelite Laminated insulation is used, and the important part which it plays in the construc-

tion of this fine instrument. As Bakelite Materials are beautiful as well as practical, they are also used on the exterior of this receiver. For example lustrous Bakelite Molded is used for tuning and amplifying knobs.

The fact that the leading makers of radio receivers place such reliance upon Bakelite Materials indicates how important it is for dealers to make sure that Bakelite Materials are used in the sets and parts which they sell.

### BAKELITE CORPORATION

247 Park Avenue, New York, N. Y. Chicago Office: 635 West 22nd Street  
 BAKELITE CORPORATION OF CANADA, LTD., 163 Dufferin Street, Toronto, Ont.

# BAKELITE

REGISTERED

U. S. PAT. OFF.

THE MATERIAL OF  A THOUSAND USES

"The registered Trade Mark and Symbol shown above may be used only on products made from materials manufactured by Bakelite Corporation. Under the capital "B" is the numerical sign for infinity, or unlimited quantity. It symbolizes the infinite number of present and future uses of Bakelite Corporation's products."



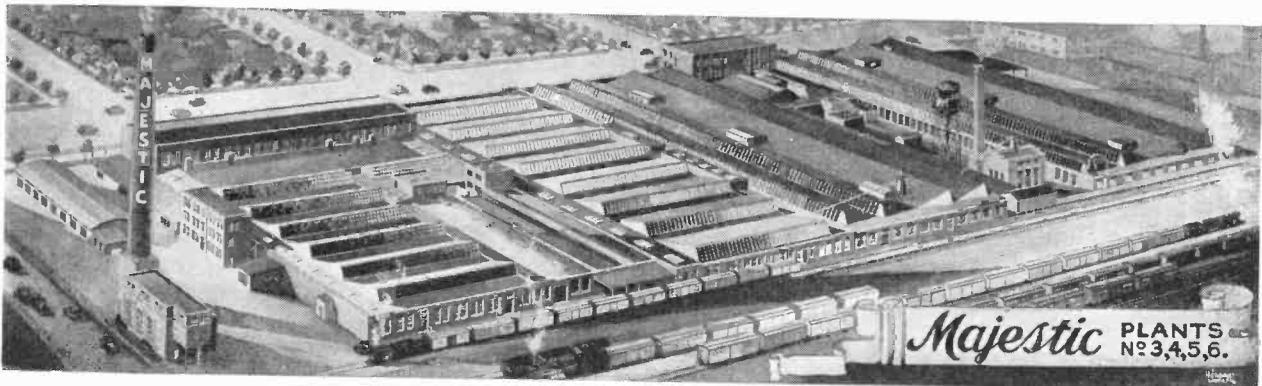
Majestic Plants Nos. 1 and 2

Now, Six Great  
*Majestic*

Manufacturing Plants  
 are preparing new and  
 greater values in radio for  
 dealers and the public.

**GRIGSBY-GRUNOW-HINDS CO.**

General Offices at 4540 Armitage Ave., Chicago



Formerly the Yellow Cab Mfg. Plants



UX-226  
 Archatron UX-226. AC  
 Filament Voltage 1.5  
 volts.  
 AC Filament Current 1.05  
 amperes. DC Plate Volt-  
 age.  
 90-180 volts maximum.  
 Price \$3.00.

An increasing number of manufac-  
 turers are obtaining outstanding im-  
 provement in their receiving sets by  
 equipping them with Archatrons.

*Now*-we've put the new  
 AC'S in Archatrons

UY-227  
 Archatron UY-227. AC  
 Heater Voltage 2.5 volts.  
 AC Heater Current 1.75  
 amperes. DC Plate Voltage.  
 45-90 volts. Price \$6.00

Having the same high grade character-  
 istics which have won for Archatrons  
 such a prominent place in the estimation  
 of both dealers and radio owners, four  
 new tubes take their place in the  
 Archatron Family.

For longer life, uniformity, general all-  
 around satisfaction and a guarantee  
 that backs up every dollar you or your  
 customer invests in them, you can rely  
 on the new UX-226  
 and UY-227 to the  
 limit. That goes for  
 the new UX-280, Full  
 Wave Rectifier and the  
 UX-281, Half Wave  
 Rectifier also.

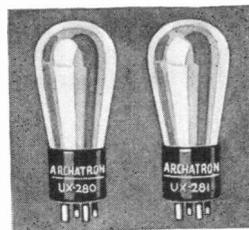
Dealers who have en-

joyed the profits of Archatron superi-  
 ority and volume business during the  
 1927-1928 season will lose no time in  
 stocking these four new Archatrons. A  
 new tube, if any Archatron does not ful-  
 fill the most optimistic expectations—  
 everytime—always—no questions asked.  
 That's the Archatron service based on  
 the performance which may be fully ex-  
 pected of every Archatron.

Send for full information about these  
 strongly endorsed,  
 nationally advertised  
 tubes, manufactured  
 under the Arch prin-  
 ciple of construction, the  
 tubes of the fa-  
 mous 4000 hour  
 test.

**Distributors**

Recent changes in our sales  
 organization leave a few  
 choice territories open.  
 Write today.



UX-280  
 Price \$5.00  
 UX-281  
 Price \$7.50

The  
 Ken-Rad  
 Corporation, Inc.,  
 Owensboro, Ky.

You may send as  
 checked

- Full information re Archatrons
  - Trial order consisting of.....
- (State tube numbers wanted)

The Ken-Rad Corporation, Inc.  
 Owensboro, Ky.

Name .....

Address .....

We are  Jobbers,  Manufacturers,  Dealers.

for A. C. too  
**Gold Seal**  
**always keeps**  
**in front**

Customers know they can count on Gold Seal — to get the finest results with the latest A. C. sets the answer is Gold Seal just as it has been with the older sets.

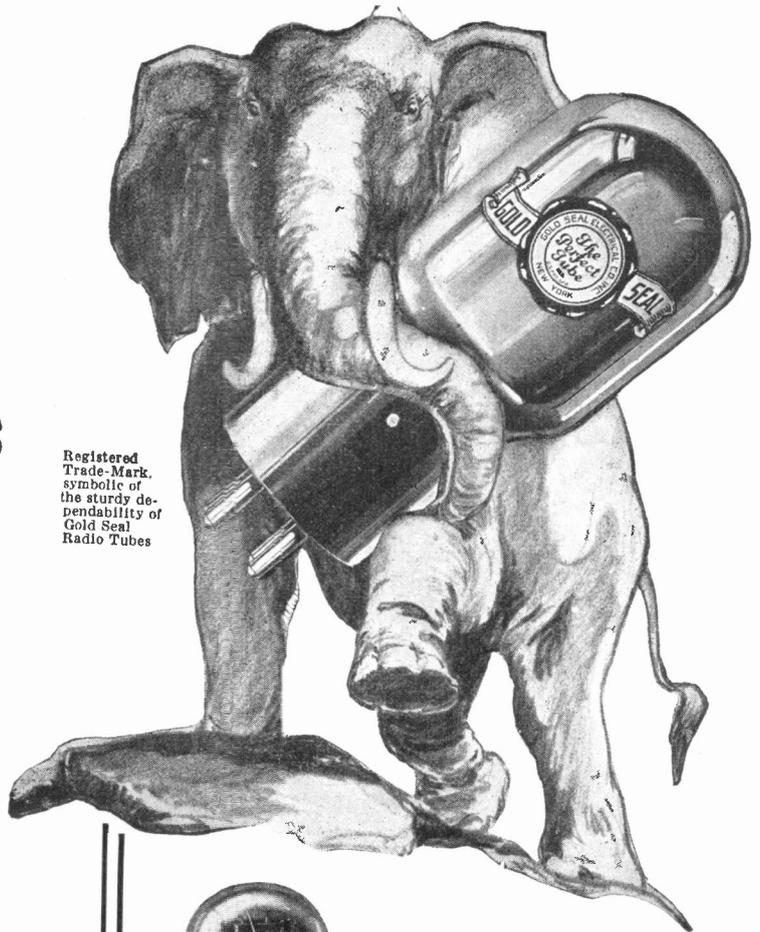
Gold Seal keeps abreast in *everything* that builds success for the jobber and dealer — with National and local Advertising, with the Gold Seal Square Deal policy in all dealings, and with every up-to-date aid for retail selling.

*It will pay you to write  
 for particulars*

**GOLD SEAL ELECTRICAL CO.**  
 250 Park Ave., New York

*All  
 Standard  
 Types*

**Gold Seal**  
**Radio Tubes**



Registered Trade-Mark, symbolic of the sturdy dependability of Gold Seal Radio Tubes



**GSX 281**  
 Half Wave Rectifier  
 List Price \$7.50



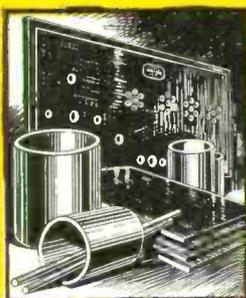
**GSX 280**  
 Full Wave Rectifier  
 List Price \$5.00



**GSX 226**  
 For amplification and  
 Audio Frequency  
 List Price \$3.00



**GSY 227**  
 For detection  
 and amplifier  
 heater type  
 List Price \$6.00



Phenolite is made in six standard grades—each adapted to a specific use, and each of definite character and unvarying quality, made in accordance with our own scientifically exact formulae.

## Perhaps you have yet to find a material which exactly meets your requirements

SUCH has been the case with more than one manufacturer who put up with "the best there was" until he availed himself of the Experimental Department of the National Vulcanized Fibre Company.

As an instance of this department's service—we have recently developed a punching stock which will not "cold flow" under pressure, has a high tensile and dielectric strength, is beautiful to look upon and economical to use. If your product would be improved by an insulator that combines all those advantages—Phenolite is the name!

# PHENOLITE

Reg. U.S. Pat. Off.

## Laminated BAKELITE

SHEETS : RODS : TUBES : SPECIAL SHAPES



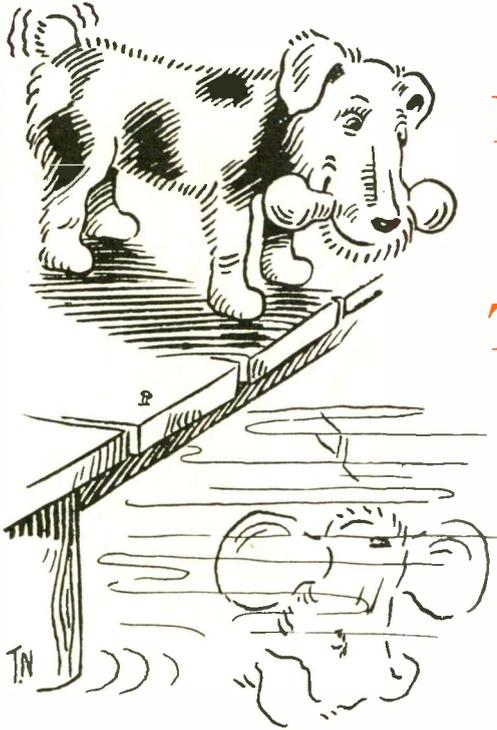
**NATIONAL VULCANIZED FIBRE CO., Wilmington, Del., U. S. A.**

Makers of laminated insulation since 1873

Offices in Principal Cities

???

# ★ A DOG A BONE *and the* A~C BEWILDERMENT?



*You Probably Don't Know  
These Startling Facts  
About  
The All-Electric Situation*

Let's face the facts

—even at the risk of making somebody mad. Cold and critical thinking never hurts the pocketbook—and right now we'll wager, sound second thought will save the legs of a lot of dealers who are about to enter the annual race for the pot of gold at the rainbow's end.

Fact one is this: The public is doing a lot of talking about "all-electric operation". That's no secret. But what the public means by "all-electric" is a whale of a question.

This much though we all know—the public is a little sick of radio revolutions—and footing the experimental bill. We are dealing with the same public that demands

?

satisfaction in its automobiles—its cigars—its shoes—its vacuum cleaners. Deliver satisfaction—and they stay with you. Disappoint them—and watch the crowds sail by.

Radio is no exception. For any new or old item of merchandise that gives satisfaction there will always be a tremendous market.

*Give satisfaction and the public doesn't care whether the power comes A.C. or D.C. or XYZ.*

Point two is this—6,500,000 D.C. sets are not going to be thrown out over night—Sure—New sets will gradually replace old sets. But 6,500,000 of anything is a man's size market that's going to last for a long, long time.

We hope we've started you thinking. We did—and now we're looking at the world through rose-colored glasses.

Mr. Radio Dealer, we can show you the biggest opportunity you've ever had. It's plastered with dollar signs. If you don't see it you've only yourself to blame. We've only hinted at part of the story—told you just enough frankly to let you know that we've stepped square into the situation—and we've developed a solution that will amaze you.

Let us know that you are open to conviction—and we'll meet you more than half way. The burden of proof is on us. Send the coupon—or write on your letterhead—and we'll give you a study of the present radio situation—a real working plan—bearing the okeh of some of the best merchandising minds in Radio!



*We've been thinking lately about that old fable of a dog and a bone—you remember—looking into a pool of water, he thought he saw another dog with a bigger, more meaty bone. So he jumped in to seize it, only to find that there was no dog or bone at all, and that meanwhile his real bone was lost forever.*



# STEWART INDUSTRIES INC.

125 North Peoria Street  
CHICAGO

Gentlemen: Yes, I want the facts disclosed by your analysis.

Your Name.....

Firm.....

Street Address.....

City.....



# Here's what will make your bad season *good* and your good season *better!*

## Carryola Portable Phonographs and Carryola Pick-ups are building *Year- round Profits* for Radio Dealers



### Carryola Master

A fine phonograph—portable—with features usually found only on expensive cabinet models. Audak Ultra (phonic) reproducer—curved, throwback tone arm of Bakelite—tone chamber of improved design, fitted with new-type metal grill, carrying case for 15 records. Motor designed, built and backed by the Carryola Company of America—the only portable manufacturers to make their own motors. The Master is furnished in black, brown, blue, green or red Fabrikoid with embossing and air brushing to harmonize—handsome nickeled fittings.

**\$25.00 LIST**  
East of the Rockies



### Carryola Lassie

Flat-type portable, furnished in black, blue or brown Fabrikoid. Both case and record album are embossed and air-brushed. Latest design curved, throwback, die-cast tone arm. Equipped with Audak reproducer. This Carryola model is the only portable phonograph in its price class that has all these exclusive quality features.

**\$15.00 LIST**  
East of the Rockies

**T**HIS next Summer is going to see Carryola Portables the fastest-selling item in a lot of radio stores. And the Carryola Electric Pick-up and Porto Pick-up are just what you want to follow up every radio sale you've made this past winter.

There's a wonderful opportunity for profit in these items—year-round profits, unaffected by season.

And remember this: we're not going to let it go at giving you the products to sell. We're going to back you up with a big national advertising campaign in *The Saturday Evening Post* and *Liberty*. We're going to tell the world about the Carryola Master, the Carryola Lassie, the Carryola Electric Pick-up and the Porto Pick-up. We're going to make Carryola—already the fastest-selling portable phonograph—a still *more* profitable line for you to carry.

Write or wire us today for name of nearest Carryola distributor and details of our selling plan.

THE CARRYOLA COMPANY OF AMERICA  
647 Clinton Street · Milwaukee, Wisconsin

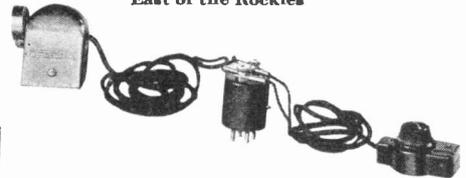
**CARRYOLA**  
beyond this you buy furniture

World's Largest Makers of Portable Phonographs

### Carryola Electric Pick-Up

The pick-up itself replaces the reproducer of the phonograph. Then by simply removing the detector tube of the radio set and inserting adaptor plug in its place, records may be played on the phonograph and electrically amplified. Volume may be controlled by merely turning the volume control knob. Packed in an attractive and colorful counter display box.

**\$10.50 LIST**  
East of the Rockies



### Carryola Porto Pick-Up

To attach, simply replace the detector tube of radio set with adaptor plug. That's all. Play records in usual way—hear them from the loud speaker with all the added volume and richness of tone that is characteristic of electric reproduction.

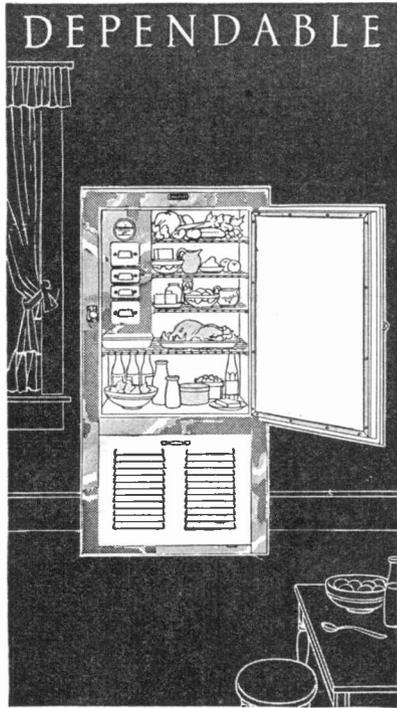
The pick-up or electric reproducer is attached to a curved throw-back arm which makes it easy to change needles. Volume control conveniently located on motor board enables operator to regulate volume anywhere within limits of receiving set and speaker. Box is beautifully finished in neat, durable Fabrikoid with nickel-plated fittings.

**\$23.50 LIST**  
East of the Rockies

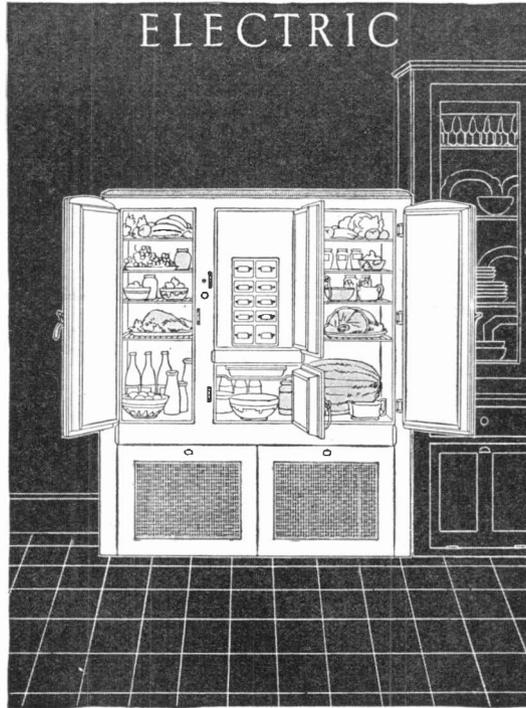
This nameplate identifies Carryola products. It represents the guarantee of the world's largest manufacturer of portable phonographs.



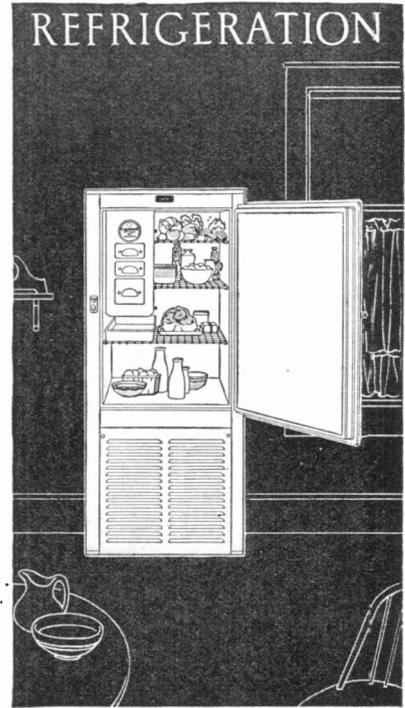
# Copeland



Model N-7-P-7—7 cu. ft. food storage; 11½ sq. ft. shelf space; 162 ice cubes. 10.6 lbs. of ice. Porcelain interior



Color De Luxe Model 20—20 cu. ft. food storage; 30 sq. ft. shelf space; 378 ice cubes. 24.5 lbs. of ice. All-Porcelain. 6 optional colors



Model N-5—5 cu. ft. food storage; 6¼ sq. ft. shelf space; 108 ice cubes. 6.95 lbs. of ice. Lacquer finish on steel

## Newer, larger line—optional colors—greater sales

With the addition of De Luxe models in *six optional color combinations*, the Copeland line of dependable electric refrigeration offers still greater opportunities for profit!    32 models in all — including separate units for installation in present ice boxes; complete electric refrigerators for every type and size of home; multiple installations for apartment houses; and also commercial units. The new Color-De Luxe models, electrically lighted and equipped with cathedral-top doors and satin-finished special hardware, are the last word in luxurious refrigeration. They are available in small cabinets as well as large; and some of them are capable of 378 ice cubes, or 24.5 pounds of ice at one freezing!    Don't pass up this chance to learn more about Copeland and the profit-making possibilities of the Copeland line. The information is free and does not obligate you. Write or wire us today, or use the attached coupon.

..... MAIL THIS COUPON .....

Copeland, 630 Lycaste Ave., Detroit, Mich. *Please send without obligation your new booklet on Electric Refrigeration.*

Name \_\_\_\_\_ Address \_\_\_\_\_

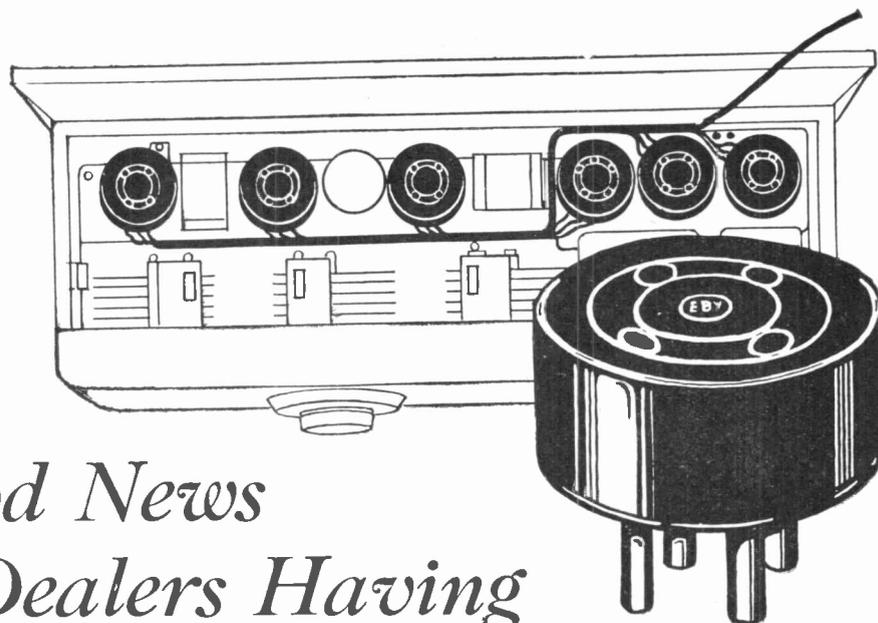
City \_\_\_\_\_ State \_\_\_\_\_

RR 3

CABINET BY  
**Radio  
master**  
BAY CITY, MICH.



*Another Creation of  
Character by Radio Master  
Adaptable for Electric or  
Battery sets*



## *Good News to Dealers Having Stocks of Battery Operated Sets!*

Dealers can make their stocks of battery operated sets live merchandise by offering their customers the new SENTINEL Model 32 A-B and C supply, together with the new EBY Adaptor Harness. Model 32 is specially designed for use with the EBY Harness and the combination makes an efficient and compact A. C. receiver. List price of SENTINEL No. 32 with tube is \$32.00.

The EBY Harness is also a live number to sell present owners of battery operated sets. It enables them to protect their investment in sets and power supplies—at the same time getting A. C. operation.

### *Features of the EBY A.C. Adaptor Harness*

No rewiring required on standard sets—easy hook-up of only eight leads—improved reception without change of set characteristics—designed for use with standard tubes and transformers—only ten minutes to do the job—are some of the unusual features of the EBY A. C. Adaptor Harness.

### *Only Two Universal Models*

You need not carry a large stock, as there are only two universal models—

- EBY A.C. Adaptor Harness for Five Tube Sets \$9.00 List
- EBY A.C. Adaptor Harness for Six Tube Sets \$10.00 List

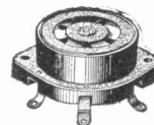
*Send for a copy of our instruction booklet to get the complete story about the EBY A.C. Adaptor Harness. You can make a good profit with this Harness in more ways than one.*



**The H. H. EBY MFG. CO., Inc.**

4710 Stenton Ave., Philadelphia

*Makers of EBY Binding Posts and Sockets*



"Stand  by — —  
for WESTON  
Announcement

READY for Immediate Delivery —  
A New Set Tester for A. C. and D. C. Receivers

WHATEVER may be your business interest in radio—manufacturer, experimenter, professional set builder, dealer or service man—this Weston announcement contains a message of personal application for your benefit and profit. The entire fraternity of radio interests has awaited this Weston development.

This Weston Model 537 A. C.—D. C. Radio Set Tester is a complete outfit, most ingeniously designed and fully adaptable to the testing requirements of every set made, whether operated by direct current from batteries or battery substitutes, or by alternating current from socket power.



FORTIETH  
ANNIVERSARY

MODEL  
537

This new instrument provides for every required test in connection with the installation and proper maintenance of radio receivers. It will measure the various currents and voltages employed anywhere in the set, including those at the tube sockets. All tests can be made by using the regular voltages normally supplied to the set by its batteries or socket power without the necessity of changing connections. Nor is any auxiliary power required.

The set is provided with two instruments—an A. C. voltmeter and a D. C. volt-milliammeter. An ingenious system of switches and binding posts provides for automatically connecting the instruments to the circuits being tested. The A. C. voltmeter has three ranges—150/8/4 volts—the lower ranges being required for measuring the filament voltages of tubes, and the highest range is provided for measuring the line voltage. The D. C. volt-milliammeter has four voltage ranges—600, 300, 60 and 8 volts and two current ranges—150 and 30 milliamperes. All voltage ranges have a resistance of 1000 ohms per volt. The set is furnished with the necessary socket adaptors and a complete instruction book.

WESTON ELECTRICAL INSTRUMENT  
CORPORATION

581 Frelinghuysen Avenue : Newark, N. J.

**Weston**  
PIONEERS  
SINCE 1888  
**INSTRUMENTS**

# NAMEPLATES

*make a name for your product*

**B**ECAUSE they are the symbol by which your product is identified by everyone who sees it or uses it. NOVAR Transfer Nameplates stay on your product to carry your name wherever your product goes. They are the final link in your advertising . . . often the salesmen that bring the repeat orders.

NOVAR Transfer Nameplates are made in full color and are easily applied to wood, glass, metal or other substances. They are inexpensive, distinct and durable. Use the coupon below to obtain samples that you yourself may try. NOVAR Transfer Nameplates are manufactured by Palm, Fechteler & Co., the largest decalcomanie manufacturing organization in the world.



This Novar Transfer is helping to "make a name" for "RCA"

*Some of the other  
Radio Manufacturers  
we serve:*

- Sonora
- Columbia
- Garod
- Freed-Eisemann
- Federal Radio
- All-American
- Bosch

# NOVAR

## Transfer Nameplates

**Samples free!**

**PALM, FECHTELER & CO.**  
67 Fifth Avenue, New York

Send me some samples of NOVAR Transfer Nameplates  
without cost or obligation.

Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Here is Radio You Can Sell  
Profitably and Quickly—  
Radio That Once Sold  
Stays Sold

# The New Standardyne A.C. 28 All Electric—One Dial—Six Tubes

Retail Price  
Less Tubes  
But Including  
Rectifier Tube

## \$99<sup>50</sup>

Think of it! For actually less than \$100.00 you can offer your customers a mechanically perfect All Electric radio receiver *complete with rectifier tube*. But low price is not its greatest feature. The Standardyne A.C. 28 is a *real* receiver. It tunes stations sharp and clear, brings in distance with volume and clarity. Operates direct from the electric light current without the use of eliminators, acids or other makeshifts.

Completely contained in a rich hand-rubbed mahogany finish cabinet it meets the demand for good looks as well as fine performance.

Wire or write for one of these sets today on our trial plan offer.

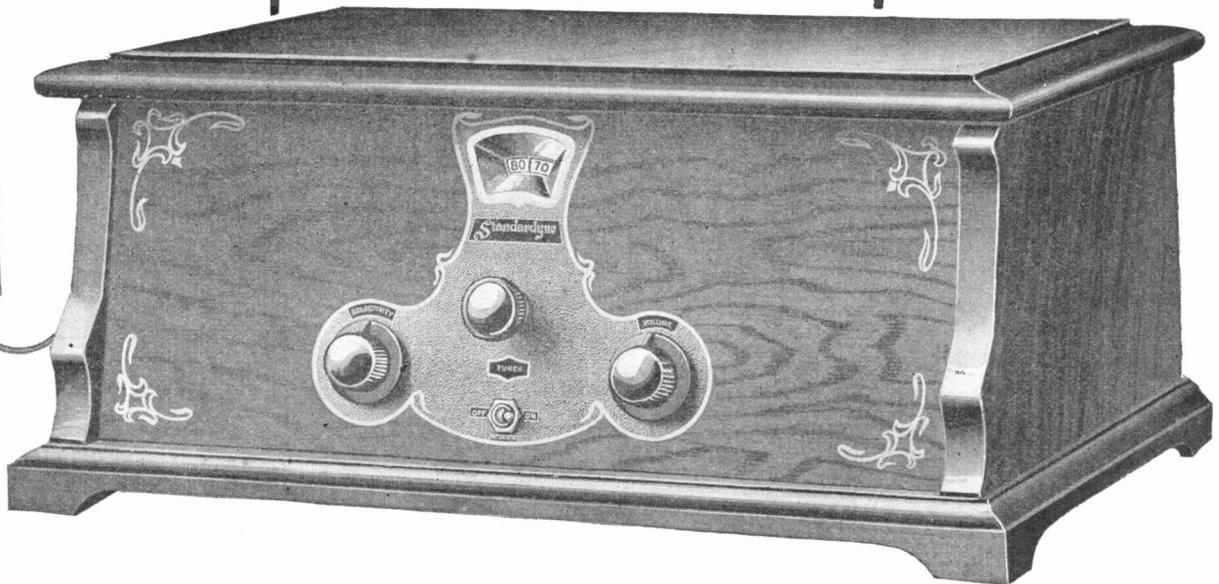
*The* MANUFACTURED BY  
**Standard RADIO CORPORATION**  
WORCESTER, MASS.  
~ USA. ~

BEN FINK, President

Please send me details of your trial plan. Of course, there is no obligation on my part.

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

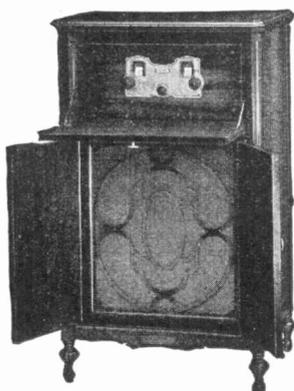
Just Plug in



It speeds the sale to say  
"Cabinet Work by Adler-Royal."

# ADLER-ROYAL

RADIO  
CABINETS



Model 107 open. Showing Fada installed. The larger cut shows the exquisite diamond-matched walnut panels, with burl walnut overlay. This cabinet accommodates the Fada cone speaker



Model 107



Model 114

A particularly beautiful highboy type console, with choice burl walnut panels and maple overlay. Drawer construction to receive the set. Arm rest. Compartment above the set adaptable to batteries, power pack or loud speaker.

## for FADA A. C. Sets

You will gain sales and prestige every day with these and other fast-selling Adler-Royal cabinets on your display floor. Fashioned especially to accommodate the new A. C. sets. Radio preference crystallizes remarkably fast. These are **SELLING NOW**. Write or wire today for particulars.

**ADLER**  
Manufacturing Co.  
*Incorporated*  
LOUISVILLE  KENTUCKY

Your nearest Fada Distributor can supply you or write to us.



*Every Dudlo coil is individually inspected and tested for specified requirements by highly trained employees before packing.*

*Every material must pass a laboratory test before it is approved for Dudlo magnet wire and coils.*

The thorough system of testing and inspection employed in every department of the Dudlo factories safeguards the quality of *your* product as well as our own.

No industry is more exacting in its requirements than radio. Every coil must be perfect in every respect—or your receiving set, your power unit, your transformer, may be defective and you and your dealers will have to pay the penalty by standing the grief of returned goods, replacements, repairs, loss



of reputation and shrinking sales.

Why take a chance? Why not play safe by following the lead of the most successful radio manufacturers by making Dudlo a department of your business? Use our engineering and manufacturing facilities freely—they are dependable.

# DUDLO

Magnet Wire and Windings

DUDLO MANUFACTURING COMPANY, FORT WAYNE, INDIANA

Division of THE GENERAL CABLE CORPORATION

160 NORTH LA SALLE STREET  
CHICAGO, ILL.

56 EARL STREET  
NEWARK, N. J.

4153 BINGHAM AVE.  
ST. LOUIS, MO.

274 BRANNAN ST.  
SAN FRANCISCO, CALIFORNIA

THE AMRAD MERSHON CONDENSER

# 105,000 MERSHON CONDENSERS

WERE shipped from our plant in the last season. Just ONE was returned on account of electrical defects. One—out of more than a hundred thousand!

Mershon Condensers are easily adapted to any radio power circuit. Unequaled as a replacement unit for punctured paper condensers in "B" eliminators and power packs. Not affected by changes in temperature and weather.

### *Self Healing In Case of Puncture*

Only five standard sizes necessary to meet any possible circuit requirement.

New low prices backed by aggressive nationwide advertising and publicity make the Mershon Condenser a most profitable article. Put up in attractive cartons and distributed by wholesalers of integrity throughout the United States.



THE AMRAD  
CORP.  
Medford Hillside,  
Mass.

Makers of the  
Amrad Mershon  
Condenser

# MERSHON CONDENSER

AMRAD

Send for our  
special  
proposition  
for live  
dealers.  
Address  
Sales Desk  
29

# Qua

Price means nothing by itself...no radio store can make good permanently with cheap merchandise...there are far more people trading up than trading down...*sell something when you sell something!*

# KOLSTER

---

Enjoy the KOLSTER FAMOUS COMPOSERS HOUR  
over the nation-wide Columbia Broadcasting System.  
*Every Wednesday 9 to 10 P. M. Eastern Time*

# lity!

When 1928 is over Kolster dealers will have a story to tell about the success of quality radio that will make others wish they too had foreseen the trend of the industry. Use the coupon and let us tell you more about it.



# KOLSTER

FEDERAL-BRANDES, Inc.  
200 MT. PLEASANT AVENUE  
NEWARK, N. J.

© 1928, Federal-Brandes, Inc.

Please let me know if there is room for another Kolster dealer in my locality.

Name .....

Street .....

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

55

*In 1927  
You Sold Radio  
by uttering the  
Magic Words  
"ELECTRIC  
SET"*

*For  
1928  
You'll have to  
Sell  
Quality*

**Kellogg**  
**A-C Radio**

—has the Quality that sells!

Tone quality! Furniture quality! Mechanical quality, assured by being built complete in the Kellogg plant and equipped with Kellogg's own A-C tubes, proved by three years' success.

*We will be able to supply new territories  
this year. Yours may be open. WRITE!*

**KELLOGG SWITCHBOARD & SUPPLY CO.**

Dept. 54-73, Chicago

RADIO IS BETTER WITH BATTERY POWER

# FLAT cells make the Layerbilt last longest of all EVEREADYS

UNTIL the Eveready Layerbilt "B" Battery was invented, the one-and-one-half-volt cylindrical flashlight dry cell was the unit of construction. Fifteen of these cells connected in series and sealed in a package make a 22½-volt "B" battery, and 30 of them make a 45-volt battery.

The only way these cylindrical cells can be assembled in a box is to stand them side by side, connecting them electrically by soldered wires. This assembly unavoidably leaves open spaces between the cells. To hold the cells in place and prevent breaking the connecting wires, the spaces customarily are filled with pitch. Fully one-half of the cubic contents of such a battery is waste space.

To avoid these disadvantages of the cylindrical cell type of construction the Eveready Layerbilt was designed. In place of the round cell we invented and perfected a square-cornered, flat cell. Such cells packed tightly together make the Eveready Layerbilt solid as a brick, no wires to break. Moreover, the flat cells are



This is the Eveready Layerbilt, the unique "B" battery that contains no waste space or materials between the cells; the longest lasting of all Evereadys.

For modern sets, use the Eveready Layerbilt, which contains these highly efficient, patented cells. This is the longest-lasting, most economical and convenient Eveready "B" Battery ever produced. Like all other Eveready Radio Batteries, it provides Battery Power, which is pure Direct Current, silent, uniform, the only kind of current that gets the best out of a radio set. The remarkable Eveready invention of the flat dry cell enables the Eveready Layerbilt to give you Battery Power for the longest time. When buying batteries, insist on the Eveready Layerbilt.

more efficient—active materials produce more current when in the flat shape than the same quantity of materials produce in a cylindrical cell.

NATIONAL CARBON COMPANY, INC.  
New York  San Francisco

Unit of Union Carbide and Carbon Corporation

Tuesday night is Eveready Hour Night  
East of the Rockies  
9 P. M., Eastern Standard Time  
Through WEAJ and associated N. B. C. stations

On the Pacific Coast  
8 P. M., Pacific Standard Time  
Through N. B. C. Pacific Coast network



Illustrated to the right is the cylindrical cell type of "B" battery construction. Note the waste space between the cells.

## EVEREADY

### Radio Batteries

—they last longer



The air



d n't miss

This is the Eveready Layerbilt story being told to your customers during March in national magazines and newspapers.



The new Exide "AB" Power Unit — with socket power operation. "B" voltage up to 180.

# Built to Build Business for you

*This "AB" Power Unit will satisfy even the most rabid radio fans*

HERE'S an "AB" power unit that is built to build business for you. It was made for the business that only such outstanding socket power will satisfy. It's the Exide super "AB" Power Unit.

Your customers looking for the finest in radio power will instantly appreciate this unit. Its performance goes way beyond ordinary socket power.

Exide has been supplying radio power since the earliest days of radio. The Exide "AB" Power Unit is the result of careful research and study.

It is the finest thing in its field—a scientific development of radio power engineering—

evolved on the latest storage battery principles.

The power this unit supplies is steady, lusty, automatic, dependable as the Exide Battery—up to the job for any size set—three tubes or ten tubes.

These points will impress your customers to the sales point. National advertising has told them about the Exide "AB" Power Unit even before you demonstrate it.

Does your stock include the Exide "A" Battery, the Exide "B" Battery, the Exide "A" Power Unit, the Exide "B" Power Unit and the Exide Master Control Switch? Check up and get in touch with us at once.



Exide 24-volt "B" Battery with glass cells. 6000 milliamperes hour capacity. Also made in 48-volt size.



Exide "A" Power Unit—in 6-volt and 4-volt sizes.



The new Exide "B" Power Unit—ready to supply vigorous, sustained "B" power to any size set.



Standard Exide 6-volt "A" Battery—also in 4-volt size. Rugged—built in one piece.

# Exide

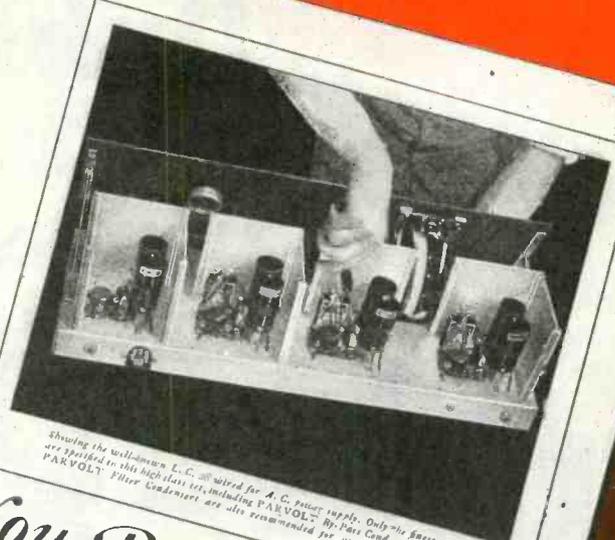
## RADIO BATTERIES

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia  
Exide Batteries of Canada, Limited, Toronto



"I have used ACME PARVOLT Condensers for many years and have never had one break down."

*Sw. G. Bradley*



Showing the well-known L.C. 20 wired for A.C. power supply. Only the best parts are specified in this high class set, including PARVOLT By-Pass Condensers. ACME PARVOLT Filter Condensers are also recommended for use in the power end.

# Whether You Buy or Build a Power Supply Unit for Your Radio PLAY SAFE WITH PARVOLTS!

WHEN you buy an electrified radio or power supply unit for your receiver, look for ACME PARVOLT Condensers; they are your guide to quality more, but they are both his and your guarantee against costly condenser break-down. Should you build your own power supply, be sure to use ACME PARVOLT Condensers and be safeguarded against the possibility of break down. Remember that poor filter condensers have caused untold thousands of dollars worth of loss in the past year or two, for blown out condensers mean blown tubes, burned out transformers and frequently the ruination of speaker units. Just as PARVOLT By-Pass Condensers have been used for years in high grade

receivers, so are PARVOLT Filter Condensers rapidly replacing ordinary condensers in electrified radio. These condensers are wound with the very finest insulating papers combined with the highest grade foils. Every detail produced in one of America's most modern plants and under the supervision of experts in condenser design and manufacture.



ACME PARVOLT FILTER CONDENSERS  
In all ratings, 100, 200, 300, 500, 1000, and 1500 MFD. D.C. requirements. Supplied singly or in complete wire-wound sets for the important power supply units.  
ACME PARVOLT BY-PASS CONDENSERS  
Supplied in all ratings, 100, 200, 500, 1000, and 1500 MFD. D.C. and for all standard working voltages.

Uniformity of capacity and uniformity of sizes are two big features. Accuracy of all ratings, based upon the R.M.A. standards, is another guarantee of uninterrupted service. Play safe with PARVOLTS! Made by THE ACME WIRE CO., New Haven, Conn., manufacturers of magnet and enameled wire, varnished insulations, coil windings, insulated tubing and radio cables.

## ACME PARVOLT CONDENSERS

Made by the Manufacturers of

## ACME CELATSITE WIRE

**INDOOR AERIAL and LOOP WIRE**  
Enameled copper wire in both stranded and solid types. Also Silver Lead-in and Battery Cables.

**CELATSITE FLEXIBLE and SOLID**  
For all types of radio wiring. High insulation value; non-inflammable. 10 colors.

**ACME SPAGHETTI**  
A superior caulked tubing for all practical radio and other electrical requirements. Supplied in 10 colors.

# Watch this PARVOLT Advertising Increase PARVOLT Sales

# Dubilier SOCKET POWER Condensers

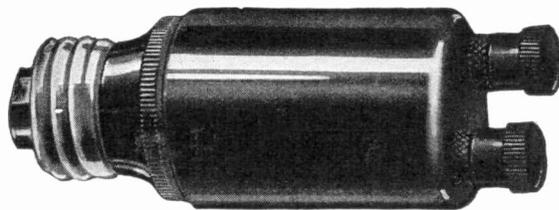


When the possibilities of light socket radio power first engaged the attention of leading electrical engineers, Dubilier's research laboratories were already at work on condensers suitable for experimental units. The development in power-supply devices during the past five years has borne marvelous results—for today the electrically operated receiver is a reality, and its popularity is constantly on the increase.

Dubilier is proud of its part in the success of more than one manufacturer's power unit, and of the confidence shown by amateur experimenters everywhere.

The now complete line of Dubilier power pack condensers meets every requirement in the building of sturdy, compact eliminators for any purpose. Dubilier's recognized high factor of safety insures a life far longer than that of the average condenser and safeguards both receiver and power unit.

*Write for our special Socket Power Condenser Bulletin*



Dubilier Light Socket Aerial provides the last link in complete light socket operation. Nationally advertised—adequately displayed—and sold for \$1.50 on a money-back guarantee to work satisfactorily.

DUBILIER CONDENSER CORP.  
4377 Bronx Blvd., New York City



# Dubilier

## LIGHT-SOCKET AERIAL



# The New SONORA Building

## is set on Musical Row

### 50 West 57th St.

SONORA's general headquarters are now placed in a commanding building close to Fifth Avenue on 57th Street, that wide and beautiful thoroughfare upon which are gathered so many historic and famous names of the musical trades.

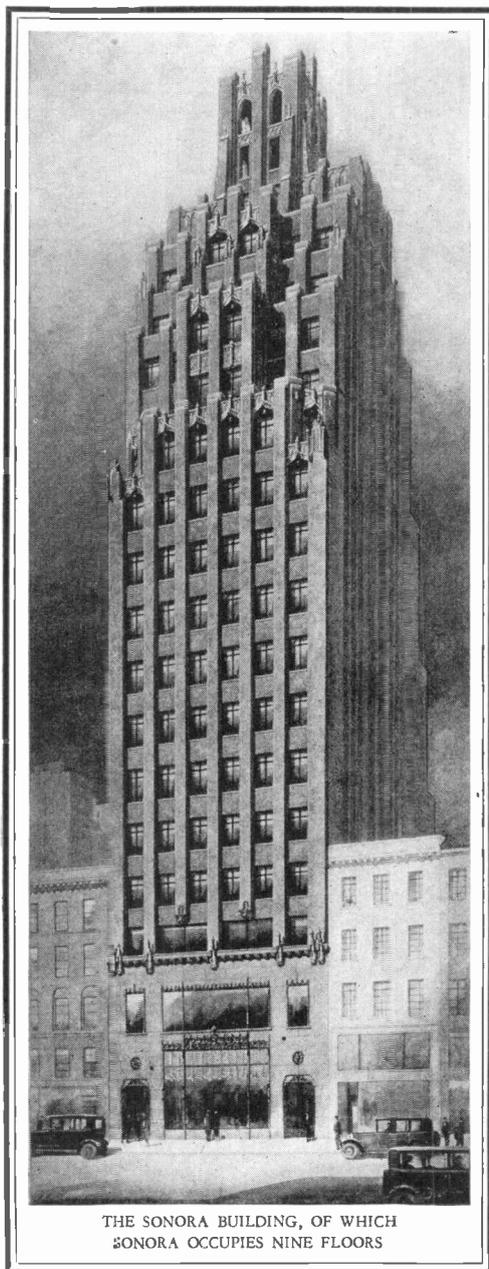
Steinway Hall is but a few steps away. The new Ampico Building is almost directly opposite. Sohmer, Chickering and others are clustered close around and that famous scene of so many musical triumphs—Carnegie Hall—is within a stone's throw.

This new Sonora Building is just one more step in the accomplishment of the Sonora plans. It is another pledge of the pre-eminent position Sonora is about to assume in the radio and phonograph field.

The Sonora developments are far-reaching. New products . . . new performance . . . new men . . . new policies. Every day brings nearer the accomplishment of achievements that are in the making.

The music trades expect—and rightly—great things of Sonora. The closely guarded new products and new plans have inspired a tidal wave of fantastic rumors and conjectures. Yet these rumors are no more extraordinary or revolutionary than the new facts will prove when the time is ripe to reveal them.

If you are a Sonora dealer already, keep steadily behind Sonora's present line—seven of the finest A.C. radio models on the market—the largest, finest and most complete A.C. line of



THE SONORA BUILDING, OF WHICH  
SONORA OCCUPIES NINE FLOORS

1928—the Sonora Phonograph, one of the world's greatest musical instruments set in the most beautiful cases ever produced.

You still have time to take part in Sonora's new sales promotion program for radio and earn Sonora's new and generous discounts on many a sale. You have plenty of time, too, to get your decks stripped for action when Sonora's revolutionary new products shall be ready.

If you are not yet a Sonora dealer, register your desire as soon as possible. An avalanche of requests for information and franchises already is pouring in. Preference will necessarily be given in the distribution of new machines to established Sonora dealers when the new products appear upon the market.

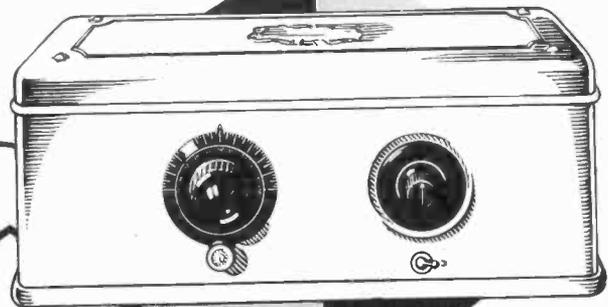
This new building, dedicated to a standard of musical excellence in radios and phonographs which has never before been achieved, stands as a pledge of the position that Sonora is to assume in the musical trades. For the new Sonora will most profoundly affect the business and the financial success of every dealer in the land. Your business will be affected. You cannot help that—neither can we.

But you can request further information and so be ready for the greatest forward step ever made in the reproduction of music. Address applications to the Sonora Company, 50 West 57th Street, New York, 64 East Jackson Blvd., Chicago, or 63 Minna St., San Francisco.

# Sonora

CLEAR AS A BELL

# ATWATER KENT RADIO



the  
*new* A • C SET

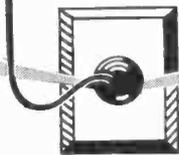
smashes an old tradition

**Y**OU used to hear that radio's "intensive selling season" ended just before the Christmas holidays.

The new Atwater Kent A. C. set has knocked this tradition into a cocked hat.

Introduced *after* Christmas, this set has caused more favorable talk and eager buying than anything else we have ever produced.

From week to week the demand has grown until we have had to increase production to more than 3,000 A. C.



### Model 37

*The astonishing price of the new, six-tube, FULL-VISION Dial, self-contained A. C. set includes everything except tubes and a speaker. No power accessories required—no batteries, no charger. For use with 110-115 volt, 60-cycle, Alternating Current. Uses six A. C. amplifying tubes, and one rectifying tube.*

**\$88**

without tubes

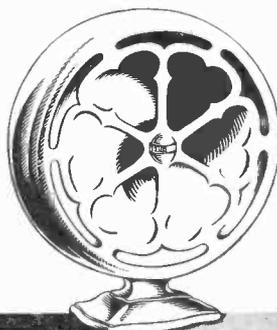
sets a day. By the middle of February we had made and sold more than 100,000.

### *For spring and summer profits*

Dealers who push this phenomenal set—dealers who, through local advertising, tell people where to buy it and how good the broadcast programs are **RIGHT NOW**—and how good they will continue to be—should find their business this spring and summer the largest and most profitable they have ever known.

### Model E Radio Speaker \$24

Radio's truest voice. All parts protected against moisture. Comes in a variety of beautiful color combinations.



*Atwater Kent Radio Hour every Sunday night on 23 associated stations*

ONE Dial Receivers licensed under U. S. Patent 1,014,002

*Prices slightly higher West of the Rockies*

**ATWATER KENT MANUFACTURING CO.**

*A. Atwater Kent, President*

4733 Wissahickon Ave.

Philadelphia, Pa.

## It is No Time to be Changing Horses

*An Open Letter to the United States Senate and House of Representatives*

*Gentlemen of the Congress—*

THE radio industry appeals to you to turn aside from politics and other problems for a few hours and consider a very vital interest that intimately concerns the happiness of fifty million American citizens—the men and women whom you represent in Washington. These men and women—your constituents—have come to depend upon radio broadcasting for a daily service of news, information, education and entertainment. This service is put in jeopardy for lack of legislation prolonging the life of the Federal Radio Commission for the full term of their appointments.

It is not the purpose of this message to you to argue what form such legislation should take nor what specific principles should be embodied in it. The sole reason that prompts the editors of this publication to direct this message to you is the pressing necessity that exists for prolonging the life of the radio commission, that it may complete its work in the service of the vast listening public.

Gentlemen, the job is only half done. The radio commission is in the middle of its problem. It has a definite program outlined which must be carried out. No other Governmental agency in Washington is equipped to carry on the work of the commission. Confusion in broadcasting still exists to a large

degree. The process of straightening out the entanglement of wavelengths is inescapably slow and tedious. It could not be fully accomplished within the past year—the first of the commission's existence.

The Radio Commission has rendered an outstanding public service. For the protection of the public interest, "convenience and necessity," and for the preservation of a great industry, the life of the Commission must be prolonged until it has had time to finish its tremendous task.

IT IS unimportant to the American people whether broadcast licenses are issued for ninety days or six months. *But is IS vitally important to the American people that the work of the Radio Commission should continue and go forward until it is completed.* And on its continuance hinges not only this daily service to this host of citizens but the welfare of an entire industry.

The fifteenth of March is but a few short days away, as this is written. There is much to be done and scant time to do it. But action must be taken by Congress before that date, if radio broadcasting is to be saved from confusion. Therefore we urgently appeal to you to take action in this matter now—and extend the life of the Radio Commission, with its powers unshackled by restrictive legislation.

### *An Appeal to Congress*

WITH the end of the life of the Federal Radio Commission little more than two weeks off and nothing done by Congress to provide for the orderly completion of its work, so vital to the radio industry and to the listening public, on March 1 the editors of "Radio Retailing" sent this open letter to the members of the United States Senate and House of Representatives.

Opinions differ as to the ultimate action which Congress should take to provide for the permanent regulation of radio broadcasting. "Radio Retailing" makes no recommendation at this time. All men agree, however, that the Radio Commission has not yet had time enough to establish complete order in broadcasting nor to set up a basis for the organizing of short wave communication. Common sense demands that they be permitted to get on with the job, which they have been doing so well.

*We are in the middle of the stream. It is no time to be changing horses*

# Statistical Survey of the RADIO

Estimated figures pertaining to the radio industry from 1922 to date, compiled by *Radio Retailing* from sources as authentic and accurate as it is possible to obtain

## Number of Homes With Sets (As of Jan. 1)

Including both factory-built and home-made after accounting for obsolescence

1922.....	60,000
1923.....	1,500,000
1924.....	3,000,000
1925.....	4,000,000
1926.....	5,000,000
1927.....	6,500,000
1928.....	7,500,000

## Radio Audience (As of Jan. 1)

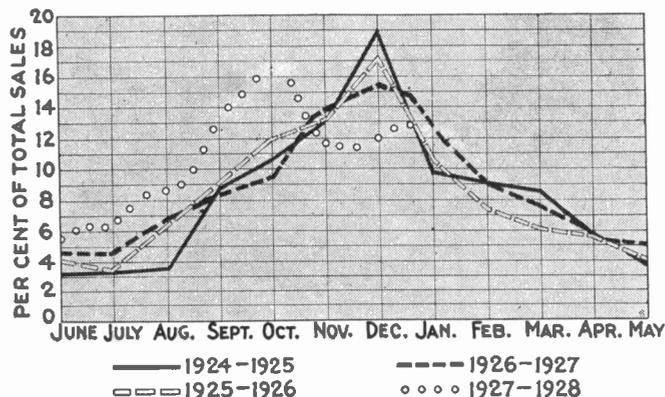
Number of people listening to sets in use

1922.....	75,000
1923.....	3,000,000
1924.....	10,000,000
1925.....	15,000,000
1926.....	20,000,000
1927.....	26,000,000
1928.....	35,000,000

## Total Radio Sales

(At retail, in numbers and dollars, during the year)

	1922	1923	1924	1925	1926	1927	Total to Date
Radio Sets, factory-built No. (including furniture) \$	100,000 \$5,000,000	250,000 \$15,000,000	1,500,000 \$100,000,000	2,000,000 \$165,000,000	1,750,000 \$200,000,000	1,350,000 \$168,750,000	6,950,000 \$653,750,000
Speakers No. \$	25,000 \$750,000	500,000 \$12,000,000	1,500,000 \$30,000,000	2,000,000 \$32,000,000	2,000,000 \$30,000,000	1,400,000 \$28,000,000	7,425,000 \$132,750,000
B-Power Units No. \$			10,000 \$400,000	100,000 \$4,000,000	500,000 \$18,000,000	400,000 \$12,000,000	1,010,000 \$34,400,000
Storage Batteries and A-Power Units No. \$		650,000 \$7,000,000	2,000,000 \$25,000,000	1,700,000 \$26,000,000	2,100,000 \$37,000,000		6,450,000 \$95,000,000
A and AB Power Units No. \$						550,000 \$22,000,000	550,000 \$22,000,000
Dry Batteries, B and C \$	\$4,500,000	\$6,000,000	\$55,000,000	\$66,000,000	\$80,000,000	\$68,000,000	\$279,500,000
Receiving Tubes No. \$	1,000,000 \$6,000,000	4,500,000 \$17,000,000	12,000,000 \$36,000,000	20,000,000 \$48,000,000	30,000,000 \$58,000,000	39,000,000 \$58,500,000	106,500,000 \$223,500,000
Rectifying Tubes No. \$						2,200,000 \$8,800,000	2,200,000 \$8,800,000
Other Accessories (including headsets, separate cabinets, aerial equipment, etc.) \$	\$3,750,000	\$4,000,000	\$11,600,000	\$24,000,000	\$33,000,000		
Other Accessories (not including furniture) \$						\$7,500,000	\$83,850,000
Radio Furniture (separate) \$						\$52,000,000	\$52,000,000
Parts \$	\$40,000,000	\$75,000,000	\$100,000,000	\$65,000,000	\$50,000,000	\$21,000,000	\$351,000,000
No. Home Made Sets No.	1,000,000	1,500,000	1,750,000	1,000,000	750,000	300,000	6,300,000
<b>Totals</b>							
Sets \$	\$5,000,000	\$15,000,000	\$100,000,000	\$165,000,000	\$200,000,000	\$168,750,000	\$653,750,000
Parts \$	\$40,000,000	\$75,000,000	\$100,000,000	\$65,000,000	\$50,000,000	\$21,000,000	\$351,000,000
Accessories \$	\$15,000,000	\$46,000,000	\$158,000,000	\$200,000,000	\$256,000,000	\$256,800,000	\$931,800,000
	\$60,000,000	\$136,000,000	\$358,000,000	\$430,000,000	\$506,000,000	\$446,550,000	\$1,936,550,000



Survey made among a number of retailers shows sales curve slowly straightening out, as compared with other years.

## Number Sets on Farms

(At end of year)

1922.....	10,000
1923.....	145,000
1924.....	360,000
1925.....	550,000
1926.....	1,350,000
1927.....	1,600,000

FOR the past three months representatives of *Radio Retailing* have been compiling these figures by means of personal contact with leading radio manufacturers. The editors desire to acknowledge their courteous aid and co-operation.

# BUSINESS, *as of* January 1, 1928

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## Number of Dwellings Wired and Unwired by States

States	Estimated Number of Homes	Number Wired for Electricity Service	Number Unwired
United States	27,850,000	17,596,390	*10,559,510
Alabama	600,000	133,900	466,100
Arizona	106,000	35,700	70,300
Arkansas	454,000	107,100	346,900
California	1,030,000	1,335,900	*
Colorado	250,000	169,000	81,000
Connecticut	380,000	325,800	54,200
Delaware	58,000	26,430	31,570
District of Columbia	126,000	97,700	28,300
Florida	312,000	133,700	178,300
Georgia	746,000	135,600	610,400
Idaho	124,000	63,500	60,500
Illinois	1,710,000	1,470,740	239,260
Indiana	744,000	515,600	228,400
Iowa	576,000	328,200	247,800
Kansas	434,000	274,600	159,400
Kentucky	600,000	181,300	418,700
Louisiana	455,000	104,300	350,700
Maine	188,000	129,500	58,500
Maryland	376,000	236,400	139,600
Massachusetts	995,000	851,200	143,800
Michigan	1,040,000	856,800	183,200
Minnesota	632,000	384,750	247,250
Mississippi	426,000	51,150	374,850
Missouri	830,000	541,500	288,500
Montana	165,000	67,120	97,880
Nebraska	330,000	169,000	161,000
Nevada	19,000	13,730	5,270
New Hampshire	108,000	89,700	18,300
New Jersey	877,000	777,300	99,700
New Mexico	92,000	22,540	69,460
New York	2,690,000	2,549,900	140,100
North Carolina	676,000	161,100	514,900
North Dakota	153,000	46,400	106,600
Ohio	1,570,000	1,228,000	342,000
Oklahoma	557,000	176,950	380,050
Oregon	209,000	180,600	28,400
Pennsylvania	2,290,000	1,437,500	852,500
Rhode Island	165,000	130,100	34,900
South Carolina	434,000	89,700	344,300
South Dakota	164,000	53,900	110,100
Tennessee	586,000	164,100	421,900
Texas	1,270,000	491,900	778,100
Utah	122,000	104,600	17,400
Vermont	84,000	59,500	24,500
Virginia	596,000	167,200	428,800
Washington	364,000	330,080	33,920
West Virginia	396,000	121,000	275,000
Wisconsin	685,000	443,900	241,100
Wyoming	56,000	30,200	25,800

\* The discrepancy between totals for the U. S. is due to California where the total reported for residential customers exceeds the estimated number of families.

## Number of Sets Sold

Total number radio sets, home-made and factory built, sold to date	13,250,000
Homes with sets	7,500,000
Scrapped, or more than one set in a home	5,750,000

### TOTAL SALES IN SIX YEARS

Total radio sales at retail, 1922 to 1927, inclusive	\$1,936,550,000
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## Industry Census

(To date)

Manufacturers	1,200
Wholesalers and distributors	1,100
*Retailers	28,000

\*Carrying full stock of sets and accessories

## Saturation Comparison

(To date)

No. Homes in U. S.	27,850,000
No. Phonographs	12,500,000
No. Passenger Autos	16,100,000
No. Telephones	18,250,000
No. Homes wired for electricity	17,596,000
No. Farms	6,500,000
No. Homes without radio sets	20,350,000
Radio Saturation	27%

## Radio Exports

(At end of year)

1922	\$2,800,000
1923	\$3,450,000
1924	\$6,000,000
1925	\$9,900,000
1926	\$9,500,000
1927	\$9,200,000



# “WE’RE *in the*

By L. S. BAKER

*Managing Director,  
National Association of Broadcasters*



YOU have heard from countless sources, with all kinds of variations, for many months, the phrase, “Broadcasting is the life-blood of the radio industry.” In fact, I should not be surprised if some of you have heard it up to the point of possible offense, and wondered if the broadcaster ever thought of anything else.

But coincidental with the terrific lung power with which this phrase has been expounded and reiterated, has been another sales axiom directed at radio dealers and jobbers namely, “Sell Radio Programs.”

Why is broadcasting the life-blood of the radio industry? The answer is obvious. Broadcasting is the “good road” of radio. Unlike the automotive industry, however, broadcasting as an industry has not been directly fostered by the manufacturing side of the radio triangle, which most profits from it, notwithstanding the fact that several individual manufacturers have made notable contributions.

Accepting the fact that American broadcasting is the one and only thing which makes the radio



*Photos by courtesy of the National Broadcasting Company.*



*Editor’s Note—The following article is taken from an address made by Mr. Baker at the mid-winter meeting of the Federated Radio Trade Association, February 14, at Milwaukee. The message it contains is of such unusual interest to the entire trade that the editors believe it worthy of widespread attention and serious consideration.*

# Show Business

*The public buys radio not as radio but as entertainment—Why not adapt our sales plans to that principle?*

business possible, let us take a look at what that one element consists of.

The service bureau of our organization has found that in the year just closed an operating expenditure of something over twenty million dollars was made in American broadcasting. In other words, during the past year the radio trade has had at its disposal an advertising appropriation of twenty million dollars which did not cost it one cent. Of that twenty million dollars something over four million dollars went in payment of artists alone, approximately one-half of which was expended by the several network organizations.

In order to picture these figures and what they mean more clearly allow me to make a comparison. The average payroll for artists per week of a first class Broadway musical comedy is approximately \$16,000. Assuming that such a hit runs 52 weeks of the year, it would take five of these productions to equal in artists' expenditure, the \$4,000,000 figure which broadcasting attained last year.

The average weekly audience of such a production is about 8,000 persons per week,



or 416,000 people per year. The five productions mentioned, in the course of a year would play to a total audience of 2,080,000 people.

Assume, if you will, that these five productions played seven nights a week and three matinees in the largest available theaters in the country. In a year the largest total audience they could possibly play to would be approximately 13,000,000 persons.

But American broadcasting has a possible listening audience of 30,-

000,000 people. The fiends for figures give as their best estimate an average listening audience to all broadcasting per night as 20,000,000. Think of it! We entertain on the average per night, in the comfort, pleasure and freedom of their own home, a total audience which it would take the aforementioned theatrical productions two years to entertain. I believe that you will agree that even this is staggering to the imagination, but let us go farther.

On the theatrical basis of a 2½-hour show 365 days of the year, which is what radio provides each evening from 8:30 to 11, to say nothing of the editorial, educational and news features of radio broadcasting service, let us see what this avail-



able entertainment means to the average broadcast listener.

Let us assume that the average price of \$3 is the cost of the best orchestra seat in the country. Compare this to the comfort enjoyed by the radio listener in his own home. If this listener attended such productions each night in the year, he would expend \$1,095 at the box office.

But what does it actually cost him? An estimated average investment of \$100 for a radio set—allow him 6 per cent interest on his investment, an item of \$6, plus an annual operating cost of, let us say, \$50 for tubes, batteries, etc., or a total of \$56.

What is the merchandise value of this argument as against the description of tubes, circuits, condensers, shields, this or that—all confusing technicalities to the average layman? I believe you will agree, without qualification, that those who buy a set in response to the extolling of its technical characteristics are an insignificant minority as compared to the whole.

Radio is every man's theater in his own home! And for \$56 per year!!

In broadcasting we discovered some time ago that we were in the show business, and we are getting into it more and more each day. We are taking leaves from the showman's handbook each day—and I heartily commend to you the same procedure.

How does the theater showman merchandise his wares? Does he regale you with the virtues of his synchronized projector, his fully shielded indirect lights, his motor generator rectifiers, or the latest a.c. projector tubes? No, he sells you the show—the entertainment—and on a comparatively modest scale assures you that you will witness all this produced by the best available equipment in the greatest of comfort. But see the show—is his theme. That theme—listen to radio entertainment—should dominate all radio advertising.

Many of you either came from, or are still in, the automotive industry. If neither one of these, I know it is safe to assume that all of you are motor car owners. The analogy is perfect within your own experience. Why did you buy an automobile? I don't need to tell you. Good roads, and the convenient and efficient service, together with the personal enjoyment of touring caused you to buy an automobile. Certainly, you bought the particular make you have because of its technical characteristics, real or alleged, which attracted your attention, but, nevertheless, you bought it for the service and enjoyment you are getting out of it.

Do you wonder that we shout, "Sell Programs" or, as I like to think of the expression—"Merchandise these programs to your own advantage in the sale of sets and accessories."

WITHOUT fear of contradiction, I submit that this is at once not only the greatest advertising appropriation and campaign of any American industry of all time, available for the dealers of that industry, but it has the greatest potentialities for merchandising. It is like unharnessed water power going over the falls, for it goes on day after day whether you use it or not, only

waiting for you to harness and exploit properly the tremendous power it contains. American industries and business institutions by their use and support of broadcasting provide this tremendous potential.

All this, you may say, is but theory and fancy figures. The accuracy of the principles involved can be checked by turning to your own experience.

When have your greatest radio sales been? Always at the time just prior to, and following after, the broadcasting of great events or spectacular programs. Without boring you with a long list of exact cases, just let me refer to last summer.

Radio sets were bought in a great many localities throughout the entire summer as a result of the Lindbergh, Byrd, and Mississippi flood broadcasts, and when the Dempsey-Sharkey fight came along, to be followed soon after by the Dempsey-Tunney fight, and the Radio Industries Banquet, many of us actually saw purchasers, with radio sets packed on their shoulders, going home on street cars, in the subways and on foot.

So remarkable, at these times, were the demands for sets, that some became over-optimistic and overstocked themselves. There were, however, more who were guilty of under-optimism and did not avail themselves of the opportunity to tell their customers of

what was coming along and sell them the desirability of being prepared to hear these programs.

I should prefer to leave the subject at this point, and let you, who will have to do the actual merchandising, work out your own devices to accomplish this. I should feel guilty, however, in doing this, for we have encountered, in the work of our organization, several instances of both how to do it, and how not to do it, which you may find of value.

In order to establish some of the evils first and then perfect the remedy, let me give you one of the instances of misconceived merchandising of broadcasting which recently came to our attention.

NOT so many months ago, our organization had a great deal to do with securing the installation of a modern transmitter, properly located just outside one of the metropolitan cities, and obtaining for that transmitter a much better wavelength than had ever been available for service in that district. Our part in this affair was based entirely upon the fact that the district had never been properly serviced for radio. Almost immediately after this station went into operation, sponsoring excellent programs of local origin, and also availing itself of national events which came over the several networks whenever wires were available to that station, the sale of sets and accessories in that locality showed a very decided increase, attributed to no other cause than the installation of the modern station, and the coming of excellent programs to the community.

A notable thing happened soon after this—which is probably the most atrocious example of shortsightedness on the part of dealers that could have been conceived. A large number of a certain excellent make of electric

(Please turn to page 74)

# SIMPLICITY— *features these* WINDOWS



## PRACTICAL YET ARTISTIC

Concentration on one model with practical yet unobtrusive display cut-outs won the third prize for C. W. Sauerwine, Huntington, Ind. in the recent Federal Radio Corporation window display contest. (Left)

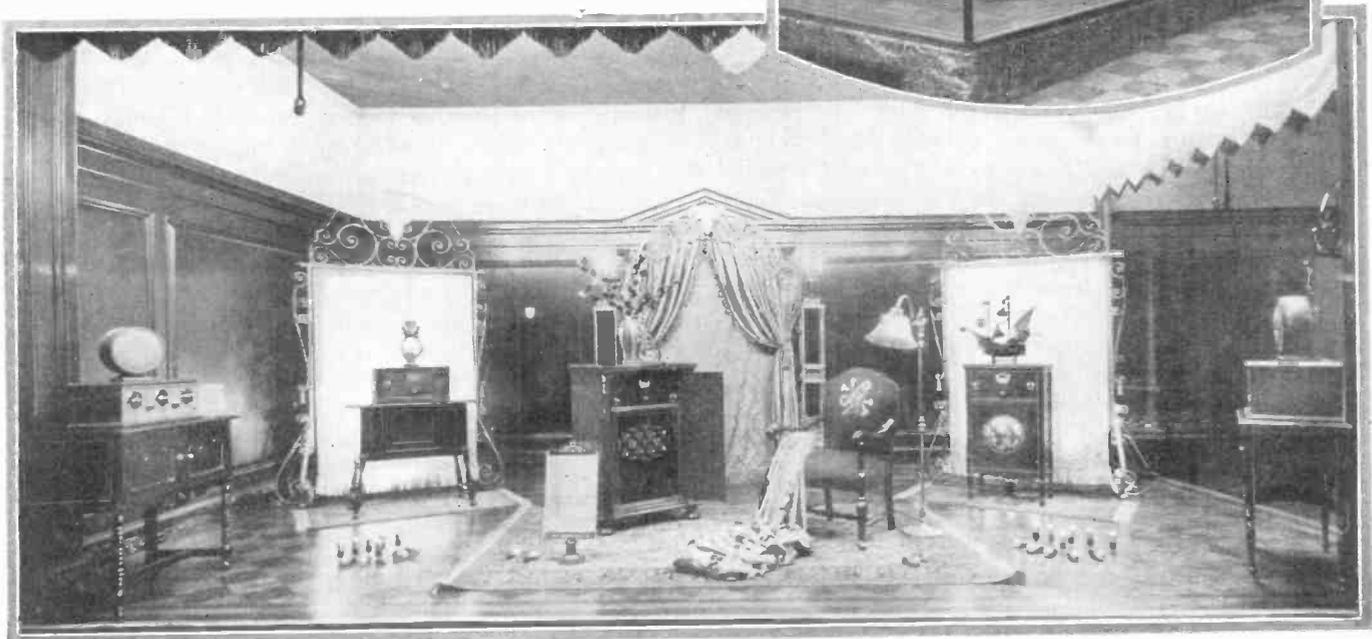
## THE HOME APPEAL

Another excellent example of simplicity and concentration on one set, together with the appeal of the home setting, is revealed in this window of Nace's Music Store, Hanover, Pa. (Right)

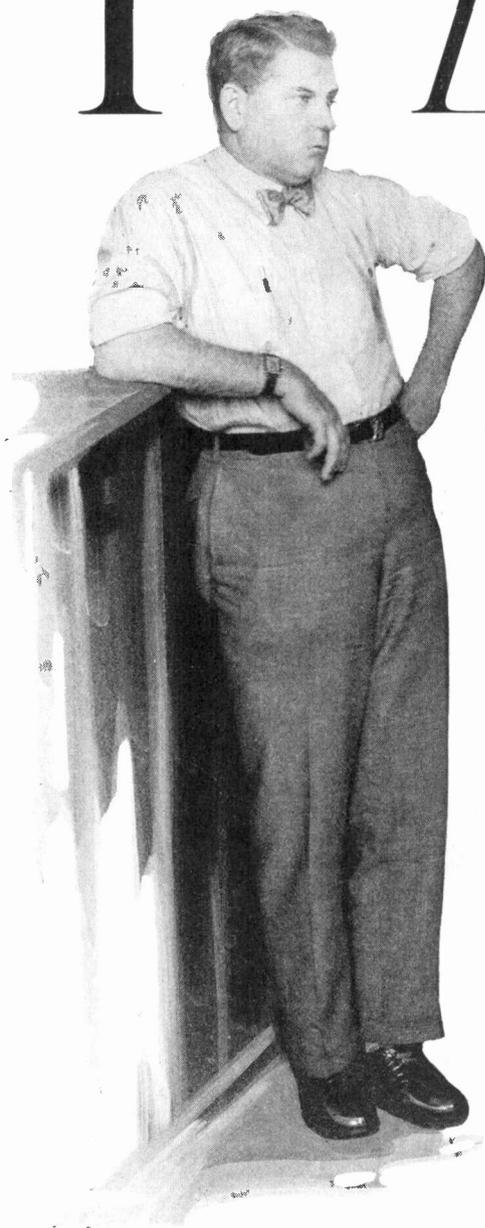


## WROUGHT IRON WITH BLUE AND GOLD DAMASK

Hand-wrought iron finished in gold with blue and gold damask drapes was the background used in this attractive window display of the Davidson Furniture Company, Des Moines, Ia. Two wrought iron lamps surmounted the center unit and lighted the window at night. (Below)



# "I Let Them Sell



*How the past-president of the National Retail Hardware Association sold 265 sets in 14 months, in a town of 5,500 by letting the prospect "get acquainted" with the set himself*

## Dealers Who Have Made Radio Pay— No. 14

morning, Sunday, and played with it myself—on the Q T. Now I didn't know a thing about the technical side of radio, didn't want to, don't yet. And I soon found out that I didn't have to. The fascination, to me as a novice, of twirling the little knobs and getting programs convinced me, in short order, that others too could be sold in the same manner. To date eighty per cent of our sales have been made by letting the prospect alone, in the little back room of our store, with an operating set before him.

### GETS THEM TO TURN THE DIALS

"I NEVER press a prospective purchaser to sign until I know he's good and ready. Generally this should not be done on the first visit. The main object is to get him into that little back room. To get him to sit down before a set, which is kept there always ready for instant use, and to persuade him, or her, to operate it.

"Here's the way I make the most of my sales," said Beatty to a representative of this paper. "I spot a friend of mine hanging around the radio cabinets in the front of the store. I edge up to him casually and ask him if he owns a radio set or knows anything about radio. If he says, 'No,' I exclaim, 'Fine—I don't either!'

"Then I lead him to the back of the store; to the little room with its easy chairs and operating set. When I get him there I point to the switch and say, 'That's the thing that turns it on—I know *that* about it anyhow.'

"Then I persuade him to turn the dial. Before long he has brought in one or two stations. That's my cue. Instead of starting a lot of chatter about the inside of the set I leave him in that little back room *alone* saying, 'Excuse me for a moment, please. I have a little business to attend to in the front of the store.'

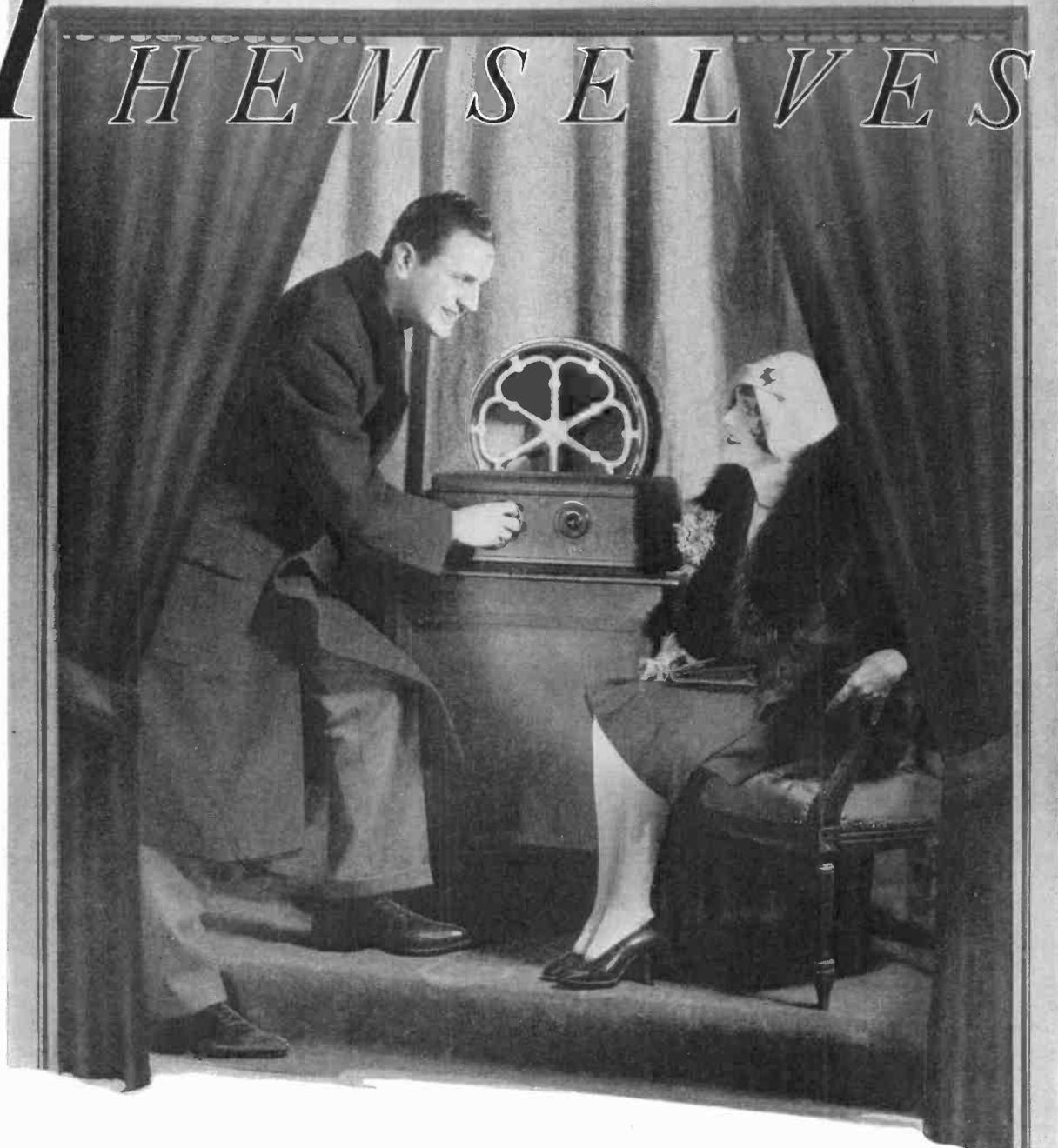
"Then I leave him—but I don't go far away. I stick around where I can keep an eye on him, unobserved. If I believe that all is not well I go back—but I let him continue to do all the tuning. I do not leave him too

PRIOR to December, 1926, the hardware firm of H. G. Beatty and Company, Clinton, Ill., never had sold a radio set. "Not for me!" senior member H. R. Beatty, past-president of the National Retail Hardware Association, would exclaim, in response to the many queries on this subject put to him by brother members of this association from Maine to California. But that was before the 1926 Army and Navy football game.

It was on a Sunday morning, in November of that year, that he accidentally sold himself—and decided to merchandise radio for all there was in it. From December, 1926, to February, 1928, Beatty's concern installed 265 radio sets. Let Mr. Beatty tell the story of this achievement, in a town of 5,500 persons, in his own characteristic language:

"Our first sample set, installed in the store over my protest, for the Army and Navy game, attracted so much attention that I went down to the old shop the next

# T H E M S E L V E S ”



long but when I see, from the expression on his face, that he is hooked I drift in again and explain our proposition—if he asks for it.

#### ADDS \$10 FOR SERVICING

“THAT proposition, and I have stuck to it since the beginning, is no trial installation, but satisfaction guaranteed—and we mean what we say. We add \$10 to the billing for service. We quote the final price, only, installed. If a customer demands a price by items we give it to him, explaining the service and installation charge. Last December we collected almost \$700 for service not as then rendered. We don’t specify a week, a month or a year’s service. We say, ‘Put that set in and any time you pull out that switch and turn the dial and it doesn’t perform call us up and we will have a man out to your home within thirty minutes.’ I estimate that

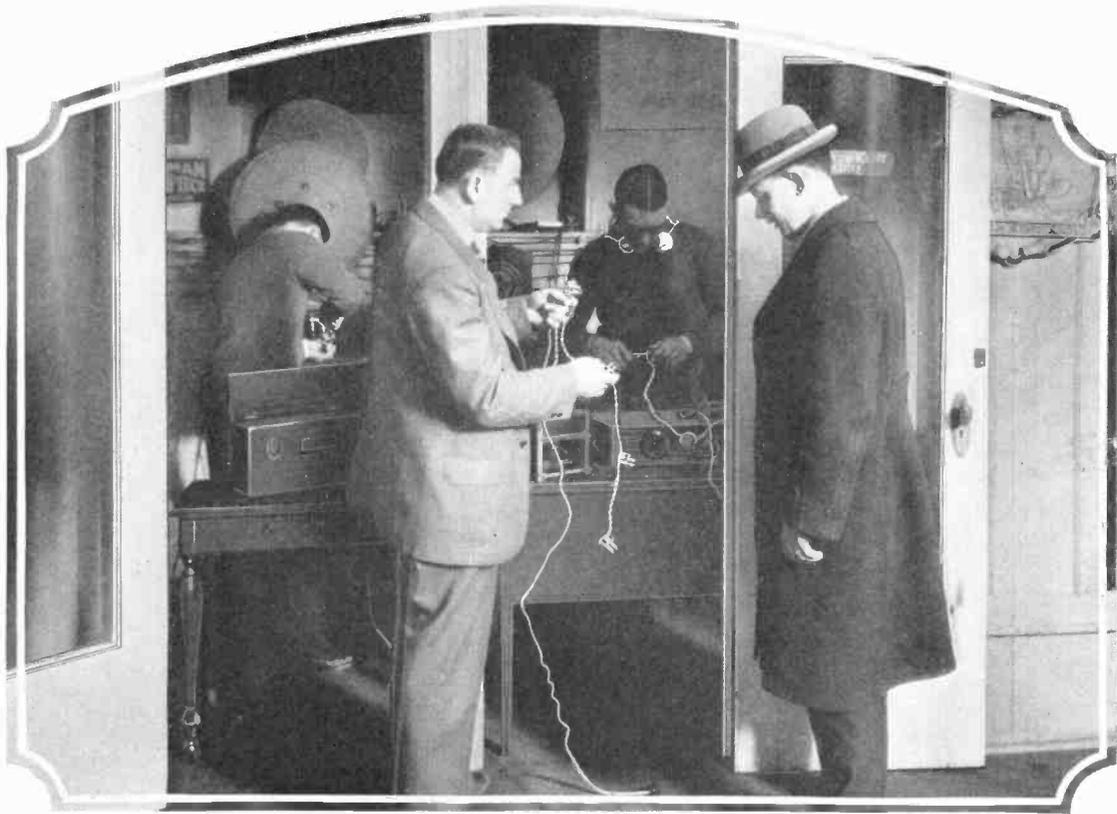
we have so far broken just about even on this arrangement.

“Just a word about this ‘paid in advance’ service. When a merchant sells radio on these terms he must produce. He must organize to render service that not only is technically adequate but that is forthcoming *at once*. To illustrate the necessity and value of this let me cite an actual occurrence.

“One Sunday morning I was breakfasting at a downtown restaurant. A friend of mine saw me and said, ‘Say, Beatty, thanks for the dollar I won on you last night.’

“‘What have I been up to now?’ I said.

“He then explained that he had been to a card party at a home where we recently had installed a radio set. Well it seems this set refused to operate properly. My  
(Please turn to page 78)



# *Merchandising* A.C.

**A** SERVICE booth set up in the store within full view of store traffic and devoted exclusively to converting D.C. sets to A.C. sets is the way B. E. Block and Brothers, Norristown, Pa., started off and are maintaining their campaign to sell A.C. harnesses.

This concern is specializing in the Radio Receptor Powerizer method, and, during the rush just before Christmas, sold 50 outfits and has been averaging one a day ever since. According to J. R. Beideman, manager, the average job costs the customer \$95, including, of course, the Radio Receptor B-power unit and amplifier. The competition of low-priced A.C. tube sets is met, he said, by concentrating on customers who have recently purchased medium and high-priced battery-operated sets and who are loath to give them up.

There are only two men in the radio sales department of the Block Brothers store, but they are able to keep three service men busy bringing in old sets for harnessing and taking out the completed jobs along with the other routine work of the store.

A feature of the sales program is having the service men do the work right in front of the customers in a booth within the store.

"This convinces them on the technical side of the argument," said Mr. Beideman, "although our main selling feature is the quality reproduction with this equipment. We always have several different makes of sets

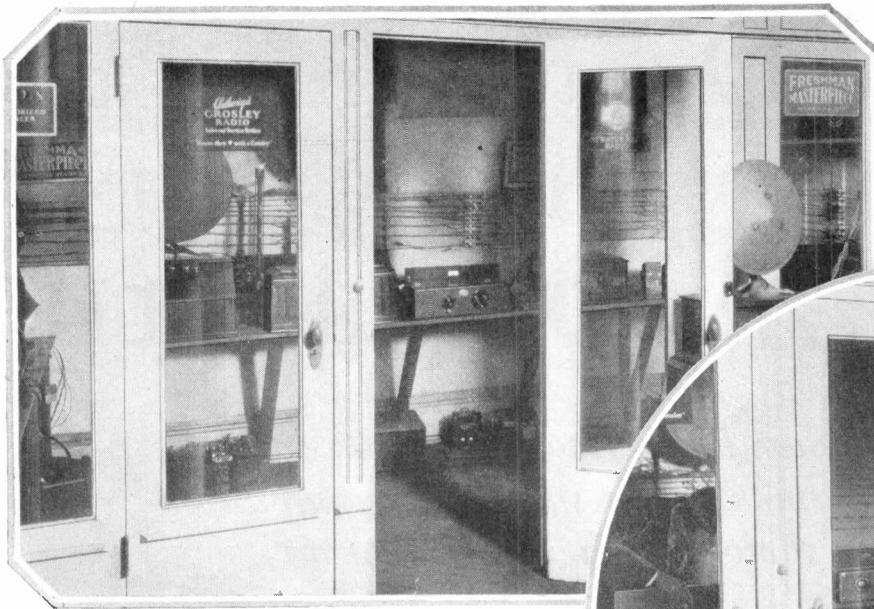
harnessed and ready for operation on the sales floor. We therefore can ordinarily demonstrate the customer's own model equipped with the A.C. harness."

This concern has not used one newspaper advertisement for selling the harnessing equipment, nor has it circularized any of its old customers on the idea. All the sales have been made direct from the sales floor through store traffic alone, the exposed service department and the demonstrations of the completed sets, accounting for the customers' interest.

"Since the advent of the new lower priced A.C. receivers," Beideman states, "we have not tried to sell the harness idea in preference to the A.C. set, but we still have many sales for it with sets which we carry that are not designed for A.C. operation and in many cases where the customer is satisfied with his D.C. set and would like to retain it, but at the same time have it equipped for A.C. operation.

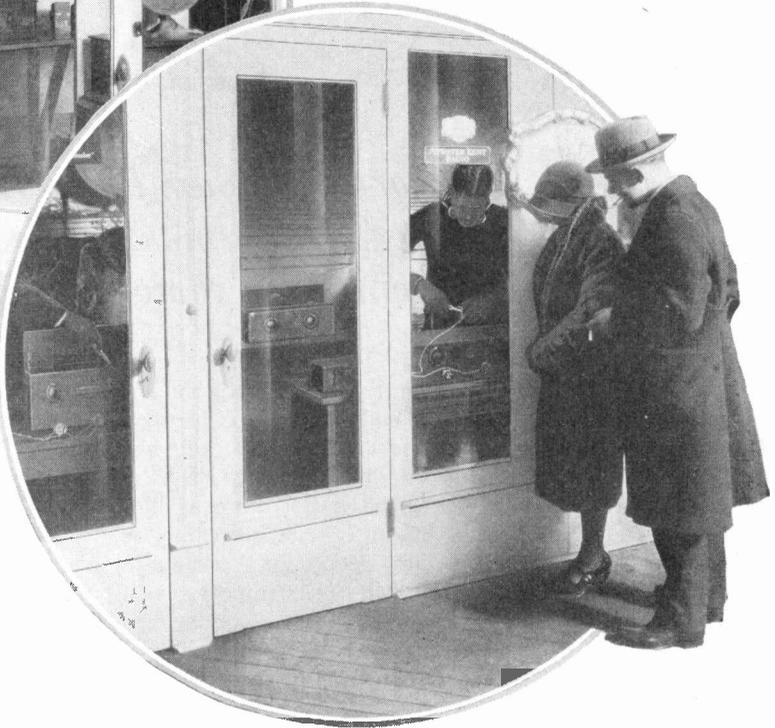
"In any case we can usually show them by demonstration how the equipment which we are using will improve the quality of reproduction of their present receiver in addition to modernizing it for A.C. operation."

**S**IX weeks ago the Universal Battery Service located at 214 Main Avenue, Passaic, N. J., inserted a small ad in one of the Passaic papers to the effect that anybody reading the ad who owned a battery-operated set could



LEFT: Demonstration booths used by B. E. Block & Bros., Norristown, Pa., to merchandise A.C. harnesses to their customers.

BOTTOM OF PAGE: Advertisements of the Super Lab Corp., Chicago, Ill., that have helped to build up an entire business in converting D.C. sets.



Harnesses and complete re-wiring jobs are two methods used—merchandising plans of several stores outlined

# Conversion

**STOP**

*Don't throw your radio just because it's battery*

**Let us rewire it to the new A. in the proper way.**

**You**

- will find the cost for rewiring reasonable, only \$1.50 per tube base plus cost of A. C. power pack and A. C. tubes.
- can save the original cost of your radio set by rewiring it—the result is your gain.
- will have no more batteries, eliminators, acids, to fuss with.
- are offered guaranteed service by competent engineers.
- can consult your nearest radio dealer, our service is open to them.

**Demand S-L-C Converting Service.**

*If your dealer cannot serve you, call, phone or write and we will arrange for you.*

**SUPER LAB CORP.**

6 East Lake Street      Suite 507      Chicago

Telephone Dearborn 7276

**Radio Fans**

*Why Be Bothered With Replacing and Charging Batteries?*

Let us convert your present radio set to use the new A. C. tubes, operating direct from your house current. Sets rewired for small cost, with all necessary equipment furnished.

**Liberal Allowance on Your Old Tubes and Batteries**

All rewiring GUARANTEED. Sets serviced free for ONE YEAR.

*Get Our Prices!*

Super Radio Laboratories  
Room 507—6 E. Lake St.  
Open Evenings. Tel. Dearborn 7276

**Let Us Convert Your Present Radio Into an A.C. Operated Receiver**

*Why Be Bothered With Replacing and Charging Batteries? Just Plug into a Convenient Light Socket!*

Sets rewired at small cost, with all necessary equipment furnished

**Liberal Allowance on Your Old Tubes and Batteries**

All rewiring guaranteed. Sets serviced free for one year. We are equipped to take care of dealers' requirements.

*Special attention given to out-of-town orders.*

**Get Our Prices and Information Regarding Our Easy Payment Plan!**

**SUPER RADIO LABORATORIES**  
Room 507—6 E. Lake St.      Open Evenings      Ph. Dearborn 7276

turn it in and for approximately \$60 have it made into the most modern A.C. receiver.

The results of the ad were immediate and at present, on the average of three sets a week are brought in to be changed over for A.C. operation. The cost of re-wiring varies according to the type of set used. The power supply unit which is used to furnish A, B and C power for the tubes retails for about \$30. Arcturus tubes are used which retail for \$5 apiece and therefore for a 5-tube set the price of the tubes would be \$25. Besides the profit on these two

items a charge varying from \$5 to \$15 is made for the labor of re-wiring.

All types and classes of sets are changed over and each receiver has its own individual problem. The volume control seems to be the most difficult part of the circuit. No set rule can be made for it, and it can only be taken care of through the experience of the service man.

A popular battery set installed in a console is in a prominent place in the store, this set having been  
(Please turn to page 78)

# His Service Department

# A Separate

*E. A. Portal, a San Francisco merchant, treats his service department as a subsidiary company and makes it show an independent profit*

A DEALER who failed recently, figured that the cost of servicing the sets he had sold was 6 per cent of his gross sales and he credited his failure in part to the expense of this important item. Probably the cost of the service department is not quite as high with most radio merchants, but it is true, nevertheless, that service, in many cases, cuts deeply into profit and is held to be justified only because of its importance in getting and holding customers and in the secondary returns which come from leads developed through this form of follow-up. Servicing, by many merchants, is looked upon as a necessary expense rather than a profitable item.

E. A. Portal of E. A. Portal, Inc., San Francisco, does not hold this attitude at all. The servicing end of his business is a department in itself and like any other department of his firm, it shows a profit at the end of the year. By taking this "expensive overhead item" of the radio business and welcoming it as an opportunity, he not only has received all the secondary benefits which come to a business from satisfied customers and additional contacts which come from the outside servicing the firm does, but he makes money on the servicing itself.

"This does not mean that the usual amount of free servicing is not given with every set sold," says Mr. Portal. "As a matter of fact, the firm makes such a feature of free follow-up and takes such good care of new customers that they get used to having their minor needs taken care of, so that by the time the period of free servicing is over, they are unwilling to carry on for themselves, but are glad to have the responsibility taken off their hands at so much per month. We allow three months for free repair work, and during this period the firm requires that at least one call per month be made by its service department."

One point that the Portal company stresses is delivery. All equipment is thoroughly tested beforehand. The set is then carefully wrapped, first in wax paper, then in brown paper, sealed and stamped with a certification that the whole has been tested and certified in good condition by the inspection department. This makes an excellent impression on the customer, according to Mr. Portal. "Delivery without any wrappings, as is the usual custom," he states, "suggests that the set might be one slightly used, from the floor of the shop itself, or if anything goes wrong, that it might have been injured in the handling. The double wrapping and the seal are not only particularly attractive but they produce a psychological suggestion of good care which ties in well with our later servicing contract."

"For three months the new owner is not allowed to have any bother with the set at all. It is not left to him to worry along as best he may, calling for help only if he gets into serious trouble. The regular calls insure the maintenance of clean terminals, the filling of the batteries with distilled water, the minor adjustments, which, if let alone, he might have learned to handle for himself. There is no attempt made to keep him in ignorance, but rather to impress him with the fact that our service is so good that he is permitted to forget his set altogether.

"By the time the three months are up, he has become accustomed to our service, has learned that there really is something to be done about his set occasionally, and he is then ready for our letter which we send him calling attention to our regular radio service contract. In ninety-nine cases out of a hundred, the customer welcomes the opportunity to have the matter handled so satisfactorily and asks for further particulars."

Sample copies of the contract are also available in the store in the

SAMPLE COPY

**E. A. PORTAL CO., INC.** Phone, Prospect 699  
449 GEARY STREET SAN FRANCISCO 691

**RADIO SERVICE CONTRACT**

12 months \$12.00      Date..... 192.....  
6 months \$6.00

Received from .....

Address .....

The sum of ..... Dollars (\$ ..) which entitles the holder of this Contract to the following:

(A.) A complete inspection of your radio equipment once every thirty (30) days during the life of this certificate, this inspection to include:

(1.) A thorough test of your "A", "B" & "C" batteries, your tubes, speaker, charger (or eliminating system) and your radio receiver.

(2.) Cleaning tube contacts, battery and switch contacts, and tightening battery connections.

(3.) Distilled water in battery, charger, etc., when required.

(B.) The delivery to your home and the installation of any batteries, tubes or other accessories purchased from the E. A. Portal Co., Inc. provided such installation does not require more than thirty (30) minutes or one-half hour's time.

(C.) The privilege of one additional call per month provided any trouble should develop between regular inspection periods, this call to be made between the hours of 9:00 a. m. and 5:00 p. m.

This agreement does not in any way entitle the holder to any service or labor other than that set forth in this certificate. Other services or labor will be billed at our regular standard charges.

Inasmuch as the essence of this contract is Service, the E. A. Portal Co., Inc., assumes no further obligation nor responsibility than that stipulated above.

Make all checks payable to the E. A. Portal Co., Inc. This certificate is void unless signed by an authorized salesman of this Company.

E. A. PORTAL CO., INC.

By: ..... Salesman

Good for a period of ..... months from date hereof.

**EXPLANATION**

To insure satisfaction from any device consistent and intelligent attention must be given to it. Few people will give the time or are themselves competent to properly care for any highly technical electric or mechanical instrument. Your radio is of the highest type of these devices and usually represents a large investment.

The care of such instruments should not be left to chance or incompetent hands. Do not wait until it will not work any longer and expect someone to put it back in as good condition as before. Parts of any mechanical or electrical device suffer from such neglect and often the damage can never wholly be rectified.

Have a consistent service plan by competent people. It is far more economical and most certainly a great deal more satisfactory.

Investigate our yearly service contract. Our five years of experience in servicing radio receivers has proven beyond doubt that this is the most practical and successful method to insure satisfactory operation.

Hundreds of our customers are now using these contracts. They are tried and proven.

**Take off and Mail with Your Check**

E. A. PORTAL CO., INC.  
449 Geary St.  
Dear Sirs:—

Inclosed please find my check for (\$6.50 — \$12.00) for which please send me your service contract properly signed.

NAME .....

ADDRESS .....

PHONE .....

*E. A. Portal keeps his service men in costume when they work in the store and when they go out to a customer's house on the service wagons. It is good advertising.*

# Business

By

C. GRUNSKY

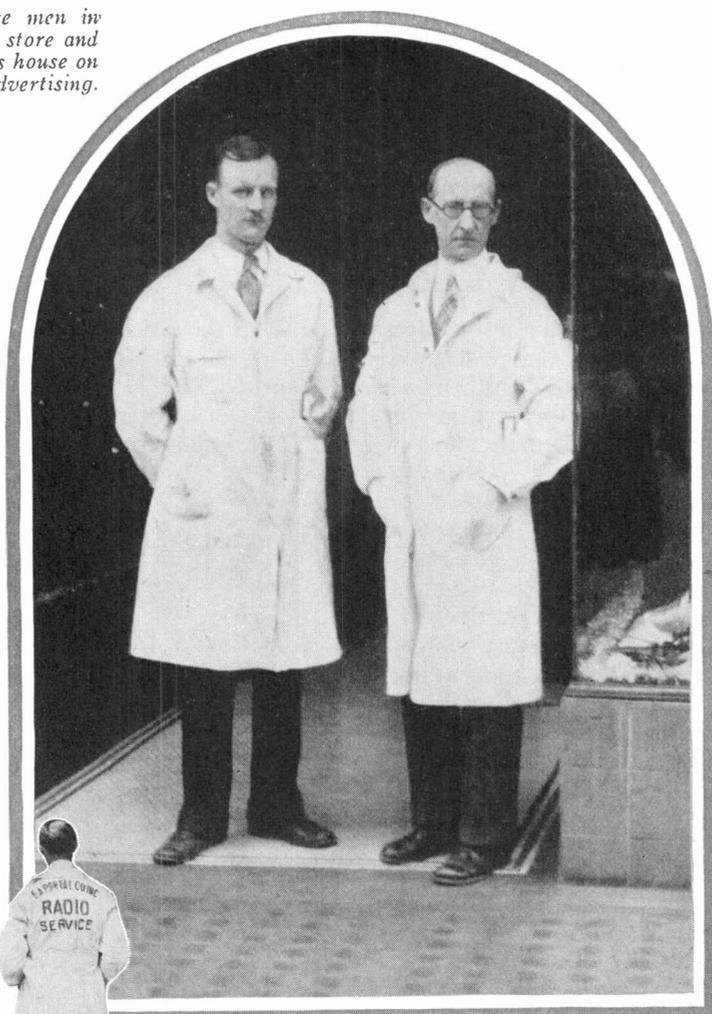
same rack where samples of advertising literature are kept. Picked up by the casual visitor to the store, they often lead to further questions and a shopper thus becomes a regular subscriber. The "explanation" on these forms tells the story. It points out that consistent and intelligent care is required to secure satisfaction from any device and that few people will give the time or are competent to care for the highly technical radio instrument.

The offer made covers much the same type of service which had been rendered during the first three months, involving:

1. A complete inspection of the radio equipment once every thirty days, this inspection to include a thorough test of A, B and C batteries, tubes, speaker, charger or eliminating system and radio receiver; also cleaning tube contacts and tightening battery connections; also furnishing distilled water in battery, charger, etc., when required.
2. The delivery to the home and the installation of any batteries, tubes or other accessories purchased from the E. A. Portal Company, provided such installation does not require more than thirty minutes' time.
3. The privilege of one additional call per month in case trouble should develop between regular inspection periods, this call to be made between the hours of 9 a.m. and 5 p.m.

The contract has been carefully gone over by a lawyer and has been held free from any catches or obligations which might involve the company in any difficulty. The charge for the service is \$12 for one year or \$6.50 for six months and inasmuch as the minimum charge for a service call outside the terms of the contract is \$1.25, the subscriber feels that he is getting his full money's worth.

How successful this contract has proven is shown by the fact that the service department has had to be increased during the past year from five to eleven men. It has been entirely separated from the other departments



of the store, has a separate manager who "hires and fires" help, has a separate set of accounts and is about to have its headquarters in a separate building.

The reason for this last step is because the store is located on the edge of the business district and in the center of the apartment house section where traffic is very congested. This is a very favorable condition for the main business of the store, but from the standpoint of the service department which maintains eight trucks in constant use, it is somewhat of a drawback. The garage space in this district is a big item in itself, not to mention the loss of time involved in reaching the store through crowded traffic and in loading and unloading on arrival. It is planned to locate the department in the residence district, where the run from headquarters to the individual call will be lessened, where the surrounding street space will be less crowded and where rents are lower. Telephone connection with the main store and a daily exchange of ideas and impressions between department heads will be maintained.

"Great care is taken in the selection of men to secure those who are truly capable of handling service work," continues Mr. Portal. "The ideal combination, of course, would be the salesman and technical type combined, but this is rarely possible because the successful salesman cannot be held in the service department for very long. The manager cares for all business features of the work and has general supervision over the service men, the routing of the trucks, the billing and other such

features. Second in command to him is a man who ranks high in the technical side of radio. This man takes in hand all new comers to the service department and puts them through a course of instruction which supplements the knowledge they already possess, preparing them to handle any emergency they may meet with in the field. Service jobs which come into the shop for handling are always under his supervision and he examines all work before it goes out.

#### SERVICE MEN HAVE UNIFORMS

ONE of the most effective details in the working out of the service department has been the placing of the service men in uniform, according to Mr. Portal. When in the shop or out in the field with one of the trucks they are required to wear white, smock-like coats with "E. A. Portal Service Department" across the back in red letters. "We have found," he states, "that this gives them immediate entry into a home when they ring the bell, whereas when a man in ordinary clothes asks for admission, he usually has to explain his errand and to prove his connection with the company he represents before he is admitted. The uniform makes his errand evident without words. Moreover it gives an official standing to his work which it might not otherwise possess. It reassures the radio owner that a member of the regular service department and not merely someone around the shop who happens to be free is attending to this work.

"Most important of all, perhaps, is its advertising value. The service trucks are doubly conspicuous because of their drivers in uniform. And the man, even when detached from his truck, carries the message of his store in the most favorable way with him wherever he goes. 'E. A. Portal Radio Store,' says the housewife to herself, meeting one of the men as she goes out and he enters the apartment house door,—'and rendering service, too. That will be a good place to buy my set when I get it. I want someone who will take good care of it.' The cost of the uniforms comes to about \$30 monthly for laundering alone, but it has proved to be an expenditure for a good cause."

The service men are given stuffers, advertising the products carried by the firm, to place in the mail boxes of all apartments wherever service calls are made. This takes but a second and has brought excellent results. Not a few sales have been traced directly to this practice.

Additional calls above those specified in the contract,—service calls upon those not possessing a contract, or calls made after 5 o'clock—are charged for according to the time consumed. Long experience has shown that in order for such calls to pay, the minimum charge must be \$1.25. This represents an equivalent of 15 minutes' time on the part of the service man. The rule, therefore, has been established that the service man shall take not less than 15 minutes to each call. This means that in addition to changing the battery, which, let

us say, was the particular detail he found needing attention, he also tests the tubes and loud speaker, and the antenna. Two benefits are thereby derived. In the first place the customer feels that real service has been rendered and has no objection to the \$1.25 bill when it arrives, whereas if the man had left after two minutes, she would have been apt to question the justice of the charge. Secondly, the tests often reveal some other small fault which might have interrupted service a little later if neglected and led to a second service call within a day or two—a call, by the way, for which it would be almost impossible to collect a second \$1.25.

In line with this same principle, the service department has made a practice of sending out bills immediately—the next day after the service is rendered. This is contrary to the practice of most radio dealers who have

a regular monthly period for billing, but it has been found that this method eliminates all controversy and is quite acceptable to the customer, who generally has no desire to avoid a legitimate charge, but who, after a week or so, perhaps has forgotten just what was done. In the past when the monthly system of billing was still used, it was found that occasions would arise, for instance, where tubes would be replaced in the absence of the owner, the service man being admitted by a servant, or someone other than the one paying bills. When the bill for this material arrived a week or two later it often happened that the owner was unconvinced that new tubes had actually been put in and he protested the bill. This source of controversy has now

been eliminated entirely. In addition the money in payment is received just that much sooner, which means that not so much capital need be tied up in the running of the department. Service contracts are paid in advance, so that there are no collection difficulties with that item as in the case of sales.

#### 50 PER CENT OF SERVICE CALLS ARE FROM NON-CUSTOMERS

IN ADDITION to the regular customers of the store who have become subscribers to the radio service department, there are a large number of outsiders who have purchased their equipment elsewhere, who have also come to Portal to take care of it. It is estimated that fully fifty per cent of the service calls are made upon sets not purchased in the store.

This outside business means building up a very valuable contact which will undoubtedly lead to future sales when radio equipment is to be replaced, and which certainly leads to many incidental sales of accessories in the meantime.

Furthermore, each one of these new customers becomes an additional broadcasting station about the excellent care which Portal takes of your radio set. Perhaps the best known feature of the business has come to be this service department, and when, in addition, it shows a profit, you have a good record for the service department of any radio store.

*"MANY radio merchants look upon service as an expensive item," says E. A. Portal, "but, I welcome it as an opportunity for making contacts with prospective customers. I not only receive the secondary benefits from these contacts but am making money from the department as well."*

# A.C. Harnesses *and other Topics*

## Thinks A.C. Harness Should Be Pushed By the Retailers

Editor, *Radio Retailing*:

I THINK that radio dealers are losing a large amount of business by not aggressively selling A.C. harness outfits. Set sales are slow and I believe they are going to continue to be considerably below par. From talking with many individuals, with many dealers, and distributors, I am sure that there are possibilities in A.C. harness for the dealer doing a very fine business.

I find that the public is anxious to buy this A.C. tube equipment. On the other hand I find dealers rather reluctant to aggressively announce and push the outfits for fear they will kill possible sales of new A.C. receivers. I also find that the distributor is far worse than the dealer on this point as the distributor has made large commitments with manufacturers for new sets which incidentally they are not selling.

I feel that any tendency on the part of the distributor or dealer to believe that pushing an outfit which will electrify old sets will kill the sale of new sets is fundamentally unsound. Our outfit could not possibly interfere with the sale of a new receiver but can be sold to probably 85 per cent of the present owners of receiving sets as these owners are not going to buy a new set this year. Therefore, why not get the dealer to see the logic of selling (at retail) 85 per cent of the present owners rather than to set back and do practically no business with this very large section of the radio public.

I recently saw some interesting figures as follows: That there are 6,500,000 homes equipped with radio. That production and sales for 1927-28 would be 2,000,000 new sets, one-half of which would be used for replacement purposes. On this basis only 15 per cent of the present homes equipped would purchase new sets this year. This leaves 85 per cent as the maximum potential market for outfits such as we have. Subtracting the number of homes that do not have electricity would certainly give a potential market at least four times as great for our outfit as for new receivers.

H. J. POWER,  
Harold J. Power, Inc.

Medford, Mass.

## Demonstrations and Credit Or Cash Sales

Editor, *Radio Retailing*:

I HAVE gone through the January, 1928, number of *Radio Retailing* with careful attention and your editorial on page 60 entitled "Is Anybody Making Money" prompts me to write this story to you. I have also read the "Merchants Who Have Made Radio Pay" series and find that they are all operating on a large scale and have many ways to make this fine pay.

For the last year and a half we have made radio pay, and in a very simple manner. In the first place, I am a reasonably small dealer, the town is small and there are three other dealers in this city which at times makes it hard for the line to pay. However, we have good distributors who carry the stock for us. We maintain a good representation of the 2 lines carried, but NOT a surplus stock.

Second, we do not encourage every one to purchase a radio. If we think that a customer cannot afford a radio, we show him the line but do not encourage him to purchase a set, because we have found that it is only courting trouble.

Third, we have two prices on our sets, the first is the regular list price, plus installation cost and the other price is cash price for the set which is the list price less 10 per cent.

We started in the radio game when parts and building of sets were the mainstay. We had a man in charge who could talk radio from end to end and in terms that would stagger the ordinary man. We found that this was NOT what was wanted, but a man who could talk in terms that the customer could understand. We now talk of the concern making the set and of our place behind the set. That alone will sell sets for you.

Then we carried a line of sets which were soon "dumped" on the market, and we stopped that. The following year, we cleaned out the parts and handled another line of sets which went over big. No trouble at all. Same applied the next year. But

*Radio Retailing*, March, 1928

the next year this same concern made a set that would not function in this territory and we had a lot of trouble. We still have some of the sets, as the concern said that as long as they worked all right some place, they should work all right here, and that the trouble was not theirs. This was our second loss.

The following year we changed the make of B batteries that we were carrying. This went along fine for awhile and then we had about six cases that were no good. After placing them on a set they would stand up about 30 days and then go bad. We changed back to our original battery and replaced these poor ones. In this case neither the distributor nor the manufacturer would do anything, so we chalked up another loss.

After this we started to look for good distributors and good sets. Up to this time we have not had a great deal of trouble with demonstration hounds as most of them come under the next explanation.

The following season we stocked two good reliable sets and started our advertising campaign in full force. We took in trade-ins and started the cash discount price with our sets and found at the end of the year we were getting along fine.

I know that I will be criticized because of the loss, but it only figures down to about the price of installation. And it does come much better the other way. The party will ask us, "How much for this set complete?" We say \$157.00 includes everything. Then we talk along on the set and mention that we are offering a 10 per cent discount for cash inside of 5 days from installation. That appeals right away and I want to say that for October, November and December of 1927 we had just one party take the long price instead of the cash price.

Now you can figure that up for yourself. Say carry \$1,000 on your books for 3 months to a year and see what it costs. Then ring up \$900.00 IN CASH on your cash register and figure the difference. On top of that, we do not get send backs, as the party owns the set.

We still have places in this city where some of the dealers will leave the sets in for an unknown time, counting them sold, and we have known these same parties to return them after six to nine months. We will NOT do business this way. We would rather sell 10 sets a month and get the cash than to sell 20 sets a month and have them all uncertain.

Do you think we are making money in this game? We do, but we wouldn't be if it were not for our methods.

R. A. STILLWELL,  
Stillwell's Bazaar.

Big Rapids, Mich.

## We Are Glad to Help

Editor, *Radio Retailing*:

YOU will be interested, I am sure, in the result of a reader in the December issue of *Radio Retailing* regarding the RMA Interference Manual, "Better Radio Reception," the handbook written in popular vein by Mr. Robert J. Casev, on home-made remedies for home-made static troubles of the listeners-in.

In the short time since publication of this article in the technical service department of *Radio Retailing*, this office has received by mail, from Florida to Seattle, Washington, and by telephone, 125 orders for "Better Radio Reception." As the Interference Manuals are distributed at the cost of production, the only commission I can offer to you is this appreciation of the advertising service and broad circulation in the trade of *Radio Retailing*.

BOND P. GEDDES,  
Executive Vice-President,  
Radio Manufacturers' Association.

New York City.

## Support the Radio Commission

Editor, *Radio Retailing*:

THERE are too many broadcasting stations, too much heterodyning and distortion. This thing should have been foreseen six months ago.

Let's get enough sentiment behind the Federal Radio Commission to support it in any drastic action that it may deem best for the benefit of the industry and the public as a whole.

KINNEY BROS. RADIO.  
San Diego, Calif.





*Within your set slumbers a world of music.*



*Your old set will sound like this after you hear our latest model.*

# for Merchants' Advertising

*get some valuable suggestions from this collection of phrases gleaned from newspaper advertising*

*Our many years of radio experience have taught us just what kind of a set will best meet your needs.*

\* \*

*Every element entering into the making of these receivers is carried out with the utmost attention to perfection of results.*

\* \*

*A receiver for those who want to enjoy at a moderate cost the advantages and satisfaction that accompany a high-class outfit.*

\* \*

*When confusion reigns in the air and station overlaps station on the tuning dial, you will find that a Blank Receiver will bring in the stations without the difficulties of "cross-talk."*

\* \*

*With . . . . . tubes that elusive station can now be brought in and enjoyed with "local" volume and smoothness.*

\* \*

*It pays in convenience and reliability as well as in dollars and cents to use . . . . . batteries.*

\* \*

*To these unparalleled features are added—extra tube life, more hours of service and an actual increase in efficiency.*

\* \*

*Gives rich and full-toned reproduction at all volumes with perfect preservation of those delicate tone-colorings that are so essential to the fullest musical enjoyment.*

*Do you want more stations on that storage battery set of yours? Do you want the far-away ones you get now to come in more easily and regularly?*

\* \*

*You pay a low price, but get a receiver that would cost considerably more elsewhere.*

\* \*

*"Your old set will sound like this after you hear our latest model."*

\* \*

*Every tube in your set counts; use the best straight through the set.*

\* \*

*Within your set slumbers a world of music.*

\* \*

*Each set gives the utmost in radio enjoyment for its price.*



*Every tube counts—use the best throughout.*

# “Legally NOT

## But What About The



*Legally you may turn away a dissatisfied customer but—*

*A Michigan Court recently decided against a dissatisfied purchaser of a set who was sued by the dealer*

within the legal phase of the contract. But, if the customer is still dissatisfied with the set, or any of its accessories, is the dealer morally free to ignore his complaints? What is more, is he morally free to ignore his responsibility to his fellow merchants and create an enemy to the trade?

Take, for example, a recent Michigan law suit, *Cool versus Fighter*, 214 N. W. 162, in which just such a condition is brought out. In this case a customer wanted to purchase a radio set and called on a radio merchant in his locality. In the interview the customer told the merchant that the selection of the set would be left to his judgment. Acting on this, the merchant delivered to the customer a certain, highly recommended set, but after it had been installed it failed to give satisfaction.

WHETHER a customer puts fifty dollars or one thousand dollars into a radio set what he wants is satisfaction, and if the set fails to give it a large sized kick may be in order. In such a situation, the disappointed buyer will usually turn first to his dealer and demand an accounting. This then raises the question of the liability of a radio merchant to make good where a set sold by him *does not satisfy the buyer*.

The dealer may do all that he feels he should do within the limitations imposed by the price of the set. He may satisfy all the claims of the customer that come

In this situation, the merchant made several attempts to better the set but did not meet with success. The customer ordered the radio removed and declined to pay for it. A dispute followed which culminated in the instant action by the merchant to recover the amount due on the account.

In defense to this action, the customer attempted to prove that the merchant had warranted the radio to give satisfactory results, and that it would receive from any station in the United States. However, the customer did not produce any writing to that effect, and his evidence

# RESPONSIBLE

## Moral Responsibility?

*for payment—but, any dealer's responsibility is far more fundamental than mere legal technicalities.*

merely tended to show that the merchant had said that if he were installing a radio it would be this make. In other words, he recommended this particular radio, and stated that the company making it stood behind it.

On this state of facts, the trial of the case resulted in a judgment in favor of the merchant for the price of the radio. From this the customer appealed, and the higher court in reviewing the record, and in passing upon the question of whether or not the evidence showed an express warranty on the part of the merchant, said:

### THE LANGUAGE OF THE COURT

“WE think the court was right in holding that the express warranty counted upon was not proven. The most that can be claimed from the evidence is that the defendant ordered the radio upon the recommendation of the plaintiff, which in effect was that the defendant deemed it to be the most desirable. It was not guaranteed to receive any and all stations on all occasions.

“We take judicial cognizance of the fact that at the time of purchase, radios were by no means perfected, and that many things entered into the success of their operation. A station that could be received plainly one day might not be heard at all on the next. Condition of the batteries, dry cells, and other parts of the set affected



*—have you not a moral responsibility to keep every customer satisfied?*

its operation, and weather conditions always entered into the situation. Defendant knew but little about radios. This was then true of almost everyone. Claims of supremacy of many different kinds and makes were made by manufacturers.

“The manufacturer made them in this case, and defendant relied upon his friend's recommendation. The fact that he was dissatisfied with the selection does not warrant recession. Radio receiving sets have always been and still are more or less unsatisfactory, and will

*(Please turn to page 78)*

# HOW *a*

The Harry Alter Co.  
1732 So. Michigan Ave.  
CHICAGO

Sept. 17, 1927.

Rayn Mawr Music Shop,  
2102 E. 71st St.,  
Chicago, Ill.

Dear Sir:

We are pleased to advise that contingent credit has been passed to your account with us in the amount as indicated below, applicable to your time sales contracts which we have turned over to the Electrical Finance Co.

It is expressly understood that should any of these contracts prove uncollectible that it is our privilege to return them to you, charging back your account for replacement of contract in an equal amount as collected or a withdrawal from our reserve fund withheld on contracts or demand for settlement in cash as per our original contract.

Our Acct. No.	Customers Acct. No.	Contract No.	Reserve	Service Charges	Credit to Name Your Acct.	
1098	601		\$52.50	\$5.05	\$2.50	\$44.75

B.P. Mostow

The Harry Alter Company, Chicago, enables its trade to handle deferred payment contracts by financing them through a subsidiary company.

The letter used to advise the dealer of contingent credit placed to his account upon acceptance of the dealer-customer sales contract by the finance company.

FEW radio merchants will dispute the fact that sets must be "sold" to the customers and that with this need for intensive selling the necessity has also arisen for offering them time payments. The problem for the merchant seems to be how he can finance these time payment sales and, at the same time, conserve his capital for replenishing his stock.

The Harry Alter Company, a Chicago distributor, is solving this problem for its dealers by assisting them in increasing the volume of their gross sales through the offering of deferred payment accommodations to prospects, and in helping them to meet their obligations to their jobber, through the Electrical Finance Company, a subsidiary concern.

This subsidiary company was formed in the fall of 1927. To date, 90 per cent of the dealers buying from the parent organization are using the services of this subsidiary or have applied for permission to do so.

The purpose of the Electrical Finance Company is threefold: to permit the dealer to offer extended terms to those financially responsible; to enable him to keep his working capital intact and available for operating and sales promotional purposes; and to create with the dealer's credit directly proportional to sales.

These last two factors are made possible by a clause in the jobber-dealer financing contract which places to the dealer's credit with the Harry Alter Company the full amount of each installment sales contract—less finance charge and 10 per cent reserve—as soon as it reaches the latter party.

Since the dealer receives and retains a 25 per cent down payment he is provided, as soon as the sale is con-

01-ORIGINAL

### SALES CONTRACT

To: \_\_\_\_\_ Dealer \_\_\_\_\_ Date \_\_\_\_\_

Town and State \_\_\_\_\_

Street \_\_\_\_\_

QTY	MODEL NO	SERIAL NO	DESCRIPTION	MANUFACTURER
			RADIO RECEIVER SET	
			TUBES	
			TUBES	
			"A" BATTERIES	
			"B" BATTERIES	
			"C" BATTERIES	
			BATTERY CHARGER	
			BATTERY ELIMINATOR	
			AERIAL EQUIPMENT	
			LOUD SPEAKER	

I or we jointly and severally acknowledge delivery of the above described articles and agree to pay you, your successors or assigns, on terms hereinafter mentioned at \_\_\_\_\_ Street in the city of \_\_\_\_\_ State \_\_\_\_\_ or at such place as the legal holder hereof may in writing appoint, the sum of \$ \_\_\_\_\_ dollars, as follows: \$ \_\_\_\_\_ dollars, to the following installments on dates as hereinafter indicated:

Due Date	Amount	Due Date	Amount	Due Date	Amount
10	\$	10	\$	10	\$
11	\$	11	\$	11	\$
12	\$	12	\$	12	\$

It is agreed that on default in the payment of any installment due hereunder the balance then hereunder shall thereupon become due and payable on demand at the discretion of the legal holder hereof.

It is agreed that the title and ownership of the above described articles are to remain in you, your successors or assigns until all of the said purchase price is fully paid in cash and thereupon, the title thereto shall pass to the undersigned.

In the event of a default in the payments due hereunder I or we jointly and severally agree to pay a reasonable attorney fee if this instrument is placed for collection; I or we and each of us, jointly and severally, do hereby waive protest or notice of maturity or non-payment of payment and hereby consent to the extension thereof from time to time without notice to the undersigned, and hereby waive any and all notice of whatever kind or nature and waive the exhaustion of all legal remedies thereon.

IN CONSIDERATION WHEREOF, and to secure the payment of said amount, I or we jointly and severally, hereby authorize irrevocably, any attorney of any court of record, to appear in such court in term time or vacation, at any time hereafter, and confess a judgment without process in favor of the holder of this instrument for such amount as may appear to be unpaid hereon, together with costs and attorney fees of reasonable sum, and consent to immediate issue of execution, to waive and release all errors and irregularities that may occur in entering judgment thereon, and further agree that an appeal or writ of error shall be prosecuted on the judgment by virtue hereof, nor any bill in equity filed to interfere in any manner with the operation of said judgment or execution issued thereon.

AND further to secure the payment of the said amount, the undersigned hereby sells, transfers, assigns, and sets over unto said \_\_\_\_\_ (his) successors and assigns, all salary, wages, commissions, and all compensation of every kind and nature, and all claims therefor, both earned at the date hereof and to be earned during a period of five (5) years thereafter, and all claims and demands due or to become due to the undersigned from the person, firm, or corporation by whom the undersigned is employed at the date hereof or from the heirs, executors, administrators, successors, or assigns of such present employer, or from any other person, firm, corporation, organization or official by whom the undersigned may hereafter be employed, or who may owe the undersigned money for any consideration or upon any demand whatsoever, both at the date hereof and for a period of five (5) years thereafter, and the undersigned hereby authorizes and directs said employers to pay all said demand and claims to you, your successors and assigns.

The undersigned agrees to take good care of the above articles and be responsible for all loss or damage, fire or other casualties and not to remove them from the place of residence of the undersigned located at \_\_\_\_\_ City of \_\_\_\_\_ State of \_\_\_\_\_ until written consent thereof is obtained from you and assigns.

It is understood that no other agreement, oral or written, expressed or implied, shall bind the undersigned in violation of this contract. Time is of the essence of this contract.

WITNESSED \_\_\_\_\_ 10 Signed \_\_\_\_\_ (SEAL)

ACCEPTED \_\_\_\_\_ Signed \_\_\_\_\_ (SEAL)

(dealer)

(by individual partner or officer)

The dealer-customer sales contract on the reverse side of which is the customer's reference record and the clause with which the contract is assigned to the subsidiary finance company.

summed, with working capital for operating expenses. The unpaid balance contract enables him to obtain additional merchandise for future sales the day it is recorded by the Harry Alter Company.

### USE CONTRACTS AS CASH

COMMENTING on the acceptance of time-payment contracts as cash, Mr. Litt, credit manager for both the parent and the subsidiary companies, declares that of the 2,600 individual purchase contracts so far handled in

# Distributor Finances

# TIME PAYMENTS

By RAY V. SUTLIFFE

**PURCHASERS STATEMENT**

To \_\_\_\_\_ (dealer) Date \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

For the purpose of securing credit from you in connection with my purchase of articles as described in sales contract amounting to full purchase price of \$ \_\_\_\_\_ of which \$ \_\_\_\_\_ is paid on account, and the balance in \_\_\_\_\_ payments, I make the following representations which shall be considered as continuing.

Full Name \_\_\_\_\_ Age \_\_\_\_\_ Married \_\_\_\_\_

Residence \_\_\_\_\_ City \_\_\_\_\_ Phone No. \_\_\_\_\_

Landlord \_\_\_\_\_ Residence \_\_\_\_\_ Phone No. \_\_\_\_\_

Occupation \_\_\_\_\_ Company Name \_\_\_\_\_ Department \_\_\_\_\_

Address \_\_\_\_\_ Phone No. \_\_\_\_\_ Salary \$ \_\_\_\_\_

How long employed \_\_\_\_\_ Name lodge or society \_\_\_\_\_

If employed less than one year by above give previous employer \_\_\_\_\_

Occupation \_\_\_\_\_ Company Name \_\_\_\_\_ Department \_\_\_\_\_

Address \_\_\_\_\_ Phone No. \_\_\_\_\_ Salary \$ \_\_\_\_\_ How Long Employed \_\_\_\_\_

Checking account with \_\_\_\_\_ Bank \_\_\_\_\_

Savings account with \_\_\_\_\_ Bank \_\_\_\_\_ Branch \_\_\_\_\_

Trade references (with whom BUSINESS HAS BEEN TRANSACTED RECENTLY)

No.	Name	Address	Phone
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____

Signed \_\_\_\_\_ (Purchaser)

**TO BE SIGNED BY THE DEALER**

For value received, the undersigned hereby sells, assigns, and transfers to THE ELECTRICAL FINANCE COMPANY, (not Inc.) 541 N. Ogden Avenue, Chicago, Ill., its successors or assigns, all right, title and interest in and to this agreement, the amount payable thereunder and the property therein described.

The undersigned warrants that this agreement was executed in connection with the sale of merchandise described in the within sales contract, said merchandise having been delivered to and accepted by the buyer named therein and that there is now owing thereon the amount as set forth therein.

For value received, the undersigned hereby unconditionally guarantees payment of the within contract, in all its terms, including interest, attorney fees, court costs and all other expenses in connection therewith, and waives presentment and demand for payment, protest and notice of protest for non-payment, and consents that extensions of time of payment may be granted the maker without notice to and without releasing the liability of the undersigned hereunder.

Signed \_\_\_\_\_ (SMAL)

By \_\_\_\_\_ (officer-partner-owner)

WITNESS \_\_\_\_\_ (REAL)

Address \_\_\_\_\_

Dated at \_\_\_\_\_ IS \_\_\_\_\_

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

The customer's reference record and the clause in the sales contract by which it is assigned to the subsidiary finance company for credit for merchandise on the dealer's account.

this manner there have been but two instances when it was necessary to draw on the 10 per cent reserve fund to protect the jobber against collection losses.

The following example shows how this plan operates:

Amount of Sale	\$250.00
Down Payment (25 per cent required under this plan)	62.50
Balance	\$187.50
*Finance Charge (10 months)	13.13
Insurance Premium (one per cent of unpaid balance)	1.88
Amount of Contract	\$202.51

Policy No. DPG \_\_\_\_\_ Policy Date \_\_\_\_\_ 192\_\_

Application for Deferred Payment Guaranty Policy based upon the following statement of facts.

Name? \_\_\_\_\_ (Full Name) Age? \_\_\_\_\_ Height? \_\_\_\_\_ Weight? \_\_\_\_\_

Occupation \_\_\_\_\_ Employed by? \_\_\_\_\_

Business Address? \_\_\_\_\_ No. \_\_\_\_\_ Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

Residence? \_\_\_\_\_ No. \_\_\_\_\_ Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

Have you ever had fits or disorders of the brain? \_\_\_\_\_ Are you in whole and sound condition mentally and physically? \_\_\_\_\_

Do you carry any other insurance in this Company? \_\_\_\_\_

Signature of Applicant \_\_\_\_\_

598 A-5M-427

Customer's application for policy to insure payments in case of sickness or death on the part of the purchaser.

Immediate Credit Established with Jobber  
(Contract, less 10 per cent reserve, finance charge and insurance premium) ..... \$167.25

\*The Harry Alter Co. charges 4 per cent of unpaid balance for four months terms, 5 per cent for 6 months, 6 per cent for 8 months and 7 per cent for 10 months.

## COLLECTIONS

“OUR collection system,” says L. L. Litt, “is a plan whereby the dealer is kept in touch with his customers during the collection period. We make the collections, as a general thing, but send carbons of our notices, or of collection letters, if these are necessary, to the dealer. It is an arrangement in which the dealer and his wholesaler work hand in hand in business building by establishing a firmer basis for credit relationship.

Under this plan the jobber, through its subsidiary finance company, mails collection notices to the dealer's time-payment customers before each installment becomes due. In case the customer does not pay his installment

five days after receipt of notice, a second notice is mailed, a copy of which is sent to the dealer. If the payment is still not forthcoming five days later, a third notice is sent with a copy to the dealer suggesting that he remind his customer to make his installment payment. Ten days later, if collection is not received the dealer is advised and is expected to collect from his customer direct or make good the unpaid balance with the jobber.

The Electrical Finance Company does not send out any objectionable collection letters. Under its plan

(Please turn to page 74)

# *Locating and Correcting*

# TROUBLE

# *in A.C. Operated Sets*

BY FREDERICK J. KAHN

RADIO broadcast receiving sets in which the new A.C. tubes are used are of such recent design and development that it is almost impossible to enumerate definitely all of the shortcomings or causes of trouble which may develop in a receiving set of this type.

If excessive A.C. hum is noticed, it generally means that either the power-supply unit or the receiver itself is not properly balanced, or else defective tubes are being used. In the majority of sets an adjustment is furnished, commonly called a "hum adjuster." This device is usually a potentiometer. It is used to compensate for any slight variations in the transformer windings and enables the operator to obtain a perfect electrical center tap in these windings. Once this adjustment is made it never need be changed unless tubes are changed or the set is connected to a different A.C. line.

Quite often the "hum adjuster" will not remove the A.C. hum entirely. It is then generally necessary to replace the detector tube or one of the radio frequency tubes, or reverse the polarity of the plug at the source of the A.C. supply. In some locations a poorly grounded A.C. line will tend to increase the hum and if such a condition exists in the locality it may be advisable to have the local power company reground the line in use. The only other cause for excessive A.C. hum is the breaking down of one of the choke coils or one of the filter condensers in the power pack, and by replacing either of these items, or else the entire power pack, the trouble can be eliminated.

Fortunately, however, there are but very few occasions where it is necessary to make any repairs or replacements in the power packs supplied with commercially built sets, as the manufacturers of these receive-

ers generally allow a wide margin of safety in the power supply units.

Noises in battery-operated sets have generally been caused by defective accessories or poor connections, but in the case of A.C. sets noises caused by other electrical equipment on the same power supply line are more pronounced, as these noises are introduced into the set through the A.C. line.

Where these disturbances are too great, a simple method of reducing them consists of a double outlet plug with the set attached to one side and condenser of from two to four Mfd., having an operating voltage of 200 volts A.C., connected to the other side. Of course a poor contact in the set itself, whether it be a poorly soldered one or a tube socket spring bent out of shape, will contribute a great deal towards a set being noisy. Electric refrigerators, oil burners for furnaces and electric heating pads have been found to be the worst offenders.

If a set fails to produce a reasonable volume of signal strength, generally the first thing to look at is the tubes.

If it is impossible to have them thoroughly tested with the proper equipment, one may take a good tube and try it in various sockets, noting any difference in signal strength between it and the tube it replaced.

If the tubes are all found to be satisfactory, it is then advisable to check the installation and make sure that the antenna and ground used are perfect. Next check the speaker, and last of all test with a high resistance voltmeter the various output voltages of the power pack.

When testing the power pack, it always is advisable to test the A.C. line voltage and

*THE major troubles which have already presented themselves in A. C. receivers may be listed as follows:*

A. C. Hum  
Noises  
Weak Signals  
Fading Signals  
Poor Tone  
Tubes Burning Out  
Prematurely

*How to locate and remedy these interferences with good reception is explained in this article.*

then set the switch on the primary windings of the power transformer to the corresponding voltage. This, of course, assuming that the transformer has a tapped primary to allow for different line voltages.

With the primary windings properly adjusted, test with a high resistance voltmeter the taps on the transformer secondaries which supply the filament voltages to the various tubes. These voltages should be as follows:

- For the '26 tubes approximately 1.75 volts.
- For the '27 tube approximately 2.25 to 2.5 volts.
- For the '71 tube approximately 5 volts.

Lower voltages than these will, in all probability, be the cause for weak signals. These should be increased to the correct value either by changing the tap on the power transformer primary or else reducing the resistance in the filament circuit.

Low voltages in the B-supply, particularly in the radio frequency circuits, will greatly reduce the volume of signal and can almost always be attributed to a broken down output resistance unit in the power pack. Occasionally, the rectifier tube has been found to be the cause of low voltages and by merely changing the tube correct voltages are obtained.

There are but few causes for signals to fade and they consist mainly of the signal itself fading due to atmospheric conditions, variations in the A.C. line voltages, loose connections in the filament supply circuit, either in the wiring or in the rheostat assembly, or else the power tube is partially paralyzed.

Poor tone can be caused in a properly designed set or speaker by the failure of the power tube to handle the volume. Also some people do not take into consideration the limitations of radio tubes and attempt to force them to deliver an abnormal amount of volume, with the result that they get the volume with very poor tone quality, as the tubes have become overloaded.

If a great deal of volume is required, do not expect any set using the '71 type of tube to satisfy your needs but obtain a power cone speaker of the electro-dynamic type, using a '10 tube as the power tube. This will make possible much more volume without distortion.

The rapidity with which certain types of A.C. tubes burn out has been noted with interest. The tube which has caused most of the trouble has been the detector, and in practically every case tests have proven that the tube itself was at fault, most likely due to a weakness in its construction. Specifications as originally supplied by the tube manufacturers called for an operating voltage of 2.5 volts, on the heater of the detector tube. Subsequently, however, the specifications were changed by the tube manufacturer, and now call for a maximum of 2.25 volts. A longer life should be obtained if these tubes are operated between 2.0 and 2.25 volts. Set manufacturers are now taking these facts into account in the design of new equipment and this source of trouble should soon be reduced to a minimum.

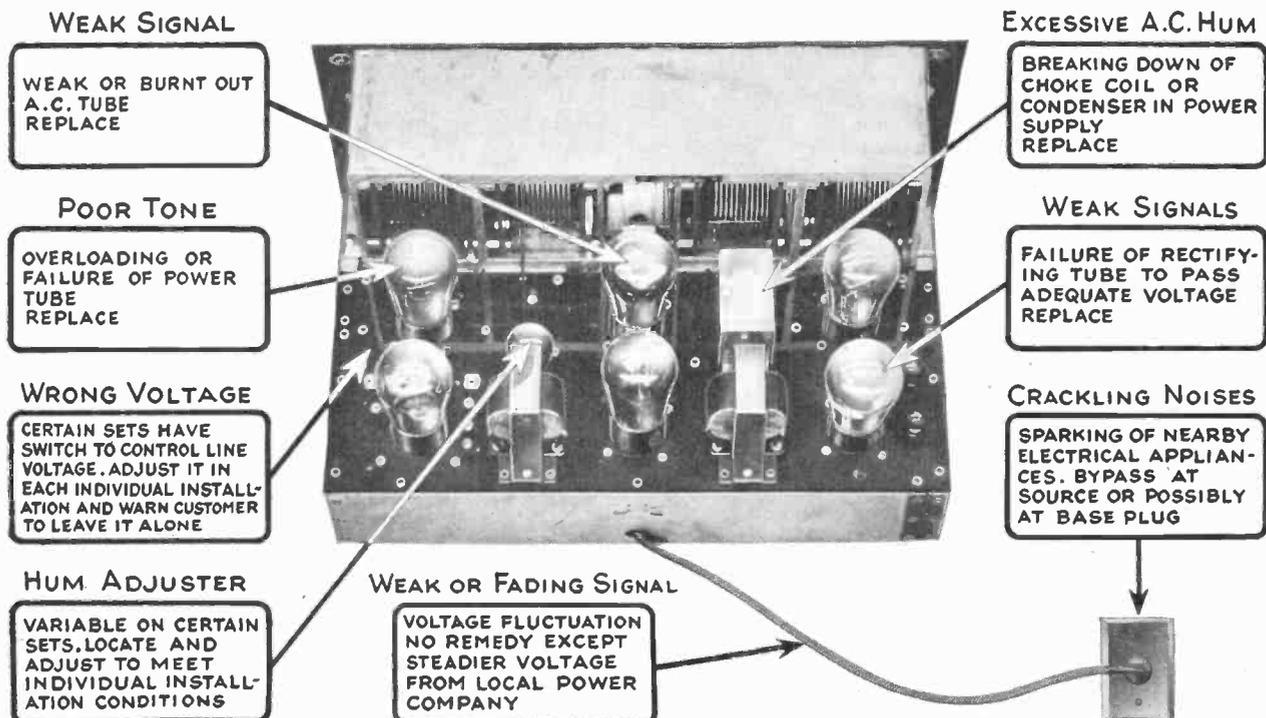
In a survey recently made on several thousand A.C. operated sets, it was found that over 80 per cent of the trouble was either in the installation or in the accessories used with the set, and that less than 5 per cent of it was within the set itself. The balance was due mainly to minor adjustments or the inability on the part of the owner to operate the set properly due to lack of understanding.

One important thing to remember is that A.C. operated sets are essentially the same as their predecessors, the battery-operated sets, with one major exception. That is the tubes. So if you are ever called upon to service a set of a commercial make, do not begin by tearing it apart. First start with the equipment used with the set, and then last of all take the set chassis from the cabinet. By doing it this way a great deal of unnecessary work will be eliminated.

## PRACTICAL SERVICE METHODS

*A monthly department of "Radio Retailing" for dealers and service men*

Conducted by  
**HENRY W. BAUKAT**  
Technical Editor

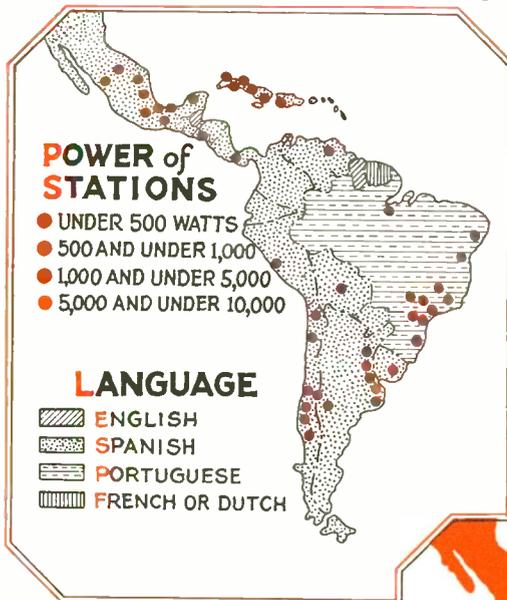


# Radio Exports to

Prepared exclusively for "Radio Retailing"

By H. E. WAY

Assistant Chief, Electrical Equipment Division,  
U. S. Department of Commerce



*Due to unsettled conditions in Europe, South America offers a most attractive market for American radio apparatus. Condition of markets in Southern Hemisphere outlined*

**L**ATIN AMERICA is not an area of teeming millions or great industrial centers. Development has not progressed as rapidly as in the Northern Continent because of hindrances not encountered by the English speaking countries of the North Temperate Zone. The story of this retardation is familiar to students of American history and need not be recounted here. As a result this area is shipping to the remainder of the



world agrarian and pastoral products. Some manufacturing is done but manufactured articles are mostly imported.

The Latins quickly took advantage of the new application of radio, so that today there are probably in excess of 2,500,000 who enjoy the programs of 117 stations, which have a total capacity of approximately 48,000 watts. The stations with the exception of a few very small ones are within the broadcast band as recognized in the United States. Accompanying is a list of the major stations. The map illustrates the estimated coverage and the location of the stations.

Total 1927 Radio Exports to Latin America in \$ (by Country and Type of Equipment)

Country	Radio Receiving Set Accessories	Radio Receiving Set Components	Radio Tubes	Radio Receiving Sets	Radio Transmitting Sets and Parts	Total Equipment by Country
British Honduras.....	349	54	82	760	500	1,745
Costa Rica.....	1,927	624	1,795	1,348	411	6,105
Guatemala.....	2,239	1,072	306	1,941	.....	5,558
Honduras.....	7,547	829	1,094	1,393	21,545	32,408
Nicaragua.....	1,601	444	215	195	196	2,651
Panama.....	6,191	5,666	5,629	2,855	1,825	22,166
Salvador.....	802	563	472	3,385	.....	5,222
Mexico.....	33,978	29,771	7,880	63,013	3,523	138,165
Barbados.....	120	621	.....	128	13	882
Jamaica.....	875	1,209	743	3,162	.....	5,989
Trinidad & Tobago.....	681	889	110	349	.....	2,029
Other British West Indies.....	533	970	199	3,468	568	5,738
Cuba.....	26,599	14,261	19,651	17,452	21,877	99,840
Dominican Republic.....	907	2,236	225	3,310	29,011	35,689
Dutch West Indies.....	496	1,115	309	802	853	3,575
Haitian Republic.....	1,783	1,535	1,017	4,335	.....	8,670
Argentina.....	135,956	471,852	117,257	453,475	51,014	1,229,554
Bolivia.....	186	364	304	2,129	.....	2,983
Brazil.....	66,207	134,224	56,012	91,540	18,271	366,254
Chile.....	10,799	10,542	11,898	15,005	2,172	50,416
Colombia.....	2,577	8,958	10,249	2,441	14,060	38,285
Ecuador.....	77	562	139	267	39	1,084
British Guiana.....	33	224	33	260	.....	550
Dutch Guiana.....	104	69	.....	.....	.....	173
Paraguay.....	117	218	68	62	.....	465
Peru.....	1,705	5,088	4,255	3,416	109	14,573
Uruguay.....	27,194	33,541	17,486	111,830	26,131	216,182
Venezuela.....	7,063	10,899	3,623	1,309	2,932	25,826
<b>TOTAL.....</b>	<b>338,646</b>	<b>738,400</b>	<b>261,051</b>	<b>789,630</b>	<b>195,050</b>	<b>2,322,777</b>
<b>GRAND TOTAL.....</b>						<b>2,322,777</b>

# Latin America INCREASING

*Some facts and figures concerning the actual past exports and future possibilities of the market for American-made radio apparatus in our sister countries of South America*

THE trend of shipments of radio apparatus to the whole of Latin America has shown a slight upward tendency since 1923. Tropical regions have taken increasing amounts. Shipments to Semi-Tropical regions have been declining. Although there is no region strictly comparable with the United States and Canada, Argentina, Chile, and Uruguay have been designated South Temperate. At present, per capita exports of radio to them amount to four cents annually, while to the Semi-Tropical and Tropical, shipments average two and one cent a unit of population. An examination of these amounts indicates that United States sales are distributed fairly according to the possibilities of the markets.

For the most part home-built sets are not popular. The shipments of components to Argentina are highest during June, sloping off to minimums. In Brazil, the other country making considerable purchases, buying is distributed uniformly throughout the year.

(Please turn to page 77)

## How Latin American Exports Have Grown



1923  
\$1,386,965



1924  
\$1,445,091



1925  
\$1,470,791



1926  
\$1,698,023



1927  
\$2,322,777

## Latin American Broadcasting Stations

City	Call	Wave Length Meters	Power Watts
CUBA			
Havana.....	PWX	400	500
Havana.....	ZOL	257	100
HAITI			
Port au Prince....	IHK	361.2	1,000
MEXICO			
Chihuahua.....	CZF	310	250
Mazatlan.....	CYR	475	250
Merida.....	CYY	548	100
Mexico City.....	CYA	300	500
Mexico City.....	CYB	275	500
Mexico City.....	CYH	375	100
Mexico City.....	CYJ	400	2,000
Mexico City.....	CYL	400	500
Mexico City.....	CYO	425	100
Mexico City.....	CYX	325	500
Mexico City.....	CZE	350	500
Monterey.....		311	250
Oaxaca.....	CYF	265	100
Puebla.....	CYU	312	100
Tampico.....	CYQ	322	100
Torreón.....	CYM	225	1,500
Vera Cruz.....	CYC	337	50
Vera Cruz.....	CYD	...	...
SALVADOR			
Salvador.....	AQM	482	500
SOUTH AMERICA			
ARGENTINA			
Buenos Aires.....	B2	275	100
Buenos Aires.....	D3	253.3	100
Buenos Aires.....	LOJ	270	1,000
Buenos Aires.....	LOL	236	2,000
Buenos Aires.....	LON	210	5,000
Buenos Aires.....	LOO	252	1,000
Buenos Aires.....	LOQ	261	500
Buenos Aires.....	LOR	344.8	1,000
Buenos Aires.....	LOS	291.2	5,000
Buenos Aires.....	LOT	400	1,000
Buenos Aires.....	LOV	361.5	1,000
Buenos Aires.....	LOW	303	1,000
Buenos Aires.....	LOX	380	1,000
Buenos Aires.....	LOY	315.8	1,000
Buenos Aires.....	LOZ	330	1,000
Cordoba.....	H5	275	100
Cordoba.....	H6	250	20
La Plata.....	LOP	425	1,000
Mendoza.....	LOU	380	500
Rosario.....	F2	270	100
Santa Fe.....	F1	279	20
BOLIVIA			
La Paz.....		175	50
La Paz.....		300	50
BRAZIL			
Bahia.....	SQAD	350	50
Juiz de Fora.....	SQAY	380	200
Pernambuco.....		310	300
Rio de Janeiro.....	SQAA	400	2,000
Rio de Janeiro.....	SQAB	320	500
Rio de Janeiro.....	SQAJ	260	250
Sao Paulo.....	SQAB	225.4	1,000
Sao Paulo.....	SQAG	365	1,000
Sorocaba.....		425	...
CHILE			
Antofagasta.....	CHAO	...	...
Concepcion.....	CMAI	345	1,500
Santiago.....	CMAC	360	1,200
Santiago.....	CMAD	320	1,000
Santiago.....	CMAE	280	100
Tacna.....	CMAT	550	200
Talcahuano.....		245	100
Temuco.....	CMAK	365	100
Valparaiso.....		400	50
PARAGUAY			
Asuncion.....		...	12
PERU			
Lima.....	OAX	360	1,500
URUGUAY			
Montevideo.....	CWOF	300	100
Montevideo.....	CWOG	280	10
Montevideo.....	CWOR	350	500
Montevideo.....	CWOS	380	500
VENEZUELA			
Caracas.....	AYRE	375	1,000

# Radio Retailing

A McGraw-Hill Publication

MARCH, 1928  
Vol. 7, No. 3

# Radio FURNITURE in This Year's

## Concerning Furniture Harmony

"BUT this console isn't the same period as the rest of the furniture in my living room," exclaims Mrs. Brown.

How can the radio dealer, who cannot afford to carry a full line of the better cabinets—in all the wide ranges of styles and finishes now in vogue, meet this objection?

By explaining to Mrs. Brown the two basic principles of furniture harmony. The first is: Furniture of a common origin may safely be grouped. And the second: The lines of the various pieces should be of the same general character. By this is meant that curved line furniture harmonizes, likewise pieces whose lines are predominantly straight will look well in the same room.

The principle, "Curved lines do not as a rule go with straight lines," is a mighty good rule to follow. If your customer has a room full of the curved type of furniture do not place therein a radio cabinet that is given to straight lines. Much of the English period furniture harmonizes perfectly with the Colonial of our own period.

The merchant does not have to make a special study of furniture to be assured of not making a mistake when advising a prospect. Your eye will tell you the proper combination just as your ear tells you about radio set performance.

\* \* \*

## The Dealer as a Human Being

The following ad recently appeared in the "Saturday Evening Post." It was sponsored by the N. W. Ayer Advertising Agency of Philadelphia, and says a few important things about dealers that are worth repeating:

### "ASK YOUR DEALER"

IN THAT WORD, "your," lies the key to the tremendous importance of the dealer in the distribution of merchandise. He is your center of supply. He is often your friend or acquaintance. Your own purchases are influenced by his selection of stock. You are inclined to trust his judgment.

And your dealer knows you. He studies you, your likes and dislikes, income and credit. He cultivates your trade. He is careful to play fair. He wants no mistakes made, in buying or selling or service, that will alienate you. He wants to sell you merchandise that has merit, for he wants you for a permanent customer.

There are many products that have merit, and that are also well advertised. Then why should the dealer be particularly receptive to merchandise that seeks a place on his shelves simply because it is advertised? We see no reason why he should. We agree with the dealer that merit in the goods is his first consideration.

Advertising has become a powerful factor in distribution. It is an aid to sound merchandising. It is a

means of assisting the dealer, wholesale or retail, to dispose of his stock in a shorter time and in larger quantities. But the advertising of a product, regardless of its merit, does not constitute a valid reason why your dealer should stock it and sell it to you.

Multiply your retail dealer by 1,200,000, add 15,000 wholesalers, and you will begin to realize the complexity of distribution. All these dealers sell some advertised merchandise. They prefer to sell it, if it has merit. How to induce them to stock and sell this merchandise, how to do business with them in a mutually profitable manner—these are questions that are of first importance to the majority of manufacturers and advertisers.

And the first step toward solution is to recognize that dealers are not red and blue pins in a sales map—but people. . . . Friends of yours; and dependent upon you, your trade and your confidence, for their advancement in their chosen fields of business.

\* \* \*

## Only the Aggressive Merchant Will Survive

"THE day is past when the dealer who 'sits and waits' can expect to maintain a position in the radio industry, much less make a profit," the sales manager of a well-known radio set manufacturer wrote us recently. He was reporting his observations gained on an extensive swing around the country. He observed a growing tendency toward creative selling.

"Retailers everywhere were eager to learn and ready to use any selling helps available, either from the manufacturer or the jobber," he said, and continued, "but I repeat, the merchant who doesn't keep posted on modern merchandising practices will surely fall before the pressure of increasing competition."

The pages of *Radio Retailing* are devoted, above all else, to supplying just this information. "How will this article help the dealer?" is the thought uppermost, always, in the minds of its editors.

But, to profit by the wealth of suggestions contained in each issue, the paper must be read—carefully and analytically.

\* \* \*

## Time Payment Financing Another Justification of Jobber's Existence

AT a dealer-jobber radio convention recently held, the address which received the most applause, and which created the most discussion, was delivered by the vice-president of a prominent contract purchase corporation. His subject was: "The Business Building

# is **I**MPORTANT Sales Plans

Opportunities that the Installment Plan Has Created for the Radio Dealer."

For the past eight months one of the largest radio jobbers in Chicago has been operating a subsidiary finance corporation. To date 90 per cent of the dealers served by this jobber have applied for the privilege of discounting their time payment paper through this jobber-operated finance company. Time paper handled in this manner is applied to the dealer's credit with this wholesale house.

There is an insurance clause in the customer's contract, supplied by this subsidiary concern, which reads, "If during the life of this contract, the purchaser is disabled by sickness or accident, his monthly payments, during that period of disability, will be maintained by the insurance company guaranteeing these specific payments. In case of death, the heir to the estate will receive a paid-in-full bill of sale for the entire amount of this obligation."

This insurance clause is optional and is written into the contract upon payment of 1 per cent of the amount of the time payment contract. This clause, it is stated, has already proved a strong talking point, and has greatly stimulated the retail sale of radio sets by those dealers who are using it.

Both these financial houses report their collection loss as less than  $\frac{1}{2}$  of 1 per cent. This is indicative of the sound character of radio paper.

The specific advantages of the conservative use of the time payment plan, as enumerated by a dealer who has developed a business of \$145,000 per annum operating on this basis, are as follows:

1. Increases gross volume.
2. Makes available a wider market.
3. Safer than "Open account" or the note method of granting credit.
4. Permits the dealer to obtain immediately sufficient cash on each transaction with which to discount his bills.
5. Creates an opportunity for frequent contact with customers.

The policy of jobbers in aiding their dealers to finance time payment paper, described elsewhere in this issue, is one that is strongly recommended for serious consideration by all distributors.

\* \* \*

## "Checking Up Every Set" Is an Opportunity for Parts Dealers

DEALERS, particularly those who sell parts, should take advantage of every opportunity to make calls on owners of receiving sets bought in the past, in order to check up the receiver, and see what parts it is necessary to replace in order to bring the receiver up-to-date. It is a sad fact that the majority of dealers are not taking advantage of this business, which is theirs to be had for the asking. At present there is too much of this

Furniture Knowledge  
Human Beings, Unfortunate Noises  
Jobber Financing, Survivors

and other things discussed  
by the editors

business going to individuals, found in every community, who have taken up radio as a sideline in order to furnish themselves with a little extra money. They are installing new types of audio-frequency amplifiers, volume controls, new radio-frequency transformers, and even going as far as selling new speakers and speaker filters. It is up to the legitimate radio dealer to get this business for himself by persistent house-to-house calls.

\* \* \*

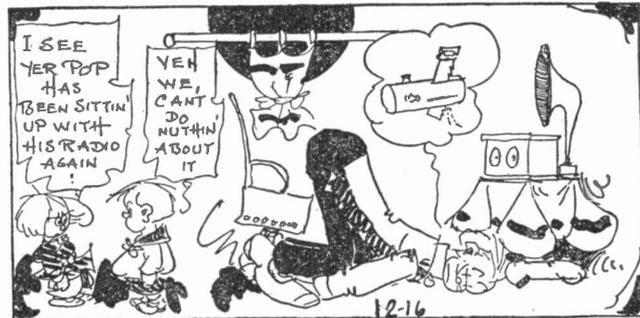
## Clicks and Cracks

ONE of the things to remember about line-power or A.C. sets is that sparks, caused by turning on and off electric lights, will be heard in the speaker. This is not a new disease but it is now being brought into prominence because of the increasing use of alternating current receivers. A very sensitive battery operated set will also pick up this type of interference, with less intensity of course.

Therefore, when your clients complain of sharp clicks in the speaker, explain carefully that the A.C. set is very sensitive to sparks originating on the line as the wires carry the noise directly to the receiver, amplify it and reproduce it, and that such noises are not the fault of the receiver.

## TRAGIC EXPERIENCE OF A DX HOUND

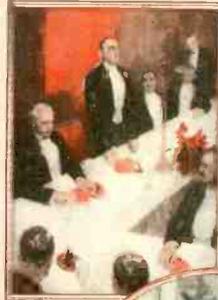
S'Matter Pop - - - - - By C. M. Payne



Copyrighted, the Bell Syndicate, Inc.

# Tried-Tested-Perfected-

Let Radiola 17 report for you  
the great events of the year



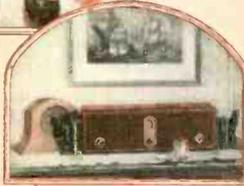
Plug it into the electric outlet  
and you are in touch with the world

**RADIOLA 17** will take you to concert halls and theaters, to public platforms and political conventions, to the arrival of ambassadors and presidential spears. It will report for you the great events of the year—just as if you were there.

The programs of the big broadcasting stations in your town, continued at the touch of a button. Radiola 17—the wonderful broadcast receiver now has revolutionized the radio industry—in the millions of years of research by the great staff of electrical and mechanical engineers in the laboratories of the Radio Corporation of America and in its associated companies, General Electric and Westinghouse, the same engineers who designed and built the high-power broadcasting stations.

Because of its extreme simplicity of operation—combined with the fidelity of voice reproduction that has made Radiola famous—Radiola 17 is the most popular Radiola ever offered.

RADIO CORPORATION OF AMERICA  
New York Chicago San Francisco



**RCA Radiola**  
MADE BY THE MAKERS OF THE RADIOTRON

The four great weeklies—*Collier's*, *Liberty*, *Literary Digest* and *Saturday Evening Post*—will carry page and double page RCA sales advertising through 1928 Newspaper advertising in all the leading cities of the country.

These Radiolas have set the standard  
for realism in broadcast reception  
—and simplicity in operation



**RADIOLA 17** (complete) is the most complete and most realistic broadcast receiver ever designed and constructed. It is a radio that makes itself understood and is the only one that can be understood by the millions of people who are listening to the radio today.



**RADIOLA 17** has set the standard for realism in broadcast reception and simplicity in operation. It is the only radio that can be understood by the millions of people who are listening to the radio today.

**RCA Radiola**  
MADE BY THE MAKERS OF THE RADIOTRON

## RADIOLA 17



expertly designed...ruggedly built  
for fine performance and long life

**RADIOLA 17** has set the standard for realism in broadcast reception and simplicity in operation. It is the only radio that can be understood by the millions of people who are listening to the radio today.



**RCA Radiola**  
MADE BY THE MAKERS OF THE RADIOTRON

## RADIOLA 17



Acclaimed the country over for its  
marvelous simplicity and performance

A few months ago the Radio Corporation of America, after ten years of laboratory work, announced the production of a radio receiver designed for the masses. It was the Radiola 17.



**RCA Radiola**  
MADE BY THE MAKERS OF THE RADIOTRON

This sign marks the leading dealer in every community



# RCA Radiola

MADE BY THE MAKERS OF THE RADIOTRON

-and first in public favor



RADIOLA 17—Pioneer of the new receivers employing the RCA alternating current Radiotrons. Most popular of all Radiolas. Equipped with Radiotrons \$157.50



RADIOLA 32—Finest Radiola ever designed. The famous RCA Super-Heterodyne with the incomparable RCA Loudspeaker 104. For AC or DC operation from lighting circuit. Complete \$895



RADIOLA 30A.—Custom-built cabinet model of the super-selective RCA Super-Heterodyne with loudspeaker. For either AC or DC operation from lighting circuit. Complete \$495

RADIO CORPORATION OF AMERICA NEW YORK CHICAGO SAN FRANCISCO

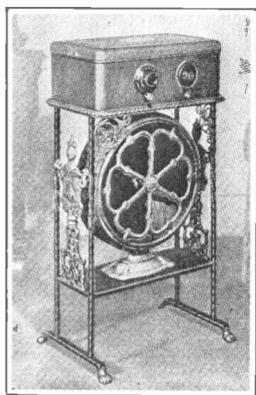
# RCA Radiola

MADE BY THE MAKERS OF THE RADIOTRON



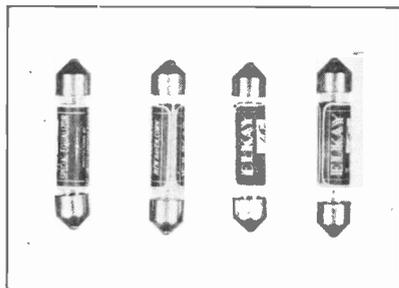
# What's New in Radio and

This editorial section is prepared purely as a news service, to keep readers of "Radio Retailing" informed of new products.



## Console Table

The illustrated console table is built especially for the Atwater Kent No. 37, by the Albert Wahle Co., Inc., Metropolitan and Morgan Streets, Brooklyn, N. Y. It is made of metal and finished in a neutral shade of antique brown with side panels of antique gold, harmonizing with the home furnishings. It weighs 30 lb. and stands 36 in. overall. The intended retail price is \$18. This company also make a metal table especially designed for the Radiola 17, finished in antique green and gold. The overall height is 36 in.; shipping weight 31 lb. The intended retail price is \$21.50. Consoles for the Kolster No. 6-J and Crosley No. 704, are also included in this line of metal tables. — *Radio Retailing*, March, 1928.



## Filament Resistors for Shielded Grid Tubes

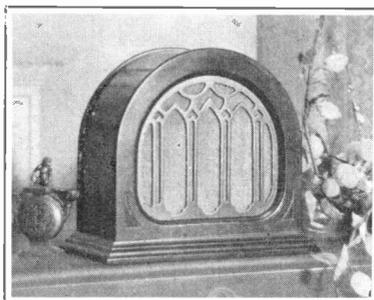
The Langbein-Kaufman Radio Company, 62 Franklin Street, New Haven, Conn., has just placed on the market two resistors or "suppressors," as this company calls them, of 5 and 15 ohms. These are designed to be used from a 6-volt source with the shielded grid tube, in order that the proper bias recommended by the manufacturer be furnished without further adjustment. — *Radio Retailing*, March, 1928.

## Air Column Horns

The Racon Electric Company, Inc., 18 Washington Place, New York City, is making a complete line of air column horns in all sizes and shapes. The air columns range from 36 in. to 104 in. and the prices are from \$5 to \$15. If desired a Baldwin Rival Unit can be supplied at \$7 additional. — *Radio Retailing*, March, 1928.

## Cabinet Speaker

A cabinet speaker, known as table model No. 20, is the latest product of the Rola Company, Oakland, Calif. This speaker has a laminated armature, wound for the particularly heavy plate currents of the all-electric set. According to the manufacturer there can be no magnetic saturation of the armature. The unit is also equipped with a filter to suppress tube distortion. It is said that the frequency range covered is from 70 to 5,000 cycles. It is further claimed that the unit cannot be blasted or rattled at any volume obtained on an a.c. set and that due to the characteristic curves of the speaker there is a tendency to suppress and minimize the slight hum found in most a.c. sets. The speaker is finished in a hand-rubbed walnut, and stands 11½ in. high, 11½ in. wide and is 6½ in. deep. The intended retail price is \$35. — *Radio Retailing*, March, 1928.



## Adaptor Harness

The Carter Radio Company, Chicago, Ill., is making a harness to be used with A.C. tubes for converting battery operated sets to A.C. operation in conjunction with a suitable power supply. A hum adjuster and provision for supplying the correct bias to the various tubes is incorporated in this harness. — *Radio Retailing*, March, 1928.

## Output Transformer

The illustrated output transformer is the latest product of the Farrand Mfg. Co. Inc., Long Island City, N. Y. Use of this unit allows high voltage to be placed on a power tube in the last audio stage without danger of burning out the speaker windings. The intended retail price, complete with cord for connection to the receiving set, is \$6.50. — *Radio Retailing*, March, 1928.

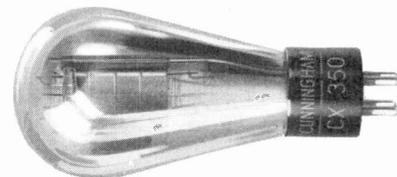


## New Burl Walnut Celoron Panels

A beautifully designed Burl Walnut Grain, for radio panels, has been announced by the Celoron Company, of Bridgeport, Pa. This announcement is made in conjunction with their announcement of a new grade of Celoron known as Grade 10-R which has exceptional electrical and mechanical qualities. This combination gives a beautiful panel, practically free from surface leakage and with great mechanical strength, making it possible to use a thinner piece of material than has been possible heretofore. — *Radio Retailing*, March, 1928.

## Power Amplifier Tube

A new power amplifier tube, known as the CX-350 is being placed on the market by E. T. Cunningham, Inc., 370 Seventh Avenue, New York City. This is designed for use in the last audio frequency amplifying stage of transformer coupled amplifiers. With this tube it is necessary to use an output filter to protect the speaker. The filament draws 1½ amperes at 7½ volts, and other specifications are at a maximum of 450 volts — negative grid bias 84 volts, plate current 55 milliamperes, plate resistance (a.c.) 1,800 ohms, mutual conductance 2,100 micromhos, voltage amplification factor 3.8, and maximum undistorted output 4,650 milliwatts. The intended retail price is \$12. — *Radio Retailing*, March, 1928.



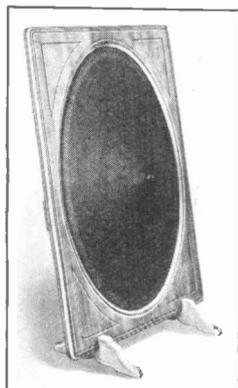
## Speaker Coupler

Anything that can be done to improve tone quality in radio reception is fully worthwhile. The new Bremer-Tully speaker coupler, manufactured by the Bremer-Tully Mfg. Company, Chicago, Ill., accomplishes this purpose. The same transformer designing ability which has so increased the popularity of factory-built Counterphase Receivers contributes equally in this unit. It can be placed on the table or mounted inside of the radio cabinet or the speaker cabinet as may be found convenient. No tools are required. The terminals of the speaker cord are simply inserted into the receptacles of the speaker coupler. The installation is easy and convenient. — *Radio Retailing*, March, 1928.

# Where to Buy It

All announcements appearing on these pages are published without advertising considerations of any kind whatsoever.

Wire wound grid leak, grid suppressors, new panel material, A.C. testing instruments and large power amplifier tubes among items announced by manufacturers this month.



## Cone Speaker

The Farrand Manufacturing Company, Inc., Long Island City, N. Y., has added the illustrated reproducer, known as the "Concert" speaker, to its line of radio products. This speaker is enclosed in a frame of walnut and stands 22 in. high. The manufacturer claims that it will reproduce the bass tones perfectly, while retaining the high notes. The intended retail price is \$35.—*Radio Retailing*, March, 1928.

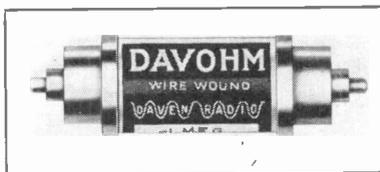


## Radio Cabinets

A new and complete line of moderately priced radio cabinets has been placed on the market by the Aston Cabinet Manufacturers, 1223 W. Lake Street, Chicago, Ill. The tops, sides, front mounting panels and grille panels of these cabinets are made of 5-ply walnut, with a high-lighted finish in lacquer. Each model has Old English door pulls and knobs, dull copper hinges and screws. Model No. 205, illustrated, will accommodate a mounting panel 9 3/8 in. x 25 in., with a depth of 15 1/2 in. It weighs 120 lb., and has an intended retail price of \$120. The mounting panel dimensions, weight, and price, respectively, of the other models are as follows: Model No. 201, 9 in. x 18 in., depth for set 14 1/2 in., 80 lb., \$59.50; No. 202, 9 in. x 18 in., depth 13 1/2 in., 85 lb., \$82.50; No. 203, 10 in. x 26 1/2 in., depth 15 1/2 in., 120 lb., \$110; No. 206, 9 3/8 in. x 25 in., depth, 14 1/2 in., 120 lb., \$120; No. 207, 9 3/8 in. x 25 in., depth 14 1/2 in., 120 lb., \$112.50; No. 208, 9 3/8 in. x 25 in., depth 14 1/2 in., 120 lb., \$115; No. 209, 10 1/4 in. x 26 1/2 in., depth 15 1/2 in., 115 lb., \$125; No. 210, 10 1/4 in. x 26 1/2 in., depth 15 1/2 in., 115 lb., \$120; No. 211, 9 in. x 24 in., depth, 16 1/2 in., \$169.50; No. 212, 9 in. x 24 in., depth 16 1/2 in., 150 lb., \$179.50.—*Radio Retailing*, March, 1928.

## Wire Wound Grid Leak

A new clip-mounting type of wire wound resistor, in values up to five megohms, has been placed on the market by the Daven Radio Corporation, Newark, N. J. It is claimed that this unit is immeasurably non-inductive and possesses minimum distributed capacity. It was originally designed for engineers and laboratories, but is now available to manufacturers and set builders. Because of its sturdy construction, accuracy, low temperature co-efficient, and ample current carrying capacity, the "Super-Davohm," as it is called, is especially suited for plate voltage regulation. It is 2 in. long and 3/8 in. in diameter. It may be obtained in values from 500 to 5,000,000 ohms, with a price range of from \$1.50 to \$25.—*Radio Retailing*, March, 1928.

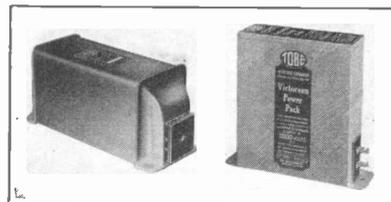
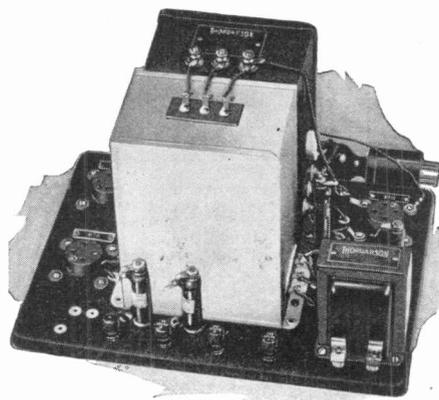


## Moisture-Proof Extension Cord

Realizing that noisy or scratchy reproduction is often due to poor speaker cord, the Birnbach Radio Company, 254 West 31st St., New York City, has added to its line of cords and cables, a rubber covered speaker cord in lengths of 10, 20, 30, 40, 50 and 100 feet. This rubber covering safeguards against dampness getting into the conductors, causing a scratching noise in the speaker or reducing the volume materially. The outer covering comes in brown mercerized cotton, or silk in the following colors—white, old gold, and maroon, to match the furnishings of the home.—*Radio Retailing*, March, 1928.

## Power Amplifier Kit

The illustrated 210 power amplifier kit is made by the Thordarson Electric Manufacturing Co., Chicago, Ill. The metal base cord is equipped with all sockets and binding posts mounted. All screws, nuts, soldering lugs and hook up wire required for the complete assembly are also supplied with this metal chassis. '10 and '16-B tube are used. The fibre insulator on the under side of the baseboard has all sub-panel wiring clearly marked.—*Radio Retailing*, March, 1928.



## Condenser Blocks

Condenser blocks as illustrated are being marketed by the Tobe Deutschmann Company, 11 Windsor Street, Cambridge, Mass., for use with the various popular circuits. The first group, which is designed for use with transformers made by the Samson Electric Company are priced as follows: The Hi-Q for use with the Hi-Q Power Supply—\$16.50. The No. 718 for use with either 1 or 2 No. 171 Tubes in push-pull—\$26.00. The No. 210 for use with either one or two No. 210 tubes in push-pull—\$38.00. The second group, the Victorean Condensers, are known as Nos. 601, 602, and 604. These have intended retail prices of \$2.50, \$3.50 and \$6.00, respectively.—*Radio Retailing*, March, 1928.



## Portable A-C. or D-C. Set Analyzer

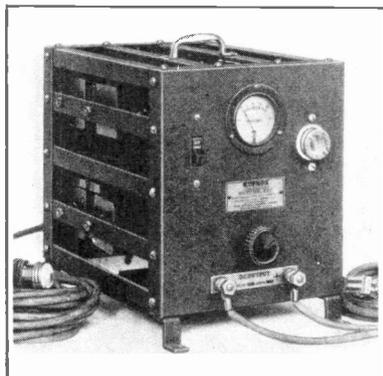
The illustrated instrument known as "Jewell No. 137 Radio Set Analyzer, made by the Jewell Electrical Instrument Company, Chicago, Ill., will make on A.C. sets, tests on four-prong A.C. tubes, five-prong A.C. tubes, Kellogg A.C. tubes and line voltage and filament transformer voltage. It will make D.C. tests on all D.C. tubes, filament supply, batteries or A-power units, plate supply batteries or B-power units, plate current total or per tube, grid voltage and circuits for continuity. It consists of three meters covering A.C. voltage of 0-3, 0-15 and 0-150. D.C. voltages of 0-10, 0-50, 0-100, and 0-500 on a 1,000 ohm per volt meter and D.C. milliampere ratings of 0-10 and 0-100. It measures 4 1/2 in. by 8 1/2 in. by 10 in. and weighs 6 1/2 pounds. The intended retail price with five adaptors and two three-foot test leads is \$115.—*Radio Retailing*, March, 1928.

## Correction Item

The lamp speaker described on Page 71 of the January issue of *Radio Retailing* credited to the Apex Electric Mfg. Company, 1410 West 59th St., Chicago, Ill., was in error, as the company does not make a radio speaker.

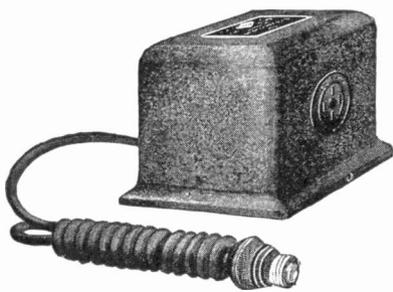
## Six-Volt Battery Charger

The illustrated Kuprox portable constant potential rectifier, for home or individual use in charging batteries, is made by the Kodak Radio Corporation, Cincinnati, Ohio. It is simple to install, with only two wires to connect, and contains no moving parts, liquids, or bulbs, depending entirely upon the rectifying properties of Kuprox, a metallic rectifying element.—*Radio Retailing*, March, 1928.



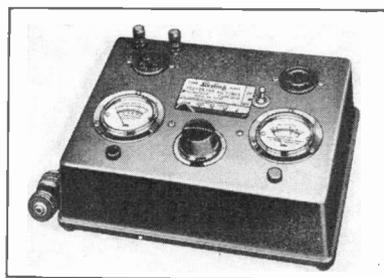
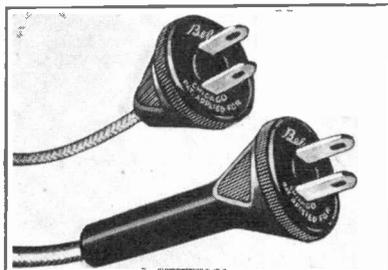
## Automatic Charger and Switch Combination

Swan-Haverstick, Inc., Trenton, N. J., is making what is known as an automatic A-power unit for use on 110 volt, 60 cycle current. This is an automatic charger and switch combination which is permanently connected to the storage A-battery, house current and B-power supply. It is a full-wave charger operating at three-quarters of an ampere and according to the manufacturer, is entirely automatic in every way and contains no liquid or tubes. Intended retail price is \$12.50.—*Radio Retailing*, March, 1928.



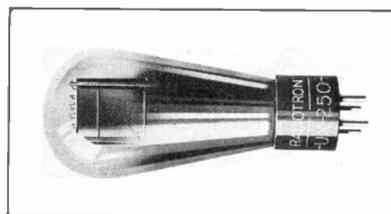
## Soft Rubber Plug

The Belden Manufacturing Company, 2300 S. Western Avenue, Chicago, Ill., is now making a new soft rubber plug. This plug is ruggedly constructed of solid, soft rubber and can be dropped, knocked about or stepped on without injury. It is shaped to form a convenient grip for the fingers when plugging-in or pulling out. This plug is only sold attached to Belden cords which come in 10, 20 or 50 foot lengths.—*Radio Retailing*, March, 1928.



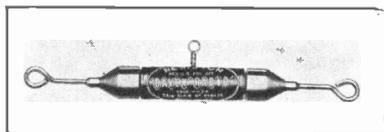
## Tester for A.C. Tubes

A tester for A.C. tubes has been developed by The Sterling Manufacturing Company, Cleveland, Ohio. Although the internal design of the Sterling A.C. tube tester differs from that of D.C. tube testers, its outward appearance is much the same. Both emission and grid performance tests are indicated on the combination meter, which has a plate milliamperage scale of 0-15 milliamperes, and emission of 0-100. The filament voltmeter scale is 0-15 volts, with divisions as specified on tube maker's carton. To operate the tester, connect to a 110 volt A.C. line, set the switch lever at the correct operating voltage shown on the selective plate, and adjust rheostat to apply the voltage shown on filament voltmeter.—*Radio Retailing*, March, 1928.



## Power Amplifier Tube

The Radio Corporation of America, 233 Broadway, New York City, has placed on the market a new power amplifier tube known as UX-250. This is designed for use in the last audio frequency amplifying stage of transformer coupled amplifiers. With this tube it is necessary to use an output filter to protect the speaker. The filament draws 1½ amperes at 7½ volts, and other specifications are at a maximum of 450 volts—negative grid bias 84 volts, plate current 55 milliamperes, plate resistance (a.c.) 1,800 ohms, mutual conductance 2,100 micromhos, voltage amplification factor 2.8, and maximum undistorted output 4,650 milliwatts. The intended retail price is \$12.—*Radio Retailing*, March, 1928.



## Center Tap Resistor

To minimize the hum in electrified receiving sets, many manufacturers incorporate center tap A.C. filament resistors. The value of these resistors ranges from 2 to 60 ohms, depending upon the number of tubes and the current supply. Efficiency of these center tap resistors depends upon how closely the tap approaches a true electrical center for grid return connections. To this end, the Daven Radio Corporation, Newark, N. J., has developed a wire-wound center tap A.C. resistor, that is wound from each end inward, with the two matched windings connected at the mid-point. Resistors of this type, illustrated, are now available to set constructors for application in any circuit calling for 10, 25 and 60 ohm sizes.—*Radio Retailing*, March, 1928.

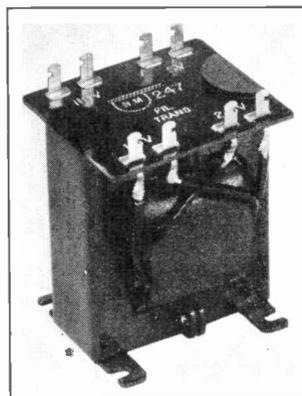
## Large Speaker Unit

The new "Powertone" unit, which the Powertone Electric Company, 220 Fulton Street, New York City, has just placed on the market, is of the large horseshoe magnet, direct-drive type. It has a 4 in. magnet, highly magnetized, the poles of which terminate at the ends of the laminated pole pieces which are made of thin laminations of a high grade imported magnet steel. A 5 in. pin is fastened to the armature by a new process, making a secure joint at all times; and preventing the pin from becoming loose according to the manufacturer. The base is of moulded aluminum. A 10 foot silk cord is supplied with each unit. The intended retail price is \$5.50.—*Radio Retailing*, March, 1928.



## Filament Transformer

Silver-Marshall, Inc., 846 West Jackson Blvd., Chicago, Ill., is making the illustrated transformer, designed to be used in conjunction with a harness in rewiring battery operated sets for a.c. tubes. Its overall dimensions are 3½ inches high, 2½ inches wide and 2¼ inches deep. The primary voltage may range between 105 and 120, but at a normal rating of 115 volts the transformer will provide 1½ volts at 4 to 5 amperes, 2½ volts at 4 amperes, and 5 volts at 1 ampere. The intended retail price is \$5. To manufacturers in 1,000 lots it will sell for \$1.25 net.—*Radio Retailing*, March, 1928.

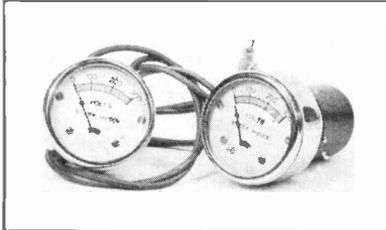


## A.C. Wire Kit

A hook-up wire kit for A.C. receivers has been added to the line of radio wire accessories made by the Belden Manufacturing Company, 2300 So. Western Avenue, Chicago. The "Colorubber A.C. Wire Kit," as it is called, consists of a black twisted pair of Colorubber insulated hook-up wires for the 1½ volt filament circuit, a yellow twisted pair for the 2½ volt circuit, a red twisted pair for circuits of five volts or more, and a coil of green Colorubber hook-up wire. The conductors are made of flexible tinned copper and a cotton makes stripping for soldering easy.—*Radio Retailing*, March, 1928.

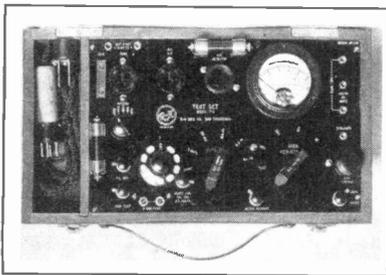
## Socket Test Meter

The latest product of the Beede Electrical Instrument Company, 136 Liberty Street, New York City, is a socket test meter. This instrument checks up the strength of the battery and the power unit and also indicates the power losses due to open circuits or deterioration of tubes. To determine if the tubes are taking too much current or receiving too little, simply place the test meter in the socket of each tube in turn. It can be used on all types of sets, including those electrically operated, and takes the same amount of current as the tube. The intended retail price is \$2.50. Also made without the base plug.—*Radio Retailing*, March, 1928.



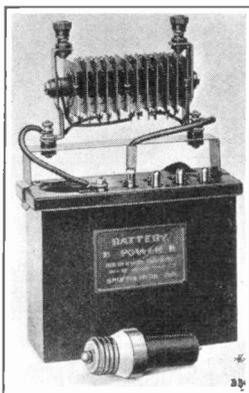
## Radio Test Sets

Radio test sets which make complete tests of any kind on either A.C. or D.C. sets are made by the R-K Manufacturing Company, 333 Produce Exchange Building, New York City. In addition to any use the A.C. or D.C. meters may be put to some of the other tests are complete continuity tests, speed power unit load test, test for full and half wave rectifiers, trickle and 2 amp. chargers and a tone generator for aligning single dial control sets by what is called the gain meter method. Weston meters are used and model V-7 which is equipped with two meters has intended retail price for \$115. Model V-5 which has one meter has intended retail price of \$96. Practically the same tests can be performed on both instruments.—*Radio Retailing*, March, 1928.



## Tungar Rectifier Unit

The Kodol Radio Corporation, Cincinnati, Ohio, is manufacturing a new Kuprox all-metal replacement unit for Tungar rectifiers, making it unnecessary to use a bulb of any type. This unit uses twelve Kuprox discs, is all metal, dry, and contains no moving parts. To operate, simply screw the plug into the socket where the Tungar bulb was formerly used and turn on the switch.—*Radio Retailing*, March, 1928.

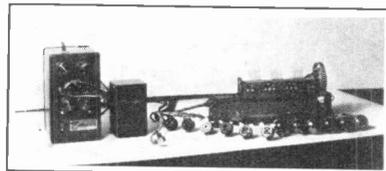


## Writing Desk Console

A console in the form of a writing desk, designed especially for radio use, is now available. This desk, which is made by the International Equipment Company, 1324 Chestnut Avenue, Kansas City, Mo., will accommodate the Radiola 17, Atwater Kent 37, Crosley Bandbox, as well as all chassis from 7 in. x 18 in. to 7 in. x 26 in. It is made of genuine American black walnut, with a four-way matched panel. The drop-lid, when opened, discloses the radio set, and at either side are compartments to take care of the usual desk necessities. The grille, backed with figured silk, is removable for easy access to the equipment. A 72-inch air-column horn, rubber cushioned, and a Utah unit are furnished. There is ample room for batteries, power units, chargers, or other power accessories. The over-all size of the desk is 29½ in. long, 38½ in. high and 17 in. deep and the intended retail price without speaker is \$50; with speaker, \$65.—*Radio Retailing*, March, 1928.

## Dry Philco Replacement Unit

A new Kuprox, dry metallic specially constructed replacement unit for replacing the electrolytic jars on Philco units is now being made by the Kodol Radio Corporation, Cincinnati, Ohio. Sixteen small, Kuprox discs are used in this unit, which is made to suitable measurements for inserting in the space formerly occupied by the electrolytic jar in Philco power units. Intended retail price \$5.—*Radio Retailing*, March, 1928.



## A.C. Adaptor Kit

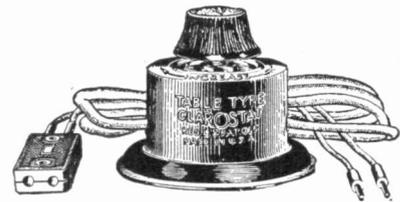
A new A.C. kit, designed to convert, with little or no alteration, the Radiola 16 D.C. receiver into an A.C. outfit, using A.C. tubes, has just been placed on the market by the Kingston Products Company, Kokomo, Ind. The power supply, wiring changes, etc., are all taken care of in the kit itself, so that the actual installation is very simple. No soldering operation is necessary and no changes are made in the actual wiring arrangement of the original set. The kit consists of the following assembly, sold complete, ready to install: Kingston Type 2, B-current supply unit, a special A.C. transformer and C-bias supply, adaptors, volume control rheostat, cable and approved A.C. switch. The transformer has four separate windings, one for the R. F. or '26 tubes, one for the '27 detector, one for the first audio tube and a 5-volt winding to light the '12-A power tube. All the amplifier tubes are supplied with negative grid bias which is necessary to give best operation and greatly prolongs the life of the tubes. Volume control is obtained by the use of a low-resistance rheostat placed in the filament circuit of the three R. F. tubes.—*Radio Retailing*, March, 1928.

## Complete A.C. Adaptor Equipment

An A.C. adaptor unit designed to convert battery operated sets into a.c. receivers without rewiring or altering the set in any way is being made by the Warford Electric, Inc., 42 Whitehall Street, New York City. The adaptors fit into the tube sockets, making it possible to use A.C. tubes. The unit comes complete with transformer and control switch. The control switch turns the set on and off, as it controls the A and B-power. The transformer changes the 110-volt house lighting current into the various proper A-voltages for the A.C. tubes. It is furnished complete with all the necessary harness. Any type of B-supply can be used with this outfit. The intended retail price of a complete unit for a six-tube set is \$18.25 less tubes.—*Radio Retailing*, March, 1928.

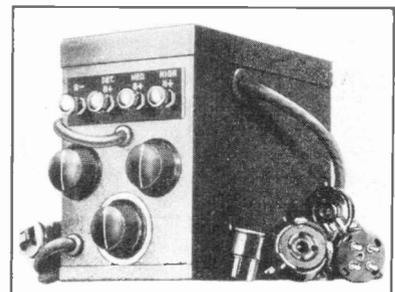
## Table Type Volume Control

A table type clarostat comprising a variable resistor from approximately zero to 500,000 ohms mounted in a neat metal stand together with two flexible conducting cords provided with standard cord tips as well as a connection block is being made by the American Mechanical Laboratories, 285 N. Sixth Street, Brooklyn, N. Y. The metal case is finished in nickel and bronze with a Bakelite knob. The bottom is provided with a soft belt pad to protect furniture. This instrument provides a good volume control for usual speaker alongside of the set or as a remote control and may also be employed as a volume control for electric phonographs. If desired it can be used in connection with the A.C. tube harness. Intended retail price is \$2.50.—*Radio Retailing*, March, 1928.



## A.C. Adaptor Unit

The Sterling Manufacturing Company, 2831 Prospect Avenue, Cleveland, Ohio, has placed on the market what is called the "AC Tri-Power," No. R-810 which supplies A, B and C voltages for sets using from 5 to 8 tubes of the A.C. type. Adaptors and complete harness cable equipment is furnished and attached to the unit so that all that is necessary is to connect up the unit and insert the adaptors, into which are inserted the A.C. tubes. Special adaptors may be had to specification for sets which vary from the standard circuit layout. The adaptors contain removable grid resistors to prevent excessive oscillation. Single switch operation is made automatic by connection to the receiver filament or by external switch, depending upon the receiver design. The power unit is finished in dark green and measures 7½ inches by 4½ inches by 5½ inches. The intended retail price of the unit without the harness is \$32. The Raytheon BH tube which is used is \$4.50 and a No. R-820 Utility Harness for 6 tubes retails for \$6. Special Harnesses may be had at prices ranging from \$6 to \$8.—*Radio Retailing*, March, 1928.



# What the Trade is Talking About

## Decision in Tube Suit Due March 15

The contention of the DeForest Radio Company, and other independent radio tube manufacturers, that the Radio Corporation of America had set up a \$10,000,000 monopoly in restraint of trade violating the Clayton Act, was recently sustained by Federal Judge Hugh Morris, Wilmington, Del., in a decision granting an injunction to the plaintiffs. The court further denied the motion of the R.C.A. for a dismissal of the bill of complaint filed by the plaintiffs, enjoining the defendant from enforcing Clause 9 of its licensing agreement.

The R.C.A. immediately petitioned for a stay until an appeal from this decision could be filed. This was granted and the case is now scheduled to come up before Judge Morris on March 15, at which time it will be decided whether the injunction will be vacated or re-issued.

The other plaintiffs in the case are the Northern Manufacturing Company, the United Radio & Electric Corporation, the Televocal Corporation and the Sonatron Tube Corporation.

## Alexanderson Patent Held Invalid in Canada

The Supreme Court of Canada at Ottawa, Ontario, has rendered judgment in a matter of great interest to the radio world.

The Fada Radio Corporation appealed from a judgment of the Exchequer Court of Canada which had decided that there had been infringement by that corporation of a valid patent known to the trade as the Alexanderson patent, the property of the Canadian General Electric Company. The unanimous judgment of the Supreme Court sustained the arguments of the Fada Corporation and declared the Alexanderson patent could not be upheld as valid.

The Canadian General Electric Company's patent, issued on February 15, 1921, was the invention of E. F. W. Alexanderson. The chief defences of the Fada Cor-

poration were that Alexanderson's device did not constitute invention and that, if it did, he was anticipated by other inventors, particularly Wilhelm Schloemilch and Otto Von Bronk in Germany. Both Alexanderson and the two Germans, working independently, adopted the vacuum tube as a relay for passing on desired signals at high-frequency from one circuit to the next without loss of the initial strength, but the Germans produced their device earlier, it was contended.

Mr. Justice Lamont, who wrote the unanimous judgment of the Supreme Court of Canada, declared: "It seems idle to contend that on February 9, 1913 (the date of the German patent), Alexanderson had, or thought he had, a completed invention. In our opinion, his invention was not completed until May, 1913." This, of course, upheld the contention of the Fada Corporation that Alexanderson's patent was invalid.

It is understood that the respondents will launch an appeal to the Privy Council at London.

## James H. McGraw Awarded Harvard Medal

The gold medal for "distinguished contemporary services to advertising" was recently awarded to James H. McGraw, president of the McGraw-Hill Publishing Company, "because of his lifelong service in the upbuilding of higher standards in the business press of the country."

This is one of the four awards founded by Edward Bok and administered by the Graduate School of Business Administration of Harvard University. It is offered in the conviction that advertising, wisely utilized, is a great economic power to broaden the markets and decrease the cost of distributing goods; but, if unscientifically employed, is wasteful to the community.

Mr. McGraw is the third person to receive the gold medal, which is the greatest honor in the series of Harvard Advertising Awards.

## Federated Forms Jobbers' Section at Milwaukee Meeting

The mid-winter convention of the Federated Radio Trade Association, held February 14 and 15 at Milwaukee resulted in the formation of a special division of the association exclusively for jobbers and distributors. The Federated, which is made up of a number of local radio trade associations throughout the country, is now divided into three sections, one for dealers, one for jobbers, and one for manufacturers' representatives, each retaining its own individuality for the working out of its own problems, yet all molded together to form the parent organization.

Officers of the main organization were elected as follows: Harold J. Wrape, St. Louis, Mo., was re-elected president; Michael Ert, Milwaukee; Julian Sampson, St. Louis; Thomas White, Buffalo, N. Y., and George Riebeth, Minneapolis, were chosen vice-presidents. Harry Corey, Minneapolis, is secretary, and Harry Alter, Chicago, treasurer.

Thomas White of Buffalo is chairman of the jobbers' section. Harry Alter of the Harry Alter Company, Chicago, is vice-chairman. They have already established five major committees, the finance committee being headed by Mr. White; the dealers relations committee, Mr. Wiebe of the Brown-Hall Supply Company, St. Louis, chairman, with Mr. Wolf, Electric Appliance Company, Chicago, and Mr. Pflager of the General Ignition Company, Milwaukee.

The manufacturers' relations committee has Harry Alter, Chicago, as chairman, with Mr. Purdy of the Geo. C. Beckwith Company, Milwaukee, and H. C. Richardson of the Young, Lorish and Richardson Company of Chicago as members.

The chairman of the membership committee is J. F. Connell of the Kruse-Connell Company, Indianapolis, with Mr. Wolf of the Electric Appliance Company as chairman of the publicity committee.

## Sampson Electric Company Conducts Pilgrimage to A-K Factory



Officials of the Sampson Electric Company, Chicago, Ill., and fifty dealers recently journeyed to Philadelphia to visit the Atwater Kent factory. Mr. Kent welcomed and addressed the delegates at a meeting in the morning of the first day.

A tour of inspection through the factory followed, and in the evening all hands went to see the fights. The next day was devoted to a sightseeing tour of the Quaker City and the Sampson Special left for Chicago that afternoon.

The executive committee is composed of Thomas White, Buffalo; Mr. Coleman of the Geo. C. Beckwith Company, Minneapolis; Martin Wolfe, Electric Appliance Company, Chicago; Harry Alter, Harry Alter Company, Chicago; Fred Wiebe, Brown-Hall Supply Company, St. Louis; J. F. Connell, Kruse-Connell Company, Indianapolis; W. H. Roth, Radio Specialty Company, Milwaukee.

Other signed members of the jobbers' section include P. D. Newell, J. H. & F. A. Sells Company, Columbus, Ohio; Charles Hunt, Hudson Ross Company, Inc., Chicago; E. R. Kimberly, Kimberly Radio Corporation, Chicago; Roy Whipple, Wakem and McLaughlin Co., Chicago; H. E. Richardson, Young, Lorish and Richardson Company, Chicago; Sidney Neu, Milwaukee; Harold J. Wrape, Benwood-Linze Company, St. Louis; James Aitken, Aitken Radio Corporation, Toledo, Ohio; H. W. Lang, Ft. Wayne Iron Store, Fort Wayne, Ind.; E. W. Pflager, General Ignition Company, Milwaukee, and Mr. Maurer, Badger Radio Corporation, Milwaukee.

Those who addressed the convention meetings included, Bond P. Geddes, executive vice-president of the Radio Manufacturers' Association; L. S. Baker, managing director of the National Association of Broadcasters, and Martin Flanagan, executive secretary of the Radio Manufacturers' Association, who talked on "Evolution."

Short talks were also made by Arthur T. Haugh, past president of the Radio Manufacturers' Association; Herbert H. Frost, past president of the Radio Manufacturers' Association; Ernest Reichmann of the Radio Protective Association, and Alfred Waller of the National Electrical Manufacturers' Association.

## R.M.A. Convention Considers Patent Inter-Change Plan

One of the most active and successful series of meetings ever held by the Radio Manufacturers' Association took place at the Hotel Pennsylvania, New York, on January 24, 25 and 26, when over two hundred members gathered to discuss the radio patent situation, broadcasting conditions, and technical engineering matters.

At the opening session, presided over by President C. C. Colby, a report from Chairman A. J. Carter, of the Patent Interchange Committee, on the progress made toward the interchange plan, was heard. Following a discussion of this subject by the members, it was announced that the formal plan would be ready for presentation at the annual convention in Chicago next June.

At the regular monthly luncheon, which followed, Federal Radio Commissioner O. H. Caldwell outlined the Commission's progress in the improvement of broadcasting and the increasing of markets for radio.

The balance of Tuesday afternoon and all of Wednesday were given over to the meetings of the various committees and sections. At a meeting of the Engineering Division, of which H. B. Richmond is director, definitions for "socket power" and "electric set" were prescribed as a guide to the public, as well as the trade. The socket power definition was adopted officially. These definitions are as follows:

"Socket-powered" as applied to a receiving set, includes any set operated from a light socket or an alternating current, a direct current, or with a self-charging battery compartment."

"The term 'electric set' includes only those sets operated from a light socket



## "Strolling Down the Shady Lane . . ."

The "baby mine" in this instance happens to be the Traveler Manufacturing Corporation, 3401 N. Halsted Street, Chicago, Ill., and the beau, who has paused for a moment on the path of progress to greet us, is J. E. Thorne, the newly appointed sales manager for the above named manufacturer of portable radio sets. Mr. Thorne has a background of over 14 years' experience in executive capacities in the electrical and automotive industries.

without the use of A or B batteries or wet cells of any description."

Important merchandising policies were considered by the Merchandising Committee, of which L. E. Noble is chairman. The problem of financing installment sales of radio was discussed and the committee took steps to develop a uniform and economic plan for the financing of installment paper.

Measures to broaden the activities of the R.M.A. and greatly extend its service to the radio public and its members were adopted at a meeting of the Board of Directors, presided over by President Colby. A movement toward the improvement of radio advertising was ordered and the suggestions of the Merchandising Committee regarding a survey of radio markets and the use of standard catalogue sheets were approved by the Board. Upon the recommendation of Captain William Sparks, chairman of the Traffic Committee, it was decided to establish a traffic bureau, under the direction of a traffic expert, with a view to securing lower freight and express rates.

Marked progress in the plans for the Trade Show and Convention in Chicago next June was reported by Major H. H. Frost, Show Committee Chairman. The Directors voted full co-operation and support to Messrs. Hermann and Irwin, who will manage the trade show.

UNITED SCIENTIFIC LABORATORIES, INC., recently moved into larger quarters at 113 Fourth Avenue, New York City.

## RCA Nets \$11,799,650 in 1927

A gross income from operations of \$65,082,074.48 and a net income of \$11,799,650.28 for the year 1927 were shown in the annual report of the Radio Corporation of America made public today. Of the net income from operations, \$2,371,330 has been set aside as reserve for federal income taxes and amortization of patents, and \$950,000 as general reserve and as reserve against foreign investments and for the employees' pension fund, leaving a net sum of \$8,478,320 to be transferred to surplus account.

The Radio Corporation's financial position is summarized in the report as follows:

Current assets have increased \$6,595,185 and exceed the current liabilities by \$22,469,297, the ratio of current assets to current liabilities being slightly more than three to one. The corporation has no bonded debt or notes outstanding.

Plant and equipment, less reserves amounting to \$7,683,634 now stands at \$6,541,612. This is after the provision of a special additional reserve of \$4,500,000 for this year, out of surplus account.

The reserve for amortization of patents, after charging off patents expired and an additional reserve of \$1,000,000 provided out of surplus account, amounts to \$7,155,641, reducing the book value of the patents to \$5,515,543.

A substantial stock interest was acquired in the F. B. O. Pictures Corporation, a large producer of motion picture films, in connection with the corporation's development of a system for the recording and reproduction of sound in synchronization with motion pictures.

## Radio Wins!

Radio now commands the electrical field after 12 o'clock, noon, each day, in Fairfield, Ia. Under a new ordinance, anyone using electrical devices, such as washing machines, vacuum cleaners, violet ray machines, etc., which interfere with radio reception, will be liable to a fine of \$100, or thirty days in jail.

THE ST. LOUIS RADIO TRADES ASSOCIATION had as its speaker at a recent meeting, R. Fullerton Place, advertising and merchandising counsellor and past president of the St. Louis Advertising Club. His subject was "Romance of Radio Selling." Mr. Place urged the members to sell entertainment rather than the mechanical side of the set as he feels that the merchant who emphasizes mechanics is overlooking one of his greatest selling features.

H. P. MANLY, who has been associated with the Thordarson Electric Manufacturing Company, Chicago, since 1924, has recently been promoted to the position of sales manager.

CLIFFORD K. BURTON, general sales manager of the Carryola Company, Milwaukee, Wis., died recently as a result of complications arising from pneumonia which he contracted a year ago. Mr. Burton was well known in Milwaukee, and, prior to his joining the Carryola company, he was connected with Klau, Van Pieter, Dunlap and Younggreen.

## 1927 Canadian Radio Figures Interesting

Radio figures for the year 1927 have been made available by the radio branch of the Canadian Department of Marine and Fisheries, Ottawa. Official statistics show that there are approximately 208,000 privately-owned receiving sets in use in the Dominion, but, owing to the delinquency of a great number of set owners in registering their sets, under the annual Federal license system, the actual number is thought to exceed that. The annual registration fee is \$1, and the revenue is devoted to the study of interference and its elimination. Canada is said to be the only country in which radio fees are devoted entirely to the improvement of air conditions. Local interference is traced by the use of a fleet of automobiles equipped with special apparatus. These cars travel from city to city as desired.

Government figures show that Toronto has the greatest number of radio sets in use, the number being 33,880; while Montreal, the largest Canadian city, has 27,982 radio sets. Each of these cities has 225 radio dealers, or merchants who handle radio as a sideline. Of the provinces, Ontario has the largest radio population, the number being 102,540, or approximately one-half of the registered radios in the Dominion.

Radio figures by Provinces, as shown by license registrations, are: Ontario, 102,540; Quebec, 41,270; Saskatchewan, 18,713; British Columbia, 14,668; Manitoba, 14,193; Alberta, 9,362; Nova Scotia, 5,123; New Brunswick, 2,865, and Prince Edward Island, 345.

Owners of radio licenses by cities of the Dominion are: Toronto, 33,880; Montreal, 27,982; Winnipeg, 7,531; Vancouver, 6,368; Hamilton, 6,482; Ottawa, 6,068; London, 3,939; Victoria, 2,832; Halifax, 1,646; Saskatoon, 1,086; Regina, 883; St. John, 822; Calgary, 860, and Edmonton, 358.

Government reports show that 425 complaints about radio interference were received in the office of the Toronto radio inspector during 1927 and all of these troubles were acted upon by the Canadian government employees. Many local interference troubles were caused by leaky insulators on power lines, power company

transformers, oil burning furnaces, battery rechargers in automobile shops and the use of electrical household appliances, it was found.

Canadian government activities have gone a long way toward helping to clarify the radio situation, thus encouraging radio sales.

## 1928 Market Data Book Ready

The 1928 edition of the Market Data Book is now ready. The data book gives complete information regarding publications, including rates, circulation, mechanical requirements and closing dates. This information is obtained from many authentic sources, such as the various departments and bureaus of the U. S. Government, trade associations and business publications. There is also a special section and index for Canadian publications. This classification enables the advertiser to select mediums through which to get coverage of the specific fields in which he is interested. The book may be obtained from G. D. Crain, Jr., 537 S. Dearborn St., Chicago, Ill.

RADIO STATION KOA, Denver, Colo., owned and operated by the General Electric Company, recently joined the network system of the National Broadcasting Company. Under a special temporary arrangement, radio programs of the N.B.C. from its New York, Chicago and Washington studios will be carried through to Denver and broadcast nightly from 8:00 to 9:30 o'clock, New York time. To make permanent arrangements for this service, it was necessary to order specially constructed radio service wires from Omaha to Denver and it is hoped that the construction of these wires by the American Telephone and Telegraph Company will be completed around July 1.

SONORA PHONOGRAPH COMPANY, INC., is now located in the Lyon & Healy Building, 64 East Jackson Boulevard, Chicago, Ill., according to a statement from A. J. Kendrick, vice-president and general sales manager. P. L. Deutsch, president of the Acoustic Products Company, Inc., and the Sonora Phonograph Company, will maintain offices at the new address.

## Home Reception of Broadcast Photos Now Possible

The broadcasting of photographs by radio and the reception of such pictures on a small and simple outfit in the home, attached to the ordinary radio receiver in much the same manner as a speaker, was recently demonstrated for the first time by the National Broadcasting Company over Station WEAJ, New York City.

This demonstration was made possible by apparatus developed by Dr. E. F. W. Alexanderson, who recently gave the radio world a demonstration of a practical home television receiver.

The equipment necessary is relatively simple, and consists, at the transmitting end, of a compact picture transmitter, in place of the microphone, which operates from a paper or film positive. Ordinary wire line or "remote control" of the transmitter is employed as usual. At the receiving end, a small amplifier and simple recorder are attached. These are actuated from the receiver without any constructional changes and with only a slight wiring modification. The present form of the picture apparatus consists merely of a small amplifier, a Moore tube of special construction, and a sheet of photographic paper, mounted on a revolving cylinder driven by a small motor.

## Detroit Radio Trade School Now Privately Owned

The Federated Radio Trade School, 4464 Cass Avenue, Detroit, Mich., has been released to private hands by the Radio Trade Association of Michigan. The school has grown rapidly from a local to a national institution and the new owners plan to enlarge its activities and scope. The officers are: Noble G. Larkins, business manager; A. M. Edwards, Director, and W. J. Schmedding, treasurer.

BANKERS-COMMERCIAL SECURITY COMPANY, INC., 270 Madison Avenue, New York City, has recently issued a pamphlet on its new plan for financing radio instalment sales. This leaflet explains in detail the plan, which, it is claimed, enables the dealer to sell instalment contracts "running longer in time and with lower down payment, at lower financing cost." Copies of this pamphlet and application blanks may be had upon request to the financing company.

WALTHAM ELECTRIC COMPANY, New York City, has opened its eighth radio store in the metropolitan district, at 143 West 125th Street, according to a statement from Walter H. Nussbaum, president.

## Pacific Radio Exposition to be Held August 18 to 25

The Fifth Annual Pacific Radio Exposition, conducted by the Pacific Radio Trade Association, will be held in the Civic Auditorium, San Francisco, August 18 to 25, inclusive.

Last year's exposition drew a record attendance but it is anticipated that this year's show will exceed it. Space rates have been materially reduced and particular attention will be given to programs to attract public attention.

The show is under the management of W. J. Aschenbrenner, and the members of the committee are: W. E. Darden, chairman; Hal King, C. L. McWhorter, and C. S. Sharrah.

## Radio Shows and Conventions

**June 11-15:** R.M.A. Convention and Trade Show, Hotel Stevens, Chicago, Ill.

**June 11-16:** N.E.M.A. Annual meeting, The Homestead, Hot Springs, Va.

**August 18-25:** Fifth Annual Pacific Radio Exposition, Civic Auditorium, San Francisco, Calif.

**September 10-15:** Second Annual Philadelphia Radio Rodeo, Commercial Museum, Philadelphia, Pa.

**September 17-22:** Fourth Annual Rochester Radio Show, Convention Hall, Rochester, N. Y.

**September 17-22:** Fourth Annual Southwest National Radio

Exposition, New Coliseum, St. Louis, Mo.

**September 24-29:** Seventh Annual Northwest Radio and Electrical Show, Municipal Auditorium, Minneapolis, Minn.

**October 1-6:** Eighth Annual Boston Radio Exposition, Mechanics Building, Boston, Mass.

**October 1-6:** Pittsburgh Radio Show, Duquesne Gardens, Pittsburgh, Pa.

**October 2-7:** Sixth Wisconsin Radio-Music Exposition, Milwaukee Auditorium, Milwaukee, Wis.

**October 21-29:** Fourth Annual New Orleans Radio Show and Exposition, New Orleans States' Building, New Orleans, La.

## Splitdorf Promotions

Splitdorf Radio Corporation, Newark, N. J., has recently promoted several members of its staff. Hal P. Shearer has been made general manager; Noel S. Dunbar, advertising manager, and Paul Ware, director of the laboratory. Roy S. Dunn has been appointed western sales manager and will handle all radio sales in the north central states.

To meet the need for enlarged quarters, Splitdorf has added 100,000 square feet of floor space, taking over a building near the present factories. The new plant will be devoted entirely to the manufacture of radio receivers and speakers.

THE GENERAL RADIO COMPANY, Cambridge, Mass., and the Radio Frequency Laboratories, Boonton, N. J., have entered into a plan whereby the facilities of the laboratories of each will be available on certain problems of the other. This co-operative plan is one of a series of steps being taken by the General Radio Company to enlarge its apparatus business.

Dr. Lewis M. Hull, who has been connected with the Radio Frequency Laboratories since its founding about six years ago, has been appointed Director of Research of both organizations. He will make his headquarters at Cambridge.

## Radio Log as Bread Premium

Radio logs in the form of 3 in. x 5 in. folders, are being distributed by the Ward Baking Company, one of the leading bread companies, with each loaf of bread. These logs list the radio stations, their location and wavelength. The distribution of such a premium by a bread company certainly indicates the increasing trend toward general acceptance of radio as a part of every home.

FANSTEEL PRODUCTS COMPANY, INC., has placed Chester ("Doc") Jones in charge of its New York office at 50 Church Street. Mr. Jones has been with the Fansteel company for two years in charge of the development of technical sales. Prior to this, he was connected with *Chemical and Metallurgical Engineering*, a McGraw-Hill publication. John P. Rainbault, former manager of the New York branch, has severed his relations with Fansteel to take up other work.

E. MANUEL, export manager of the Pilot Manufacturing Company, Inc., Brooklyn, N. Y., sailed the latter part of January for a tour of South and Central America, returning to the United States via Mexico. While in South America, Mr. Manuel will make his headquarters at Buenos Aires, from which point he will visit Pilot agents and dealers in Argentina and Uruguay.

ZENITH RADIO CORPORATION, Chicago, Ill., has recently appointed Thomas H. Endicott as sales manager. Mr. Endicott will fill the position made vacant recently when N. A. Fegen resigned in order to become wholesale distributor for Zenith in Cleveland and northeastern portion of the state of Ohio.

ALBERT A. BARNES, president of the Udell Works, Indianapolis, Ind., died January 25, 1928. Mr. Barnes had held the office of president of this company for forty-six years.

## Poor George V! All His Radio Gets Is London

By Associated Press.

LONDON, Feb. 21.

**KING GEORGE is having his worries over his radio set at Buckingham Palace.**

**He explained his listening-in difficulties in a conversation at the British Industries Fair today while examining the wireless exhibits. He said:**

**"My wireless set won't get Paris or Germany. If I tune in for Paris I get London, and if I try to get Berlin I get London. I want a set that will get foreign stations when I want them."**

## New McGraw-Hill Scientific Series

The McGraw-Hill Book Company, 370 Seventh Avenue, New York City, will shortly launch a new series of scientific books to be known as the "Frontiers of Science Series."

All major sciences will be traced from their inception to date and the work will be written in such a way that the ordinary reader may quickly acquaint himself with the progress of the various sciences in a comparatively short time. The editorship

of the series will be in charge of Dr. Edwin E. Slosson, with the co-operation of Dr. Frank Thorne. The volumes will be revised, rewritten, or replaced by news as frequently as the advance of investigation requires.

## New Kolster House Organ

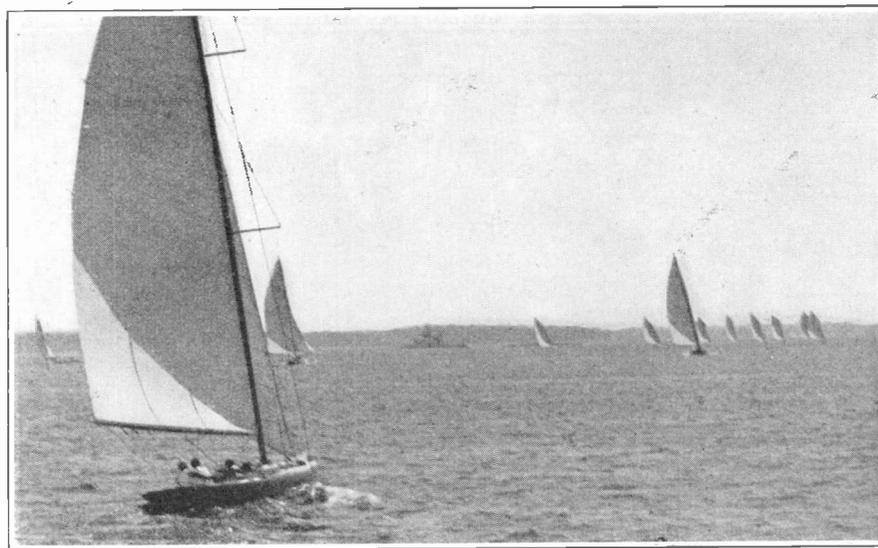
A monthly house organ, entitled, "The Kolster Dealer," is being published by the Federal-Brandes, Inc., Newark, N. J. The first edition, which came out recently, contained sixteen pages of interesting material aimed to help Kolster dealers in the conduct of their businesses. The booklet is generously illustrated and contains much information on Kolster plans and activities.

GOLD SEAL ELECTRICAL COMPANY, 250 Park Avenue, New York City, has taken over the Gold Seal Electric Company, Cleveland, Ohio, manufacturers of household electrical appliances. This is the first step in the Gold Seal company's program of expansion. Factories will be maintained at Cleveland, Ohio, and Newark, N. J., with executive and sales offices at New York.

M. F. BURNS, who has been New York district sales manager of E. T. Cunningham, Inc., becomes general sales manager of that company, effective March 1, in place of Major Herbert H. Frost, who has joined Federal-Brandes, Inc., as vice-president in charge of merchandising.

THE TIAGA RADIO DEALERS' ASSOCIATION, a newly formed group composed of radio dealers in the Tioga section of Philadelphia, recently held its first annual radio show. A complete line of receivers, speakers, etc., were displayed during the three days of the show. The officers of the association are: A. L. Hendricks, president; Harold Cadmus, treasurer, and Conrad Zitzer, executive secretary. The members are: Erie Radio Company, Henricks Hardware Company, Hilliard's Radio Store, LeRoy Lowe, George McIver, Modern Radio and Electric Shoppe, Northern Electric Company, and C. Zitzer & Sons.

## It's a Very Good Loud Speaker



C. L. Farrand, president of the Farrand Manufacturing Company, numbers yachting among his many accomplishments. He is shown here (try and find him) in the stern of his racer, the R-48, during recent races on Long

Island Sound, N. Y. We cast no disparagement on Mr. Farrand's abilities as a sailor, but judging from the R-48's position in the race we would say he makes a darn good loud speaker.

# News of Jobbers and Distributors

## Chicago Jobbers Organize Credit Section

Twenty-nine of the leading radio jobbers in Chicago, functioning as the radio section of the Chicago chapter, Electrical Credit Association, Central Division, met at the Electric Club recently, and formulated plans for the better exchange of credit information.

Those present were supplied with a quantity of credit information blanks, one for each account under discussion. On these blanks was noted the credit history of delinquents obtained by this interchange of experiences from interested members. The group plans bi-monthly meetings as it is felt that they will do much to correct certain credit abuses now existing in the Chicago territory. Fifty-two jobbers are now enrolled in this organization, of which C. S. Himmel of the Hudson-Ross Company, is chairman.

THE PLYMOUTH ELECTRIC COMPANY, 218 State Street, New Haven, Conn., has recently been appointed by the Federal Radio Corporation, Buffalo, N. Y., distributor for Connecticut, western Massachusetts and a portion of Rhode Island. The Plymouth company is one of the pioneer radio wholesalers in southern New England.

HATHEWAY & Co., 16 Hudson Street, New York City, has been appointed sales agent in New England, New York State, and the Metropolitan District for the Wirt Company, Germantown, Phila., Pa.

J. M. MCGUIRE & COMPANY, New York City, distributor of portable radio equipment, has opened new offices at 1476 Broadway.



## Hamburg Brothers Hosts to Steinite Dealers

The second annual Steinite dealers' banquet was held recently at the Fort Pitt Hotel, Pittsburgh, Pa., with Hamburg Brothers, distributors for western Pennsylvania and northern West Virginia, as hosts. Elmer Hamburg welcomed the large gathering of over two hundred dealers, and Jim Simpson, of the Pittsburgh Radio Show Association, addressed the group on the subject of merchandising. Fred W. Stein, of the Steinite Company, and Oscar Getz, sales manager, spoke during the evening. The sales policies and campaign of the company for the coming season were outlined.

THE CONTINENTAL RADIO & ELECTRIC CORPORATION, New York City, recently moved to new quarters at 160 Varick Street. The steady growth of the Continental company's business has resulted in the need for additional floor space and increased shipping facilities.

PERRY B. WHITSIT COMPANY, Columbus, Ohio, has recently been appointed Kellogg distributor for central and southern Ohio, eastern Kentucky and southeastern West Virginia. The Whitsit Company is well known in this territory having been distributor for Victor products for many years.

THE AMRAD CORPORATION, Medford Hillside, Mass., has recently appointed the following regional distributors: Motor Parts Company, 818 N. Broad Street, Philadelphia, Pa.; Southland Electric Company, 512 W. Main Street, Louisville, Ky.; Southeastern Electric Company, 429 Broad Street, Chattanooga, Tenn.; Bond Rider Jackson Company, Charleston, W. Va.; Southeastern Electric Company, 312 W. Jackson Ave., Knoxville, Tenn.; E. Garnich & Son Hardware Company, Ashland, Wis.; and the Southern Tier Electric Supply Company, 880 State Street, Binghamton, N. Y.

ALLEN-HOUGH MANUFACTURING COMPANY, Milwaukee, Wis., maker of the Allen portable receiver, has recently appointed the following distributors: William A. Carroll, Inc., Detroit, Mich.; Aluminum Specialty Company, Dallas, Texas, and the Aluminum Specialty Company, Atlanta, Ga.

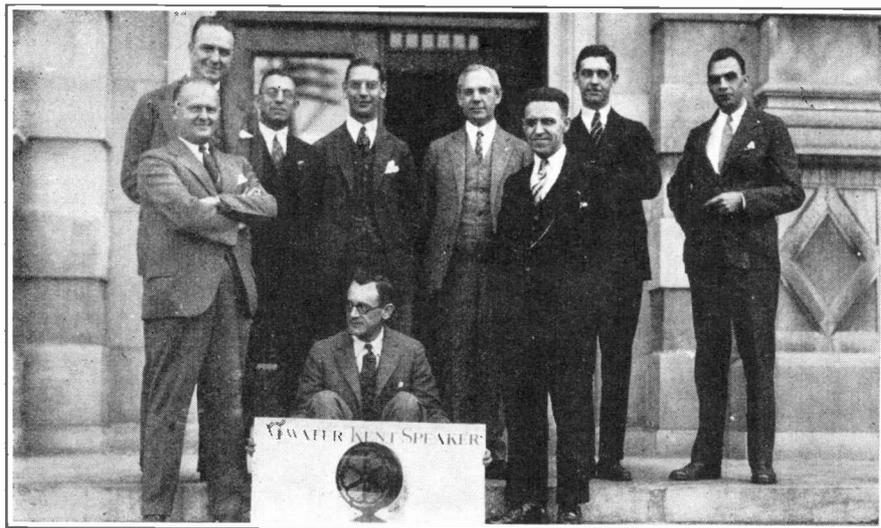
K. E. REED, sales manager of the Federal Radio Corporation, Buffalo, N. Y., recently took a trip through western United States and Canada, visiting Federal wholesalers in over twenty cities, including Dallas, Los Angeles, Seattle, Vancouver, Winnipeg and Calgary.

THE EXIDE CAROLINA DISTRIBUTING COMPANY, Columbia, S. C., has recently been appointed distributor for the Splittorf Radio Corporation, Newark, N. J., covering Georgia, eastern South Carolina and southern North Carolina.

THE AMERICAN SUPPLY COMPANY, 326 West Madison St., Chicago, Ill., has recently been formed for the purpose of distributing the Steinlite line. Eli Abelson, brother of J. Abelson of the Steinite Radio Company, is the founder, and Reuben A. Duski is has been appointed sales manager.

PEIRCE-PHELPS, INC., 224 N. 13th Street, Philadelphia, Pa., has recently been appointed Fada distributor for southern New Jersey, eastern Pennsylvania and the state of Maryland.

## New Jersey Radio, Inc. Salesmen at Atwater Kent Factory



The sales force of New Jersey Radio, Inc., wholesale distributor, recently paid its annual visit to the factory and main office of the Atwater Kent Manufacturing Company. Reading from left to right they are: D. T. Preyer, J. J. Hocter, P. E. Hand, P. J. Landemare, (General Manager), O. L. Puth, H. R. Arendt, J. T. Smith, J. T. Schwering (of Atwater Kent Mfg. Co.) and A. Ruckstuhl (seated).

# New Dealer Help Material

*Aids to greater profits provided by radio manufacturers for their dealers*



## The Abox Girl

The attractive girl on the illustrated display is none other than the Abox Girl. She is 5 ft. 2 in. tall, with dark, bobbed hair and brown eyes. This cardboard floor display stands about 66 in. high and makes a very striking appearance. The girl's expression is so natural that she seems almost real. This company has a limited number on hand for its dealers.

THE RADIO CORPORATION OF AMERICA, 233 Broadway, New York City, has launched a direct mail campaign for its dealers. The campaign comprises six mailings, sent out at the rate of two a month for a period of three months. The literature, imprinted with the dealer's name, and all ready for mailing—sealed, stamped and addressed—is sent to the dealer in regular installments, to be mailed from his own city. Briefly, the R.C.A. campaign includes, first, a letter from R.C.A. headquarters, introducing the dealer to the community; second, a six-color folder introducing the entire Radiola line; third, a four-page letter, featuring the Radiola 16 and 30, and emphasizing price variety; fourth, a folder on service and reliability; fifth, a collection of cards featuring each popular model; and, last, a folder presenting the Radiola 17. R.C.A. shares one-half the expense, the cost to the dealer being 35 cents per name, postage included, for all six mailings.

TRIMM RADIO MANUFACTURING COMPANY, 847 West Harrison Street, Chicago, Ill., has available a neat display card, designed to hang from the bell of its speaker or on the wall. It is printed in red and black, and may be obtained without charge from this company.

THE GRAY & DANIELSON MFG. CO., Remler Division, 260 First Street, San Francisco, Calif., has recently started a "Remler Bulletin Service" for its dealers. The object of this service is to give dealers finger-tip information about the popular circuits, a list of the necessary parts, together with considerable technical data worked out in the Remler laboratory. These bulletins are sent out at intervals, ready to be punched and bound, making a permanent reference book. Remler dealers who desire to receive these bulletins regularly should communicate with this company.

KEN-RAD CORPORATION, Owensboro, Ky., has inaugurated a new service for its dealers. Each week the dealer receives a window poster, headed, "Ken-Rad News," and illustrated with a current news event. They are distributed while the subject is still fresh in the public's mind and make splendid "attention-getters." The display, which carries the Ken-Rad name conspicuously, is large enough (13 in. x 17 in.) to be easily seen and read by passers-by, drawing them to the window. Dealers desiring to receive these posters regularly should write directly to this company.

MODERN ELECTRIC MFG. COMPANY, Toledo, has prepared a small booklet of 15 pages entitled, "How to Properly Operate Your Radio with a B-Power Unit." This leaflet explains fully the function of the unit, and contains two pages on "Possible Difficulties and Their Correction." The booklet will be mailed to dealers without charge.

TOBE DEUTSCHMANN COMPANY, Cambridge, Mass., is supplying its dealers with 17 in. x 20 in. wall posters on its condensers and resistors. These posters are illustrated with a row of West Point cadets at attention, with Tobe condensers lined up in front, with the words "Uniform—They Stand Up" printed above. They are printed in red, yellow, black and silver gray. Free upon request.

DIAMOND ELECTRIC CORPORATION, Newark, N. J., has prepared a continuous streamer showcard for window background decoration, which can be used in unit lengths of 36 in., 72 in., or longer, if necessary. The skyline of a great city is used as the background. The showcard is printed by a new process on corrugated cardboard and is designed to catch the eye of the passerby. This material will be sent to Diamond battery dealers upon request.

## Electric Counter Sign



All-American Radio Corporation, 3207 Belmont Avenue, Chicago, Ill., has available the illustrated electric sign, 15 in. wide and 17 in. high, for counter or window use. Heat from the light inside causes a color drum to revolve, casting reflections on the glass. The sign has space of approximately 12 in. x 14 in. on the front, on which interchangeable letters may be mounted to give any message that the dealer may want. Sent to franchised dealers only. Price \$5.00.

## Lighted Lamp Lends Home Effect



By placing an electric light bulb behind the lamp shade of this Freed-Eisemann window background, an unusually attractive and homelike effect is obtained. The paper shade comes separately and fits into slits at either side. The display is printed in soft reds and browns and stands 31 in. high x 44 in. wide. This company also offers some new counter cards, 27 in. x 10 in., printed in bright colors; long blue and orange wall posters on its all-electric set; small paper wall posters in green and orange, and several 2-page "give-away" leaflets describing the different models. All of these may be obtained free from the Freed-Eisemann Radio Company, Junius Street and Liberty Avenue, Brooklyn, N. Y.

## How a Distributor Finances Time Payments

(Continued from page 55)

collections are handled in a courteous manner, and experience has shown that less than 5 per cent of all contracts are ever referred back to the dealer for direct collection.

Another feature of this plan, according to Mr. Litt, is the optional insurance policy paid for by the purchaser and for which an insurance company agrees to maintain the payments on the contract during a possible period of sickness or accident disability on the part of the purchaser. In case of death before the expiration of the contract, the heir or heirs receive a paid in full bill of sale to the set.

### DEALER'S OPINION

ONE dealer's viewpoint on this plan is expressed by Edward Walsh, owner of the Bryn Mawr Music and Radio Shop, Bryn Mawr, Illinois. It voices the thoughts of a number of other retailers interviewed:

"Since I began discounting my time payment paper through my jobber, gross sales have been sixty per cent larger than they were for the same period a year previous. I feel that at least half this showing is due to the fact that my mind is now free from worries concerning how I am going to meet my obligations or collect my time-payment accounts. Furthermore, I am now in a position to increase the average unit sales price from approximately \$135 to \$170 by offering terms.

"My credit at the local bank has been strengthened and my relations with my jobber are more harmonious because each obligation is taken care of as it occurs. I do not have to rob Peter to pay Paul as cash sales are paid

up at once and credit sales similarly—through this submitting of each contract, as soon as signed, to the wholesaler.

"Another thing; I have a good argument for getting 25 per cent down—'I am required to do so'—I tell the prospect. A good credit risk will be able to meet this requirement, otherwise I pass him up. That is why, so far, I haven't lost a penny on time payment customers."

### WHAT IT HAS DONE FOR JOBBER

LITT summarizes Alter's reactions in these terse sentences: "The E.F.C. Plan has enabled me to grant credit, with perfect safety, to dealers whose financial statement was not acceptable to the larger contract purchase corporations. In many instances I have not only reduced the amount of their open account but have been able to increase the amount of their purchases because of this contract collateral placed at my disposal. Sixty per cent in round numbers of our dealer sales are now made on this basis.

"This plan has developed markedly the habit, on the dealer's part, of paying for each outfit as soon as sold. The ten per cent reserve which we hold out is used as cash with which they (the dealers) purchase tubes, parts and accessories.

"We are breaking slightly better than even on the cost of handling this paper and of collecting the monthly payments as against the banking profit involved. Only one extra girl has had to be added in order to look after collections."

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## We're in the Show Business

(Continued from page 40)

sets were sold in this community. The instruction sheet put out by the manufacturer called for an antenna of quite short length to get the best efficiency from the set. This was entirely disregarded, with full knowledge, by the dealers, and they deliberately installed these sets with antennae from 80 to 120 ft. in length, telling their customers that a set so installed would get distance for them. As a matter of fact the sets so installed did get distance, but in getting it they got just about 95 per cent pure heterodynes.

Hundreds of disappointed listeners resulted, and I do not attempt to guess how much of the profits from the sales were taken away from dealers by the many service calls which resulted from this shortsightedness. I ask the question—why did not these dealers sell their customers the local broadcasting programs—the best available anywhere in the country, which had been brought to them by their local station, properly install the sets and reap the clean profits?

TO ATTEMPT going further into the exact mechanical details of how you should utilize the great potential of broadcasting in the merchandising of your wares would, I am afraid, only serve to bore you at this time. Moreover it is better, if I have succeeded in laying down the fundamental principles, to allow you to work out, with your own ingenuity, the best means to fit your immediate situation. Moreover, there is already in ex-

istence a world of material on this subject, coming from sources much better advised in the exact mechanics than am I. Your trade papers contain much of it with many concrete suggestions. As far back as September, 1926, *Radio Retailing* devoted eight pages to urging your use of window displays, proper newspaper copy, direct mail, the telephone, hand bills, home demonstrations, and store concerts for invited guests, in merchandising radio programs to non-owners of radio sets. I am sure that any of the leading radio publications will be happy indeed to work and counsel with you, and with the manufacturers in determining actual methods for realizing bigger profits.

Right here let me remind you of a great opportunity soon to be before you. This is a presidential year, and American business always approaches such with caution and full expectation of a decrease in sales volume.

The two great national conventions to nominate presidential candidates will be upon us in June. Both will be broadcast by probably the biggest network job yet attempted besides an appreciable number of independent stations who will have their own wires into the convention halls.

The entire nation will be at a high pitch of interest in these affairs—and will turn to the broadcast reports for first information as to what goes on.

Let us get ready for this now and while other industries stand still awaiting the outcome, let us cash in on it and, in an off year, make radio sales boom!

# Specifications of Variable Condensers—

INFORMATION concerning radio products, with the name and address of the manufacturer is a feature of *Radio Retailing's* editorial service. These lists are published from time to time as market conditions warrant. This service is without charge of any kind to the manufacturers listed.

The following list is that of variable condensers. The capacity has been given both at maximum and minimum, the maximum being in microfarads as is customary and the minimum in micromicrofarads,

which makes easier reading. It is interesting to note that the majority of manufacturers are using brass for the plates. There seems to be no standardization on the method of making the rotor connection both pigtail and friction are being used.

Removable shafts are more in evidence than before as this sometimes greatly facilitates the use and mechanical arrangement of the condenser. It is also interesting to note that there seems to be a tendency toward standardization on the quarter inch shaft.

Name and Address of Manufacturer	Trade Name and Model Number	List Price	Capacity		No. of Plates per Unit	Material of Plates	No. of Units on Shaft	Rotor Connection Pigtail or Friction	Type of Bearings	Shaft Removable	Type of Condenser	Diam. of Shaft in Inches	Overall Dimensions in Inches at Min. Capacity H—W—D			
			Max. in Mfd.	Min. in Mmfd.												
Alden Mfg. Co. Springfield, Mass.	Naald — 217	\$3.00	.000375	12	17	Alum.	1	Friction	Cone	No	Corrected Frequency	1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4	3x3			
	223	4.00	.0005	12	23	Alum.	1	Friction	Cone	No			3x3			
	2172	8.00	.000375	12	17	Alum.	2	Friction	Cone	No			5x4 1/2 x 6 1/2			
	2173	10.00	.000375	12	17	Alum.	3	Friction	Cone	Yes			5x4 1/2 x 9			
	2232	10.00	.0005	12	23	Alum.	2	Friction	Cone	No			5x4 1/2 x 7			
	2174	15.00	.000375	12	17	Alum.	4	Friction	Cone	Yes			5x4 1/2 x 13 1/2			
	2233	15.00	.0005	12	23	Alum.	3	Friction	Cone	Yes			5x4 1/2 x 10			
	2234	20.00	.0005	12	23	Alum.	4	Friction	Cone	Yes			5x4 1/2 x 14 1/2			
	Ameco Prod., Inc. Broome & Lafayette Sts. New York	Single— 1211	2.75	.00025	12	11	Brass	1	Pigtail	Thrus. & Fric.			No	S.L.F.	1/4	2 1/2 x 4 1/2 x 2 1/2
		1213	2.75	.0003	12	13	Brass	1	Pigtail	Thrus. & Fric.			No	S.L.F.	1/4	2 1/2 x 4 1/2 x 2 1/2
1217		3.00	.00035	14	17	Brass	1	Pigtail	Thrus. & Fric.	No	S.L.F.	1/4	2 1/2 x 4 1/2 x 2 1/2			
514		3.00	.00025	14	14	Brass	1	Friction	Thrus. & Fric.	No	S.L.W.	1/4	2 1/2 x 3 1/2 x 2 1/2			
516		3.00	.0003	13	16	Brass	1	Friction	Thrus. & Fric.	No	S.L.W.	1/4	2 1/2 x 3 1/2 x 2 1/2			
518		3.25	.00035	15	18	Brass	1	Friction	Thrus. & Fric.	No	S.L.W.	1/4	2 1/2 x 3 1/2 x 2 1/2			
1223		3.50	.0005	14	23	Brass	2	Pigtail	Thrus. & Fric.	No	S.L.F.	1/4	2 1/2 x 4 1/2 x 3			
526		3.75	.0005	15	26	Brass	1	Friction	Thrus. & Fric.	No	S.L.W.	1/4	2 1/2 x 3 1/2 x 2 1/2			
D.S. 135		4.50	.00035	17	23	Brass	1	Friction	Friction	Yes	S.L.W.	1/4	3 1/2 x 4 1/2 x 3 1/2			
D.S. 15		5.50	.0005	21	33	Brass	1	Friction	Friction	Yes	S.L.W.	1/4	3 1/2 x 4 1/2 x 4 1/2			
1222		5.50	.00025	14	23	Brass	1	Pigtail	Thrus. & Fric.	No	S.L.F.	1/4	2 1/2 x 4 1/2 x 2 1/2			
1226		5.50	.0003	12	11	Brass	2	Pigtail	Thrus. & Fric.	No	S.L.F.	1/4	2 1/2 x 4 1/2 x 3 1/2			
1234		6.00	.00035	14	17	Brass	2	Pigtail	Thrus. & Fric.	No	S.L.F.	1/4	2 1/2 x 4 1/2 x 3 1/2			
1014		6.00	.00025	13	14	Brass	2	Friction	Thrus. & Fric.	No	S.L.W.	1/4	2 1/2 x 4 1/2 x 3 1/2			
1016		6.00	.0003	14	16	Brass	2	Friction	Thrus. & Fric.	No	S.L.W.	1/4	2 1/2 x 4 1/2 x 3 1/2			
1018		6.50	.00035	15	18	Brass	2	Friction	Thrus. & Fric.	No	S.L.F.	1/4	2 1/2 x 4 1/2 x 3 1/2			
1246		7.00	.0005	14	23	Brass	2	Pigtail	Thrus. & Fric.	No	S.L.F.	1/4	2 1/2 x 4 1/2 x 3 1/2			
1026		7.50	.0005	15	26	Brass	2	Friction	Thrus. & Fric.	No	S.L.W.	1/4	2 1/2 x 4 1/2 x 3 1/2			
D.S. 235		9.00	.00035	17	23	Brass	1	Friction	Cone & Fric.	Yes	S.L.W.	1/4	3 1/2 x 4 1/2 x 4 1/2			
Triple— 1518		9.75	.00035	15	18	Brass	3	Friction	Thrus. & Fric.	No	S.L.W.	1/4	2 1/2 x 4 1/2 x 3 1/2			
Siamese— D.S. 25		11.00	.0005	20	33	Brass	2	Friction	Cone & Fric.	Yes	S.L.W.	1/4	3 1/2 x 4 1/2 x 3 1/2			
Triple— 1526		11.25	.0005	15	26	Brass	3	Friction	Thrus. & Fric.	No	S.L.W.	1/4	2 1/2 x 4 1/2 x 3 1/2			
Quadruple— 2018		13.00	.00035	15	18	Brass	4	Friction	Thrus. & Fric.	No	S.L.W.	1/4	2 1/2 x 4 1/2 x 3 1/2			
Triple— D.S. 335		13.50	.00035	17	23	Brass	3	Friction	Cone & Fric.	No	S.L.W.	1/4	3 1/2 x 4 1/2 x 3 1/2			
Quadruple— 2026		15.00	.0005	15	26	Brass	4	Friction	Thrus. & Fric.	No	S.L.W.	1/4	2 1/2 x 4 1/2 x 3 1/2			
Triple— D.S. 35		16.50	.0005	20	33	Brass	3	Friction	Cone & Fric.	No	S.L.W.	1/4	3 1/2 x 4 1/2 x 3 1/2			
Bremer-Tulley Mfg. Co. 520 So. Canal St. Chicago, Ill.		L 7	4.25	.000128	7	7	Alum.	1	Pigtail	Cone	No	S.L.W.	1/4	3x3 1/2 x 3 1/2		
		L 13	4.50	.000254	9	13	Alum.	1	Pigtail	Cone	No	S.L.W.	1/4	3x3 1/2 x 3 1/2		
		L 17	4.75	.000375	11	17	Alum.	1	Pigtail	Cone	No	S.L.W.	1/4	3x3 1/2 x 4		
		L 23	5.00	.000455	13	23	Alum.	1	Pigtail	Cone	No	S.L.W.	1/4	3x3 1/2 x 4		
	S.L.F. 13	5.50	.00025	8	13	Alum.	1	Pigtail	Cone	No	S.L.F.	1/4	2 1/2 x 3 1/2 x 5			
	S.L.F. 17	5.75	.00037	10	17	Alum.	1	Pigtail	Cone	No	S.L.F.	1/4	2 1/2 x 3 1/2 x 5			
	S.L.F. 23	5.75	.0005	12	23	Alum.	1	Pigtail	Cone	No	S.L.F.	1/4	2 1/2 x 3 1/2 x 5			
	L.D. 13	9.00	.000278	14	13	Alum.	2	Pigtail	Cone	No	S.L.W.	1/4	3 1/2 x 4 1/2 x 5			
	L.D. 17	9.50	.0004	15	17	Alum.	2	Pigtail	Cone	No	S.L.W.	1/4	3 1/2 x 4 1/2 x 5			
	Cardwell Mfg. Corp., Allen D. 81 Prospect St. Brooklyn, N. Y.	Taper Plate— 191E	4.00	.000075	5	3	Alum.	1	Brush	Ball	No		1/4 1/4	4x3 1/2 x 3		
167E		4.00	.000150	7	5	Alum.	1	Brush	Ball	No	4x3 1/2 x 3					
168E		4.25	.000250	8	7	Alum.	1	Brush	Ball	No	4x3 1/2 x 3					
169E		4.75	.000350	13	11	Alum.	1	Brush	Ball	No	4x3 1/2 x 3					
192E		5.00	.000500	15	15	Alum.	1	Brush	Ball	No	4x3 1/2 x 3					
Pick Type— 191C		4.00	.00005	5	3	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
167C		4.00	.0001	6	5	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
168C		4.00	.00015	6.5	7	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
169C		4.00	.00022	9.5	11	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
170C		4.25	.00025	11	13	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
192C		4.25	.0003	8	15	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
171C		4.75	.00035	12	17	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
172C		4.75	.0004	14	21	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
173C		5.00	.0005	15	25	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
174C		5.50	.0007	18	33	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
194C		6.00	.0009	21	41	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
175C		7.00	.001	22	47	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
176C		15.00	.0015	32	71	Alum.	1	Brush	Ball	No	4x3 1/2 x 2 1/2					
203C		5.50	.00005	5	3	Alum.	2	Brush	Ball	No	4x4x2 1/2					
205C		6.00	.0001	6	5	Alum.	2	Brush	Ball	No	4x4x2 1/2					
207C		6.50	.00015	6.5	7	Alum.	2	Brush	Ball	No	4x4x2 1/2					
211C		7.00	.00022	9.5	11	Alum.	2	Brush	Ball	No	4x4x2 1/2					
215C		7.50	.0003	8	15	Alum.	2	Brush	Ball	No	4x4x4					
217C		8.00	.00035	12	17	Alum.	2	Brush	Ball	No	4x4x4					
221C		8.50	.0004	14	21	Alum.	2	Brush	Ball	No	4x4x4					
225C		9.00	.0005	15	25	Alum.	2	Brush	Ball	No	4x4x4					
303C		7.00	.00005	5	3	Alum.	3	Brush	Ball	No	4x4x4					
305C		8.00	.0001	6	5	Alum.	3	Brush	Ball	No	4x4x4					
307C		9.00	.00015	6.5	7	Alum.	3	Brush	Ball	No	4x4x4					
311C		10.00	.00022	9.5	11	Alum.	3	Brush	Ball	No	4x4x4					
315C	11.00	.0003	8	15	Alum.	3	Brush	Ball	No	4x4x5 1/2						
317C	12.00	.00035	12	17	Alum.	3	Brush	Ball	No	4x4x5 1/2						
321C	13.00	.0004	14	21	Alum.	3	Brush	Ball	No	4x4x5 1/2						

## Variable Condenser Specifications—Continued

Name and Address of Manufacturer	Trade Name and Model Number	List Price	Capacity		No. of Plates per Unit	Material of Plates	No. of Units on Shaft	Rotor Connection Pigtail or Friction	Type of Bearings	Shaft Removable	Type of Condenser	Diam. of Shaft in Inches	Overall Dimensions in Inches at Min. Capacity H—W—D
			Max. in Mfd.	Min. in Mmfd.									
<b>Cardwell Mfg. Corp.</b> <i>Concluded</i>	191D	\$4.00	.000025	3	3	Alum.	1	Brush	Ball	No			4x3½x2½
	167D	4.00	.00005	4	5	Alum.	1	Brush	Ball	No			4x3½x2½
	168D	4.00	.000075	5	7	Alum.	1	Brush	Ball	No			4x3½x2½
	169D	4.00	.0001	6	11	Alum.	1	Brush	Ball	No			4x3½x2½
	192D	4.25	.00015	7	15	Alum.	1	Brush	Ball	No			4x3½x2½
	173D	4.25	.00025	11	25	Alum.	1	Brush	Ball	No			4x3½x2½
	174D	4.50	.00035	12	33	Alum.	1	Brush	Ball	No			4x3½x2½
	175D	5.00	.0005	16	47	Alum.	1	Brush	Ball	No			4x3½x4
	176D	15.00	.0007	25	71	Alum.	1	Brush	Ball	No			4x3½x4
	211D	6.00	.00022	16	22	Alum.	2	Brush	Ball	No			4x3½x5½
	217D	6.50	.00035	19	34	Alum.	2	Brush	Ball	No			4x4x2½
	221D	7.00	.0004	24	42	Alum.	2	Brush	Ball	No			4x4x4
	225D	7.00	.0005	25	50	Alum.	2	Brush	Ball	No			4x4x4
	Balancets—605A	1.25	.000015	5	5	Alum.	1	Brush	Ball	No			4x4x4
	607A	1.25	.000025	7	7	Alum.	1	Brush	Shoulder	No			1x1½x1
	609A	1.25	.000035	9	9	Alum.	1	Brush	Shoulder	No			1x1½x1
	611A	1.50	.000040	11	11	Alum.	1	Brush	Shoulder	No			1x1½x1
	613A	1.50	.000050	13	13	Alum.	1	Brush	Shoulder	No			1x1½x1
	610A	2.00	.000015	5	5	Alum.	2	Brush	Shoulder	No			1x1½x1
	614A	2.25	.000025	7	7	Alum.	2	Brush	Shoulder	No			1x2½x1
	618A	2.25	.000035	9	9	Alum.	2	Brush	Shoulder	No			1x2½x1
	622A	2.50	.000040	11	11	Alum.	2	Brush	Shoulder	No			1x2½x1
626A	2.50	.000050	13	13	Alum.	2	Brush	Shoulder	No			1x2½x1	
<b>De Jur Products Co.</b> 199 Lafayette St. New York	180	3.00	.00014	9	9	Brass	1			No	S.L.F.		2½x4½x3½
	180A	3.00	.00025	21	21	Brass	1			No	S.L.F.		2½x4½x3½
	180B	3.25	.00035	21	21	Brass	1			No	S.L.F.		2½x4½x3½
	180C	3.50	.0005	27	27	Brass	1			No	S.L.F.		2½x4½x3½
	182B	6.50	.00035	21	21	Brass	2			No	S.L.F.		2½x4½x5½
	182C	7.00	.0005	27	27	Brass	2			No	S.L.F.		2½x4½x5½
	183B	9.75	.00035	21	21	Brass	3			No	S.L.F.		2½x4½x5½
	183C	10.50	.0005	27	27	Brass	3			No	S.L.F.		2½x4½x7
<b>Gardiner &amp; Hepburn, Inc.</b> 2100 Washington Ave. Philadelphia, Pa.	Continental Die Cast	2.50	.0005	25	23-11-17	Brass	1	Friction	Cone	Yes	Mod. S.L.F.		1½x3½x3½
		5.00	.0005	25	23-11-17	Brass	2	Friction	Cone	Yes	Mod. S.L.F.		1½x3½x5½
		7.50	.0005	25	23-11-17	Brass	3	Friction	Cone	Yes	Mod. S.L.F.		1½x3½x7
	Quaker Continental	1.50	.0005	25	23-11-17	Brass	1	Friction	Cone	Yes	Mod. S.L.F.		1½x3½
		2.50	.0005	25	30-15-21	Alum.	1	Friction	Cone	Yes	S.L.F.W.		1½x3½x3½
		5.00	.0005	25	30-15-21	Alum.	2	Friction	Cone	Yes	S.L.F.W.		1½x3½x5½
		7.50	.0005	25	30-15-21	Alum.	3	Friction	Cone	Yes	S.L.F.W.		1½x3½x6½
	Junior Condensette	1.25	.000022	12	12	Alum.	1	Friction	Straight Thread	No	No		1½x1½x2½
		.50	.000008	2	2	Alum.	1	Friction	Straight Thread	No	No		1½x2x1½
	Note: *.0005 cap., ¼.000	25 cap., ⅓.00035 cap.											
<b>General Radio Co.</b> 30 State St. Cambridge, Mass.	247N	3.75	.00035	15	21	Brass	1	Friction	Spring	No	S.L.W.		4x4x4
	F	4.00	.0005	15	26	Brass	1	Friction	Spring	No	S.L.W.		4x4x4
	P	4.75	.00035	15	21	Brass	1	Friction	Spring	No	S.L.W.		4x4x4
	H	5.00	.0005	15	26	Brass	1	Friction	Spring	No	S.L.W.		4x4x4
	E	6.25	.0005	22	26	Brass	1	Friction	Spring	No	S.L.C.		5x5x5
	G	7.25	.0005	22	26	Brass	1	Friction	Spring	No	S.L.C.		5x5x5
	334K	3.75	.00025	14	14	Brass	1	Friction	Spring	No	S.L.W.		3½x3½x4
	V	3.75	.00005	13	13	Brass	1	Friction	Spring	No	S.L.W.		3½x3½x4
	N	4.00	.00035	18	21	Brass	1	Friction	Spring	No	S.L.W.		3½x3½x4
	F	4.25	.0005	2	26	Brass	1	Friction	Spring	No	S.L.W.		3½x3½x4
	T	4.25	.0001	13	13	Brass	1	Friction	Spring	No	S.L.W.		3½x3½x4
	M	4.75	.00025	14	14	Brass	1	Friction	Spring	No	S.L.W.		3½x3½x4
	P	5.00	.00035	18	21	Brass	1	Friction	Spring	No	S.L.W.		3½x3½x4
	H	5.25	.0005	2	26	Brass	1	Friction	Spring	No	S.L.W.		3½x3½x4
	239H	10.00	.001	3	33	Alum.	1	Friction	Spring	No	S.L.W.		4½x4½x6
	M	13.00	.002	35	65	Alum.	1	Friction	Spring	No	S.L.W.		4½x4½x6
	G	13.50	.001	3	33	Alum.	1	Friction	Spring	No	S.L.W.		4½x4½x6
	L	16.50	.002	35	65	Alum.	1	Friction	Spring	No	S.L.W.		4½x4½x6
	368A	1.25	.000012	5	5	Brass	1	Friction	Spring	No	S.L.W.		2x2x1½
	B	1.50	.000050	11	11	Brass	1	Friction	Spring	No	S.L.W.		2x2x2
<b>Gray &amp; Danielson Mfg. Co.</b> Remler Division 260 First St. San Francisco, Calif.	Twin Rotor Cond.—638	5.00	.00035	3	27	Brass	1	Pigtail	Sleeve	No	S.L.W.		3x3½x2½
	639	5.00	.0005	3	32	Brass	1	Pigtail	Sleeve	No	S.L.W.		3x3½x2½
	648	5.00	.00035	5	27	Brass	1	Pigtail	Sleeve	No	S.L.F.		3½x3½x2½
	649	5.00	.0005	5	32	Brass	1	Pigtail	Sleeve	No	S.L.F.		3½x3½x2½
	659	5.00	.0001	5	16	Brass	1	Pigtail	Sleeve	No	S.L.F.		3½x3½x2½
	Two-in-Line—632	12.00	.00035	3	27	Brass	2	Pigtail	Adj. Cone	No	S.L.W.		3½x3½x5½
	642	12.00	.00035	5	27	Brass	2	Pigtail	Adj. Cone	No	S.L.F.		4x3½x5½
633	15.00	.00035	3	27	Brass	3	Pigtail	Adj. Cone	No	S.L.W.		3½x3½x7	
<b>Hammarlund Mfg. Co. Inc.</b> 424 W. 33rd St. New York	Midline—ML-5	4.75	.0001	10	5	Brass	1	Pigtail		Yes	Mod. S.L.W.		3½x4x3
	17	4.75	.00015	11	7	Brass	1	Pigtail		Yes	Mod. S.L.W.		3½x4x3
	11	5.00	.00025	13	11	Brass	1	Pigtail		Yes	Mod. S.L.W.		3½x4x3
	13	5.10	.0003	16	13	Brass	1	Pigtail		Yes	Mod. S.L.W.		3½x4x3
	17	5.25	.00035	18	17	Brass	1	Pigtail		Yes	Mod. S.L.W.		3½x4x3
	23	5.50	.0005	20	23	Brass	1	Pigtail		Yes	Mod. S.L.W.		3½x4x3
	S.F.L.—5	4.75	.0001	10	5	Brass	1	Pigtail		Yes	S.L.F.		3½x5½x3
	7	4.75	.00015	11	7	Brass	1	Pigtail		Yes	S.L.F.		3½x5½x3
	11	5.00	.00025	13	11	Brass	1	Pigtail		Yes	S.L.F.		3½x5½x3
	13	5.10	.0003	17	13	Brass	1	Pigtail		Yes	S.L.F.		3½x5½x3
	17	5.25	.00035	19	17	Brass	1	Pigtail		Yes	S.L.F.		3½x5½x3
	23	5.50	.0005	22	23	Brass	1	Pigtail		Yes	S.L.F.		3½x5½x3
	Midline—MLD-11	7.75	.00025	13	11	Brass	2	Pigtail		Yes	Mod. S.L.W.		3½x4x4
	13	8.25	.0003	16	13	Brass	2	Pigtail		Yes	Mod. S.L.W.		3½x4x4
	17	8.75	.00035	18	17	Brass	2	Pigtail		Yes	Mod. S.L.W.		3½x4x4
	23	9.25	.0005	20	23	Brass	2	Pigtail		Yes	Mod. S.L.W.		3½x4x4
	S.F.L.D.—11	7.75	.00025	13	11	Brass	2	Pigtail		Yes	S.L.F.		3½x5½x4
	13	8.25	.0003	17	13	Brass	2	Pigtail		Yes	S.L.F.		3½x5½x4
	17	8.75	.00035	19	17	Brass	2	Pigtail		Yes	S.L.F.		3½x5½x4
	23	9.25	.0005	22	23	Brass	2	Pigtail		Yes	S.L.F.		3½x5½x4
	Midget—MC-5	1.50	.000016	2	5	Brass	1	Friction	Cone	No	S.L.C.		2x1½x2½
	9	1.50	.000032	3	9	Brass	1	Friction	Cone	No	S.L.C.		2x1½x2½
	11	1.75	.000050	4	11	Brass	1	Friction	Cone	No	S.L.C.		2x1½x2½
	15	2.00	.000065	4	15	Brass	1	Friction	Cone	No	S.L.C.		2x1½x2½
	23	2.25	.0001	4	23	Brass	1	Friction	Cone	No	S.L.C.		2x1½x2½
	Transmitting—TC-12	6.00	.0001	12	12	Brass	1	Pigtail	Ball & Cone	No	S.L.C.		3½x4x2½
	22	7.00	.0002	17	22	Brass	1	Pigtail	Ball & Cone	No	S.L.C.		3½x4x4
	43	10.00	.0004	27	43	Brass	1	Pigtail	Ball & Cone	No	S.L.C.		3½x4x6
Short Wave—MLW SFLW	5.00	.0001	13	11	Brass	1	Friction	Double Cone	Yes	Mod. S.L.W.		3½x4x3	
	5.00	.0001	13	11	Brass	1	Friction	Double Cone	Yes	S.L.F.		3½x4x3	
*Equalizer—EC	.50	.000035	2	2	Brass	1	Direct	None	None	Spring Plate	None		1½x1½x1½

\*Spring plate type for neutralizing and balancing

† land phos. bronze.

‡ to plate.

## Variable Condenser Specifications—Concluded

Name and Address of Manufacturer	Trade Name and Model Number	List Price	Capacity		No. of Plates per Unit	Material of Plates	No. of Units on Shaft	Rotor Connection Pigtail or Friction	Type of Bearings	Shaft Removable	Type of Condenser	Diam. of Shaft in Inches	Overall Dimensions in Inches at Min. Capacity H—W—D	
			Max. in Mfd.	Min. in Mmfd.										
<b>Hart &amp; Hegeman Mfg. Co.</b> 342 Capitol Ave. Hartford, Conn.	H. & H. Equa-Space Single Hole Mounting W-717 W-723	\$3.00	.00035		17	Alum.	Single	Friction	Cone	Yes	Equa-Space	1/4	2x3 1/2 x 3	
		3.25	.0005		23	Alum.	Single	Friction	Cone	Yes	Equa-Space	1/4	2x3 1/2 x 3	
<sup>1</sup> Can be mounted in 2 or more gangs.														
<b>Imperial Elec. Mfg. Co.</b> 50 Columbia St. Newark, N.J.	Puradyne	2.00	.00025		11	Alum.	1	Friction		No	S.L.W.	1/4		
		2.50	.0003		15	Alum.	1	Friction		No	S.L.W.	1/4		
		3.00	.00035		17	Alum.	1	Friction		No	S.L.W.	1/4		
		3.50	.0005		23	Alum.	1	Friction		No	S.L.W.	1/4		
		4.00	.00035		17	Alum.	2	Friction		No	S.L.W.	1/4		
		5.00	.0005		23	Alum.	2	Friction		No	S.L.W.	1/4		
		5.00	.00035		23	Alum.	3	Friction		No	S.L.W.	1/4		
<b>Karas Electric Co.</b> 4040 N. Rockwell St. Chicago, Ill.	Type—11	5.00	.00025	10.5	11	Brass		Friction	Cone	Yes	S.F.L.	1/4	2 1/2 x 5 1/2 x 2 1/2	
	17	5.25	.00037	14.5	17	Brass		Friction	Cone	Yes	S.F.L.	1/4	2 1/2 x 5 1/2 x 2 1/2	
	23	5.50	.0005	18	23	Brass		Friction	Cone	Yes	S.F.L.	1/4	2 1/2 x 5 1/2 x 2 1/2	
	Orthonetric—5 Plate	6.50	.0001	7.5	5	Brass		Pigtail	Cone	No	S.F.L.	1/4	2 1/2 x 5 1/2 x 2 1/2	
	7 Plate	6.50	.00014	8	7	Brass		Pigtail	Cone	No	S.F.L.	1/4	2 1/2 x 5 1/2 x 2 1/2	
	11 Plate	6.50	.00025	10.5	11	Brass		Pigtail	Cone	No	S.F.L.	1/4	2 1/2 x 5 1/2 x 2 1/2	
	17 Plate	6.75	.00037	14.5	17	Brass		Pigtail	Cone	No	S.F.L.	1/4	2 1/2 x 5 1/2 x 2 1/2	
	23 Plate	7.00	.0005	18	23	Brass		Pigtail	Cone	No	S.F.L.	1/4	2 1/2 x 5 1/2 x 2 1/2	
	17 Plate Extended Shaft	7.00	.00037	14.5	17	Brass		Pigtail	Cone	No	S.F.L.	1/4	2 1/2 x 5 1/2 x 2 1/2	
	<b>Muter Co., Leslie F.</b> Chicago, Ill.	Muter Variall	.75	.00005	3	3	Brass					Balancing Grid		1 x 1 1/2 x 2 1/2
Muter Variall		1.00	.0005	15	5	Brass					Balancing Grid		1 x 1 1/2 x 2 1/2	
<b>Pilot Electric Mfg. Co.</b> 323 Berry St. Brooklyn, N. Y.	Centraline—1608		.000160	9.76	8	Brass	1			No	Centraline		3 x 3 1/2 x 2 1/2	
	1613		.000275	10.37	13	Brass	1			No	Centraline		3 x 3 1/2 x 2 1/2	
	1617		.000370	12.02	17	Brass	1			No	Centraline		3 x 3 1/2 x 2 1/2	
	1623		.000498	14.03	23	Brass	1			No	Centraline		3 x 3 1/2 x 2 1/2	
	S.L.F.—1508		.000166	9.15	8	Brass	1			No	S.L.F.		3 x 1 1/2 x 2 1/2	
	1517		.00028	10	13	Brass	1			No	S.L.F.		3 x 1 1/2 x 2 1/2	
	1513		.000375	12	17	Brass	1			No	S.L.F.		3 x 1 1/2 x 2 1/2	
	1523		.000500	13.7	23	Brass	1			No	S.L.F.		3 x 1 1/2 x 2 1/2	
	Midget Condenser		.00025	3.98	7	Brass	1	Friction		No	Midget S.L.C.		1 1/2 x 1 1/2 x 1 1/2	
	Midget Condenser		.00050	4.5	13	Brass	1	Friction		No	Midget S.L.C.		1 1/2 x 1 1/2 x 1 1/2	
	Midget Condenser		.00095	6	23	Brass	1	Friction		No	Midget S.L.C.		2 x 1 1/2 x 1 1/2	
	Height from top of shaft to end of shaft. All shafts 1 in. from end plates.													
	<b>Precise Mfg. Co.</b> 254 Mill St. Rochester, N. Y.	1580	3.75	.00035	14	17	Brass	†	Friction	Friction	Yes	W.L.	1/4	1 1/2 x 3 1/2 x 2 1/2
1550		6.50	.00035	14	17	Brass	2	Friction	Friction	No	W.L.	1/4	1 1/2 x 3 1/2 x 4 1/2	
1800		9.75	.00035	14	17	Brass	3	Friction	Friction	No	W.L.	1/4	1 1/2 x 3 1/2 x 6 1/2	
940 Microdenser		1.25	* 10	2	3	Brass	1	Friction	Friction	No	Capacity	1/8 & 1/16 & 1/32 & 1/64 & 1/128 & 1/256 & 1/512 & 1/1024	1 x 1 1/2 x 1	
940 Microdenser		1.50	* 30	3	6	Brass	1	Friction	Friction	No	Capacity	1/8 & 1/16 & 1/32 & 1/64 & 1/128 & 1/256 & 1/512 & 1/1024	1 x 1 1/2 x 1 1/2	
940 Microdenser		1.65	* 55	4	12	Brass	1	Friction	Friction	No	Capacity	1/8 & 1/16 & 1/32 & 1/64 & 1/128 & 1/256 & 1/512 & 1/1024	1 x 1 1/2 x 1 1/2	
940 Microdenser		1.75	* 100	6	21	Brass	1	Friction	Friction	No	Capacity	1/8 & 1/16 & 1/32 & 1/64 & 1/128 & 1/256 & 1/512 & 1/1024	1 x 1 1/2 x 1 1/2	
940 Microdenser		2.00	* 135	8	27	Brass	1	Friction	Friction	No	Capacity	1/8 & 1/16 & 1/32 & 1/64 & 1/128 & 1/256 & 1/512 & 1/1024	1 x 1 1/2 x 2	
*In Mmfds. †Gang type.														
<b>Premier Electric Co.</b> Grace & Ravenswood Ave. Chicago, Ill.	Premier Crofoot—107	2.75	.0001	5	7	Brass		Both		Yes			3 x 3 x 2 1/2	
	111	3.00	.00015	5+	11	Brass		Both		Yes			3 x 3 x 2 1/2	
	117	3.25	.00025	6	17	Brass		Both		Yes			3 x 3 x 3	
	123	3.50	.00035	7	23	Brass		Both		Yes			3 x 3 x 3 1/2	
	133	3.75	.0005	7+	33	Brass		Both		Yes			3 x 3 x 3 1/2	
	Split Meter—307	2.75	.0001	5	7	Brass		Both		Yes			3 1/2 x 4 x 3 1/2	
	311	3.00	.00015	5+	11	Brass		Both		Yes			3 1/2 x 4 x 3 1/2	
	317	3.25	.00025	6	17	Brass		Both		Yes			3 1/2 x 4 x 3 1/2	
	323	3.50	.00035	7	23	Brass		Both		Yes			3 1/2 x 4 x 4	
	333	3.75	.0005	7+	33	Brass		Both		Yes			3 1/2 x 4 x 4 1/2	
<b>Radio Engineering Lab.</b> 100 Wilbur Ave. Long Island City, N.Y.	Cat. 149 Type R	17.00	.000025		7	Brass	1	Friction	Conical	No	S.L.C.	1/4	6 1/2 x 5 1/2 x 6.750	
	N	17.25	.000060		11	Brass	1	Friction	Conical	No	S.L.C.	1/4	6 1/2 x 5 1/2 x 6.750	
	K	17.50	.000200		19	Brass	1	Friction	Conical	No	S.L.C.	1/4	6 1/2 x 5 1/2 x 9.100	
	S	19.00	.000045		11	Brass	1	Friction	Conical	No	S.L.C.	1/4	6 1/2 x 5 1/2 x 9.100	
	O	20.00	.000100		19	Brass	1	Friction	Conical	No	S.L.C.	1/4	6 1/2 x 5 1/2 x 9.100	
	L	21.00	.000350		33	Brass	1	Friction	Conical	No	S.L.C.	1/4	6 1/2 x 5 1/2 x 13.620	
	T	27.00	.000080		19	Brass	1	Friction	Conical	No	S.L.C.	1/4	6 1/2 x 5 1/2 x 13.620	
	P	28.00	.000180		33	Brass	1	Friction	Conical	No	S.L.C.	1/4	6 1/2 x 5 1/2 x 13.620	
	M	29.00	.000650		59	Brass	1	Friction	Conical	No	S.L.C.	1/4	6 1/2 x 5 1/2 x 13.620	
†Dia. on ends for knobs—1/4 in. dia. in center. Also Condensers for transmission and laboratory uses.														
<b>Seovill Mfg. Co.</b> Waterbury, Conn.	Make to manufacturer's specifications only.													
<b>Silver-Marshall, Inc.</b> 846 W. Jackson Blvd. Chicago, Ill.	S-M—340	1.50	.000025	3	9	Brass		Friction	Friction	No	Midget	1/4	1 1/2 x 1 1/2 x 1 1/2	
	340-A	1.50	.000025	3	9	Brass		Friction	Friction	No	Midget	1/4	1 1/2 x 1 1/2 x 1 1/2	
	342	1.50	.000075	4	19	Brass		Friction	Friction	No	Midget	1/4	1 1/2 x 1 1/2 x 1 1/2	
	320	3.25	.00035	7	25	Alum.		Friction	Friction	No			3 x 3 x 1 1/2	
	316-A	4.50	.00035	7	27	Brass		Friction	Friction	Yes			2 1/2 x 3 x 2 1/2	
	316-B	4.50	.00035	7	27	Brass		Friction	Friction	Yes			2 1/2 x 3 x 2 1/2	
317	4.50	.00014	5	11	Brass		Friction	Friction	Yes			2 1/2 x 3 x 2 1/2		

## Latin American Exports Increasing *(Continued from page 59)*

Some distinctive developments are the recovery of the Argentine and Uruguayan markets. Venezuela shows indication of being overstocked and is not likely to make purchases during 1928. There has been a falling off in the exports to Mexico and Cuba, which are accounted for by the depressed conditions in those countries. In the British West Indies, there has been some revival of interest which condition also exists in Porto Rico. The use of radio is being extended in Brazil to the outlying regions, and this country should continue to be an increasing market. An effort is being made to stimulate

the demand for radio in Chile, the effects of which will not be apparent until some time during the next year. Colombia and Ecuador have never been markets of any importance, and there is little likelihood of any development in the near future.

During the past year Peru has taken but little new apparatus on account of its market being overstocked during the arrangement to purchase equally British and American products. The agreement has been terminated and when the market is relieved of the excess stock there should be a fair demand for new equipment.

## I Let Them Sell Themselves

(Continued from page 43)

friend bet a dollar that Beatty's service man would be on the job within 30 minutes from the time the call was entered. He won. My man was there in 23 minutes.

"Now it so happened that there were 18 people at that house that cold December night. Every one of them knew, before they left, that Beatty's hardware store was on the job, night and day. And remember that my man didn't know anything about those circumstances either when the call came in."

**M**R. BEATTY has stated that he does not grant home trials. He has adhered to this rule consistently. He credits these three policies for his success in eliminating the outside demonstrations. a. The "sell yourself" demonstration in the little back room. b. The reputation which he has established for making good. c. The liberal use of newspaper space; partially paid for, he estimates, by the money saved which ordinarily must be spent for the home trial.

During December, 1927, H. G. Beatty & Company spent slightly more than \$300 for local newspaper display space. Its holiday business was approximately 70 sets. Clinton has an estimated trading population of 12,000. The publicity policy of this concern has been for the past two years, to run 60 column inches a week during the summer months, 100 inches a week during September, October, November, January and February, and 160 inches a week during December. Thus, through its dominant advertising does this company attract the uninformed, through its store policy it enthruses prospects to the buying point and, with its "on tap" service, it keeps them sold.

## Legally, Not Responsible

(Continued from page 53)

continue so until more improvements are made. There was nothing exceptional about the performance of defendant's set. \* \* \*

"Defendant purchased a radio receiving set. He got it. He got the one that the plaintiff recommended, and he had asked for his recommendation. It was never misdescribed to him. He used his own judgment and that of plaintiff in picking this particular kind. There was no express warranty in connection with the sale, \* \* \*"

In conclusion, the court affirmed the judgment of the trial court in favor of the merchant. Holding, as outlined in the opinion, that the evidence failed to show an express warranty on the part of the plaintiff, and the mere fact that the radio was purchased on their recommendation would not release the defendant from liability to pay for it because it failed to give satisfaction.

The case is clear cut on the legal side of the question involved, and the radio merchant appears to be absolved from all legal responsibility or any blame. But, it is safe to say that the customer is more dissatisfied than ever before. Worse still he has perhaps had a deep hatred planted within him toward that make of instrument and that merchant. From this the feeling no doubt goes back to all other radio merchants and manufacturers in general. This particular merchant is not legally responsible nor accountable for this feeling and its far-reaching effects, but what about his moral responsibility?

## Merchandising A.C. Conversion

(Continued from page 45)

re-wired for A.C. tubes. Nothing has been changed on the panel front and about the only thing that the customer can see on the inside of a set is the difference in the tubes. This has proved to be a very good sales lead as it shows a prospective client just what he may expect with his own receiver.

The utmost of care is used in re-wiring battery sets so that no additional controls are put on the face of the panel or any other obvious change made in appearance which might dissatisfy the customer. If the switch which is used to turn on the batteries is not a very substantial one, a new switch is substituted which will operate satisfactorily on 110 volts.

**A**NOTHER concern that is making a success of A.C. conversion is the Radio Specialty Company of Milwaukee. These distributors do a complete re-wiring job on any D.C. set for a price of \$25 to the dealer. This includes labor, the A and B power pack, volume control and harness. The '26 and '27 type tubes are used, these not being included in the cost of the job.

Many firms are springing up throughout the country who are specializing in re-wiring for A.C. tubes; building up their entire business, in fact, by means of this one item alone. One of these companies is the Super Lab Corp., 6 East Lake Street, Chicago. Organized last December, this concern, of which Jerry Segall is general manager, has built up a trade in re-wiring which exceeds 35 to 40 sets a day. Their first newspaper ad, appearing the week before Christmas, featured the conversion of battery-operated sets to A.C. tubes and measured three inches in one column.

It scored such an instantaneous hit that the Super Lab Corp. now finds it necessary to take half-pages in the weekly radio sections. Business is carried on direct to the consumer as well as through radio retailers. Arcturus tubes are used and each set is completely adapted to the A.C. tubes. The '26 and '27 types may also be used, but this particular company has specialized in the Arcturus method. Prices to the consumer for an ordinary six-tube set work out about as follows:

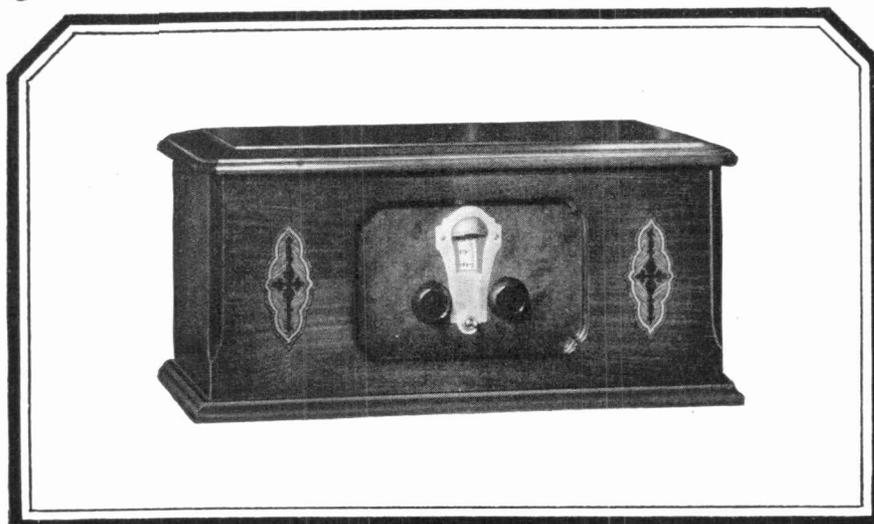
A and B power pack.....	\$40
6 Arcturus tubes (@ \$5).....	30
Labor and cable (\$1.50 per socket).....	9
Total .....	\$79

Prices to the dealer for re-wiring a six-tube set are the above prices on the power pack and tubes, less 40 per cent, or \$42, and a flat charge of \$1 per socket for the labor and cable, making a total of approximately \$48.

"The results attained from our initial advertising," Segall says, "were so astonishing as to convince us that there exists a tremendous public demand for the conversion of D.C. sets to use A.C. tubes. Any radio dealer, through proper advertising and exploitation, with his business and clientele already established can build up the same profit-making trade that we have been able to do by starting off from scratch.

"The re-wiring job is simple and, with a little experimenting, can be done on any type of set. Dealers will find a large ready-made market for it, either to do themselves or to have done for them through a specialty company like our own. It is an opportunity no dealer can afford to overlook."

# New THE MODEL 6-40 "ELECTRIC"



**\$130.00**  
Less tubes

an innovation by  
**Bremer-Tully**

## First Profit in Three Years—

is experience of Frank M. Brown Company, Portland, Maine, since they started last November to sell Bremer-Tully Counterphase Radio. Here's what they say:—

"We have been in the radio business for three years and have made our **FIRST PROFIT** as a distributor on the Bremer-Tully line.

"We have always had a good sales volume but have never made a nickel on Radio because apparatus handled was primarily of poor quality.

"We were about to discontinue Radio entirely but decided to make one more try at producing a profit, taking on the Bremer-Tully Line which has been a great satisfaction to us.

"If you continue your well-known High Engineering Standards we see no reason why we, as well as other Distributors, cannot Merchandise your Line at a Profit."

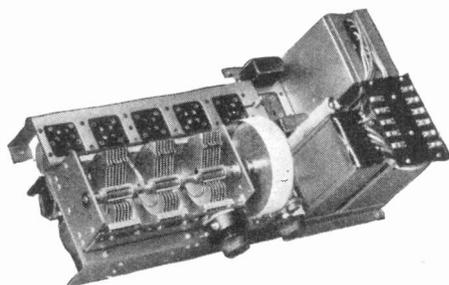
Small, compact, self-contained—a radio set that provides B-T quality at a price that will appeal to a widely extended market.

It is the latest Bremer-Tully achievement—the culmination of seven years of effort and experience.

Its addition to the line enables the dealer to offer Bremer-Tully Counterphase Radio in a wide price range—a range that fits every purse and purpose—and brings added profit.

Always a profit and good-will builder the B-T line now, more than ever before offers the dealer his greatest opportunity.

*Write for further details and information about our protected dealer franchise. It may still be open in your community.*



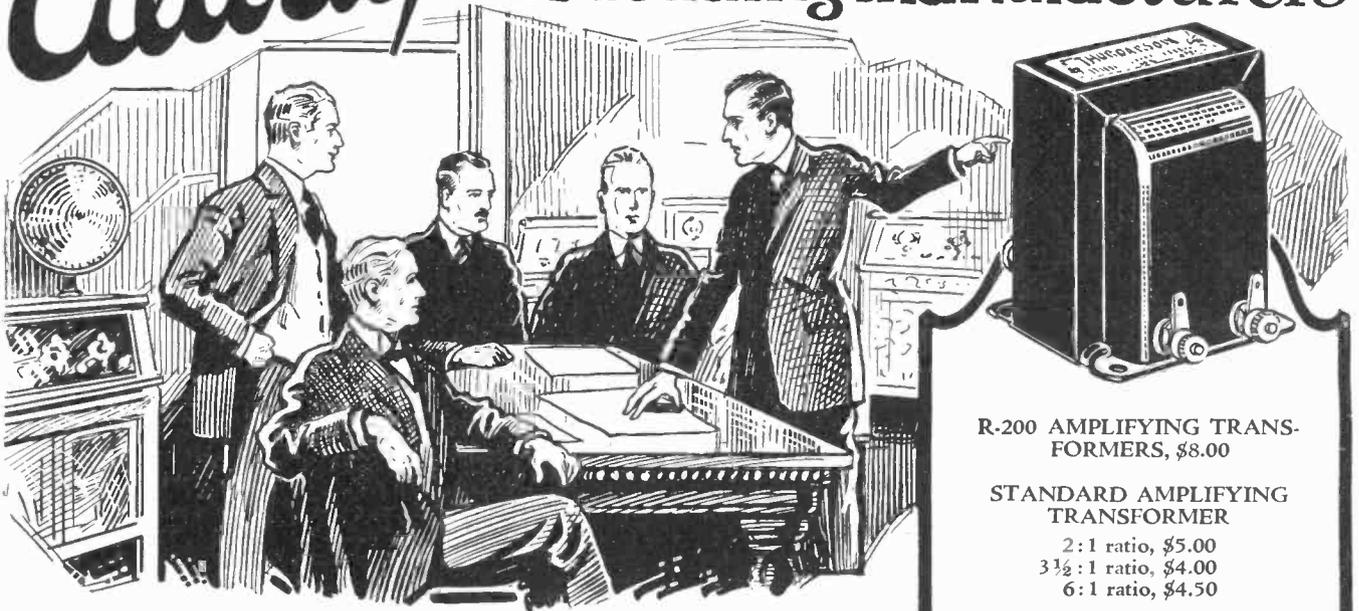
Model 6-40 Chassis and Power Pack

**Bremer-Tully Mfg. Company**  
*Pioneers of Better Tuning*

520 So. Canal St.

Chicago, Ill.

*Always* the first choice  
of leading manufacturers



## THORDARSON TRANSFORMERS

**F**EDERAL, Freed-Eisemann, Howard, Kennedy, Murad, Murdock, Pfanstiehl, Prestolite, Radio-dyne, Sparton, Valley, Willard, Zenith. These outstanding trade names are representative of the highest degree of radio workmanship and performance.

All specify Thordarson transformers as best in keeping with the high standards of performance maintained in their receivers and power units.

No wonder then, that the home constructor likewise is so insistent in his demand for Thordarson apparatus.

Cash in now on this popularity. Why waste time trying to sell unrecognized goods when there is a Thordarson transformer for every radio need.

If you would give your customers good musical reproduction *sell Thordarson Transformers.*

**THORDARSON ELECTRIC MANUFACTURING CO.**  
*Transformer specialists since 1895*  
WORLD'S OLDEST AND LARGEST EXCLUSIVE TRANSFORMER MAKERS  
*Chicago, U.S.A.*

3565

**MAIL THIS COUPON**

R-200 AMPLIFYING TRANSFORMERS, \$8.00

STANDARD AMPLIFYING TRANSFORMER

2:1 ratio, \$5.00  
3½:1 ratio, \$4.00  
6:1 ratio, \$4.50

SPEAKER COUPLING TRANSFORMER

R-76, \$6.00

OUTPUT CHOKE

R-196, \$5.00

POWER PUSH PULL TRANSFORMER AND CHOKE

T-2408 Input Transformer, \$8.00  
T-2420 Output Choke, \$8.00

AUTOFORMER IMPEDANCE

R-190, \$5.00

POWER COMPACTS  
(for power amplifiers)

R-171, \$15.00 R-210, \$20.00

130 M. A. FULL WAVE RECTIFIER

T-2098 (Transformer) \$20.00  
T-2099 (Double Choke) \$14.00

R. C. A. A. C. TUBE SUPPLY TRANSFORMER

T-2445, \$10.00

McCULLOUGH A. C. TUBE SUPPLY TRANSFORMER

T-2504, \$7.50

VAN HORNE A. C. TUBE SUPPLY TRANSFORMER

T-2370, \$5.00

Thordarson Electric Mfg. Co., Dept. M  
500 W. Huron Street  
Chicago, Ill.

Gentlemen:

We would appreciate receiving information on your complete line of audio and power supply transformers for the fall and winter season.

Jobber

Dealer

Name.....

Street.....

Town..... State.....

# MERCHANDISING RADIO PARTS



A Section of *Radio Retailing*

March, 1928

## Are You Selling Better REPRODUCTION?

*The average set builder today is bent on improving his audio frequency amplification rather than building a new set. Are you capitalizing this trend?*

PERHAPS one of the most interesting developments in the parts business is the growing tendency on the part of the average parts buyer toward the improving of the audio-frequency amplification in his present receiver rather than in building a new one. This has been made possible through the development of high plate voltage and super power tubes and the perfection of current supply devices capable of supplying this high plate voltage and filament current to these tubes. Notable improvements have also been made in the audio amplifying transformers as well as speakers as a result of these recent developments in the tubes.

Many receivers built within the last year were designed for use for a maximum of 135 volts on the plate of the last audio tube, which in many cases was of the '01-A type, and consequently were good when first introduced but now are sadly lacking in performance when judged by today's standards. In such instances new audio units are being installed by the parts buyer or external amplifiers are being built to plug into the detector or first audio output stage. Even in the case of the newest A.C. sets the parts buyers are already prying into the audio-frequency end of them and substituting bigger and better audio-frequency transformers with correspondingly more powerful tubes and higher plate voltages, as well as better reproducers to match.

Here, then, is an opportunity which exists for selling parts not only to the inveterate set builder but even to the new A.C. set owner on the basis of better reproduction. With the confirmed set owner it is not nec-

essary to simplify matters any since he is usually capable of not only choosing but installing any or all the parts necessary to make the improvement. In the case of the set owner who is not a builder it is necessary to advise him in purchasing the parts and to simplify matters for him as to the installation. In the last case a harness arrangement with adaptors and a stage of power amplification will do the job.

S. C. Carson, manager of parts depart-

ment at the 42nd St. branch of the City Radio Stores, New York City, is one man who has recognized the merchandising possibilities of this idea. Most of his customers at this store are set owners and not builders as in the case of the other branches. When asked how he puts the idea across he replied: "I sell them on the basis of improving their own set. When a customer comes in with the idea of improving his reception, I first ascertain what is wrong

and usually find it is the reproduction. If the set is good enough I try to sell him the idea of improving it rather than build a new one, because the sale is much easier to make and the figures total just as much in the long run.

"I start him off with at least two new audio-frequency transformers at a price of \$10 to \$15, and even though he starts in a small way it isn't long before he is back for adaptors and power tubes for the last stage. From then on it isn't much of a job to get him back for an output transformer for his present speaker and even a new speaker to handle the increased power. Ordinarily, I am able to carry a customer through the whole transformation from a new transformer to a 210 power tube and power pack with a speaker that will handle the volume and faithfully reproduce it. Very often I am able to sell the customer a complete power pack on the start especially so when he is not very familiar with wiring.

"Of course the average set can be improved with two new transformers and one power tube," Mr. Carson concludes, "but, as a rule, we find that a customer is willing to go the limit for better reproduction.

### Are You Selling Your Customers Better Reproduction? These Are the Parts That Will Do It

*New Audio-frequency transformers.*

*Out-put transformers.*

*71 type tubes.*

*Out-put filters.*

*Power transformers.*

*Filament transformers.*

*Filament or gaseous rectifier tubes.*

*Filter condensers.*

*Filter chokes.*

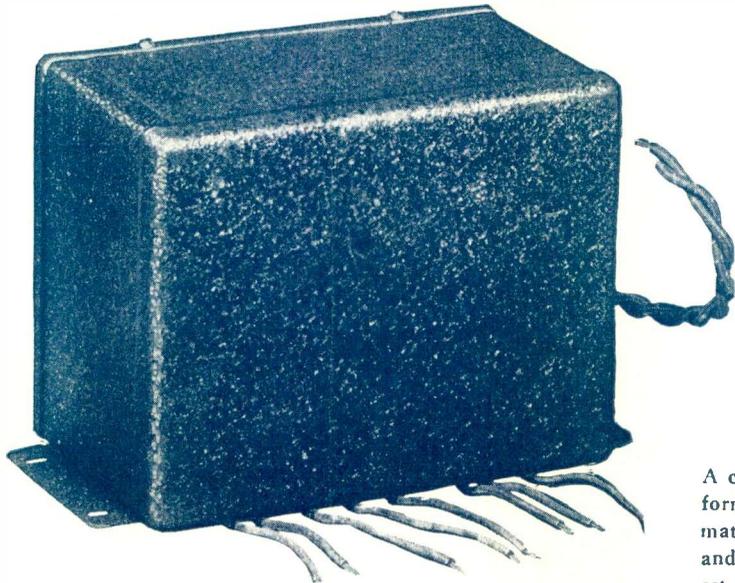
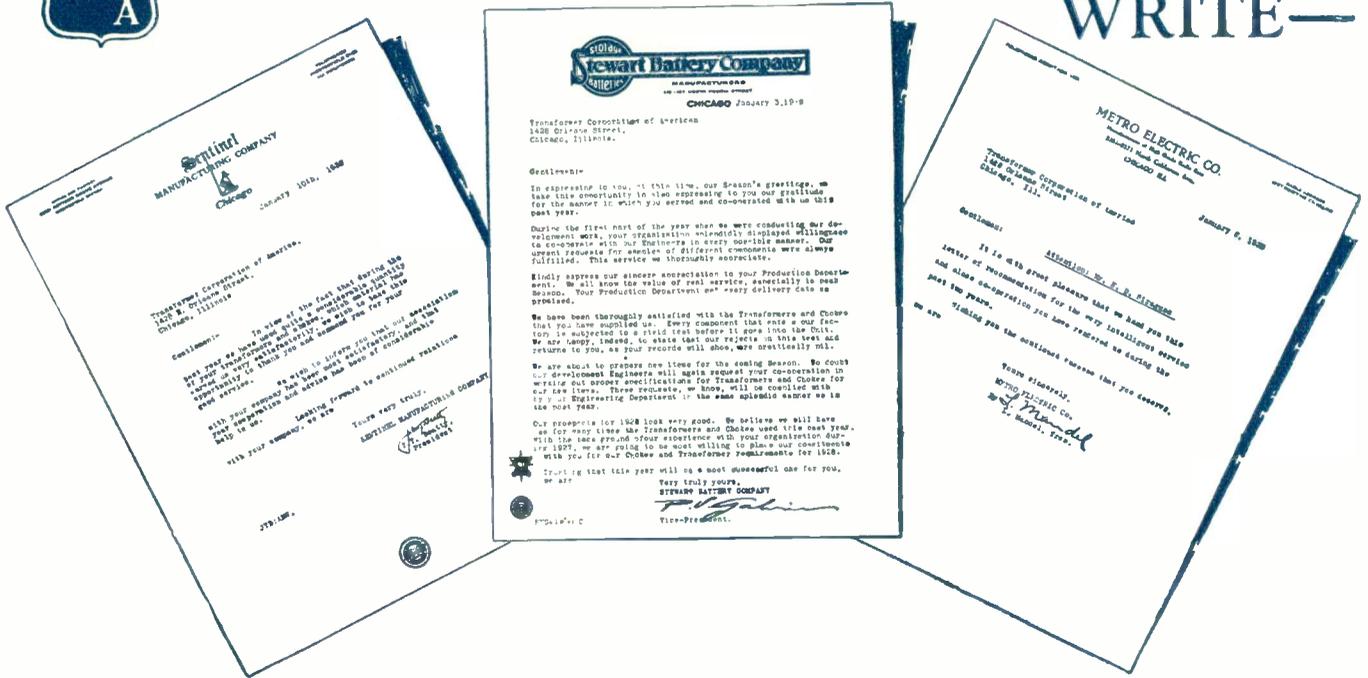
*Resistors.*

*Or—*

*A complete power pack and a more modern speaker.*



# LEADING MANUFACTURERS WRITE—



THE A.C. set requires *adequate power supply*. This year the complete A.C. set will have its power supply mounted on the chassis.

TCA recommends either the No. 302 or the No. 368 to those manufacturers building their sets around RCA, Ceco or similar types of tubes. Other power packs are built for Kellogg, Arcturus and Marathon A.C. tubes and using either the gaseous or filament type of rectifier. TCA builds to your specification.

**Set Manufacturers:** Write us your 1928 specifications and immediately after receipt of same, samples and quotations will be forwarded to you.  
**Jobbers and Dealers:** Write for the TCA line-up on power supply apparatus, and transformers and chargers for the 1928 Radio Season.

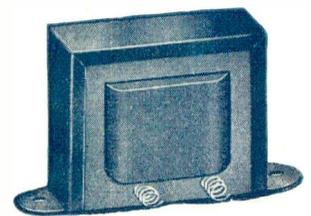
**No. 302 Power Pack**  
Dimensions 3 3/4 in. wide, 5 in. high, 6 1/4 in. long.  
Suitable for:  
6 or 7—226 tubes  
1—227 tube  
1—280 tube  
1 or 2—171 tubes  
Plate Voltage with proper condensers 225 V—50 MA.  
**No. 368 Power Pack**  
Dimensions 3 3/4 in. wide, 4 1/4 in. high, 5 3/4 in. long.  
Suitable for:  
4—226 tubes  
1—227 tube  
1—280 tube  
1—171 tube  
Plate voltage with proper condensers 180 V—35 MA.  
Both Power Packs contain two 30 henry chokes.

**M**ANY customers of the Transformer Corporation of America, who are representative of the leading radio manufacturers in the country today, have written to express their satisfaction with TCA products and service.

This organization, serving as it has an ever increasing number of radio manufacturers since 1923, is today most admirably equipped with its modern production methods, greater manufacturing facilities, and intelligent engineering staff, to deliver transformers in any number and of quality equal to that of *any other manufacturer*.

A complete line of audio transformers built of high grade materials with the utmost care and inspection—from the smallest type suitable for the lower priced receiver to the largest audio, capable of faithfully reproducing the lowest tones of any musical instrument.

These transformers are assembled with E and I pieces resulting in a completely closed core, by far the best known method of assembly. Highest silicon obtainable is used throughout, and together with a high primary inductance and an evenly distributed capacity, full and undistorted amplification over the entire musical range is made possible.



- SMALL**
- 501—output transformer
  - 502—(2-1)
  - 503—(3-1)
  - 504—(4-1)
- MEDIUM**
- 511—output transformer
  - 512—(2-1)
  - 513—(3-1)
  - 514—push-pull input
  - 515—push-pull output
- LARGE**
- 521—output transformer
  - 522—(2-1)
  - 523—(3-1)
  - 524—push-pull input
  - 525—push-pull output

**The Transformer Corporation of America**  
1428-1432 Orleans St., Chicago

# Pre-viewing the New Circuits



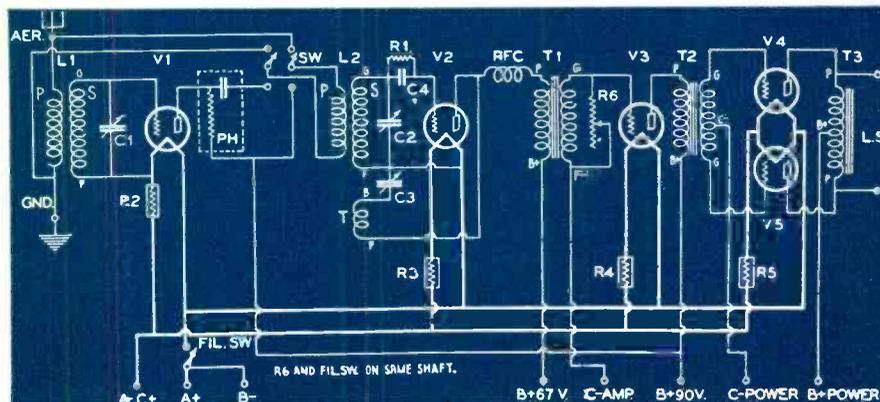
Current fan magazines are telling how to build the sets described on this page. Do you have the parts?

## The Radio News \$100 Prize Short-Wave Broadcast Receiver

**T**HIS special short-wave receiver which will be described in the April *Radio News* was designed as a flexible receiver, suitable for use on any wavelength band between 10 and 725 meters merely by plugging in the proper coils. A stage of tuned radio frequency has been placed before the usual regenerative circuit. Because of this additional tuned circuit, the receiver is very selective on wavelengths above 200 meters, even though small tuning condensers are utilized. The audio-frequency amplifier has been designed for quality reception; it includes one stage of straight transformer-coupled and one of push-pull amplification. Another point in favor of this receiver is that the constructor may purchase the coil mountings and two coils for the short-wave band at which the receiver is to be operated most frequently, and add the other coils later when finances permit. This feature alone is a good indication of the flexibility of this receiver.

The following is a list of parts required for this receiver:

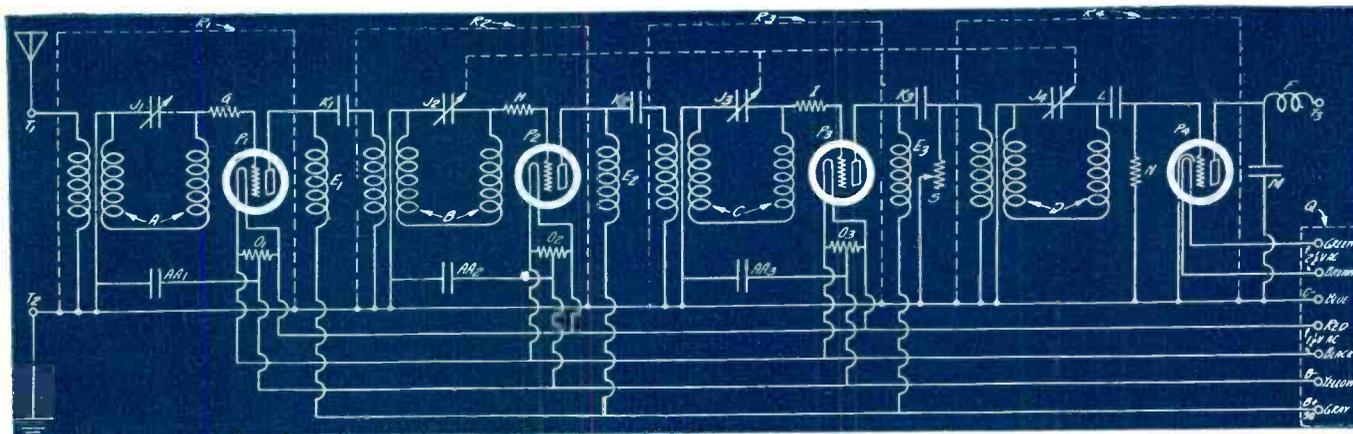
- L1, L2—Two sets of plug-in coils;
- C1, C2—Two S.L.F. variable condensers, .00014-mfd.;
- C3—One S.L.F. variable condenser, .00025-mfd.;



- C4—One mica fixed condenser, .00025-mfd.;
- T1—One A.F. transformer, 3:1 ratio;
- T2—One A.F. transformer, push-pull input type;
- T3—One A.F. choke coil, push-pull output type;
- R1—One grid leak, 5-megohms;
- R2, R3, R4—Three filament-ballast units, 5-volt, 1/2-amp. type;
- R5—One filament-ballast unit, 5-volt, 1/2-amp. type;
- R6—One 500,000-ohm volume-control rheostat and filament switch;

- RFC—One R.F. choke coil, 60-millihenries;
- PH—One oscillation control, variable resistor-condenser type;
- V1, V2, V3—Three tubes, '01A-type;
- V4, V5—Two power tubes, '71A-type;
- SW—One jack switch, D.P.D.T. type;
- Three tuning dials, vernier type;
- Five vacuum-tube sockets, UX-type;
- One panel, 7x24x 1/8 inches;
- One baseboard, 7x23x 1/8 inches;
- Three brackets, 3 inches high;
- Twelve binding posts;
- Two coil mountings.

## The New LC-28 for A.C. Operation



**T**HE new model of the LC-28 receiver to be described in the March number of *Popular Radio* incorporates all the outstanding features of the original set, described in the October, 1927, number of *Popular Radio*, and which was pre-viewed in the October issue of *Radio Retailing*.

It is designed to operate without batteries, utilizing the new A.C. valves and may be used with any good quality power amplifier that, in itself, is A.C. operated and that will furnish A, B and C voltages to the LC-28 high-frequency unit.

The general circuit arrangement is practically the same as in the D.C.LC-28. In place of the D.C. valves, however, are

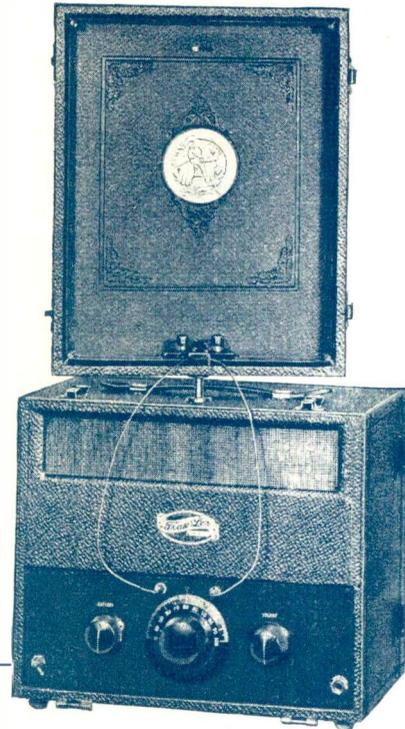
shown three A.C. filament valves in sockets P1, P2 and P3, while a heater type valve is employed in the detector socket, P4.

The following is a list of parts required to build this set:

- A, B, C, D—Radio-frequency transformers;
- E1, E2, E3—High-frequency chokes;
- F—High-frequency choke;
- G—Resistor, 500 ohms;
- H—Resistor, 600 ohms;
- I—Resistor, 700 ohms;
- J1, J2, J3, J4—Variable condensers, .000275 mfd.;
- K1, K2, K3—Condensers, .02 mfd.;
- L—Condenser, .00025 mfd.;
- M—Condenser, .00075 mfd.;
- N—Resistor, 6 megohms;
- P1, P2, P3—Four-prong sockets;

- O1, O2, O3—Center-tapped resistors, 10 ohms;
- P4—Five-prong socket;
- Q—Cable connector plug with cable;
- R1, R2, R3 and R4—Special aluminum box shields for LC-28;
- S—Variable resistor, 500 ohms;
- T1, T2 and T3—Plugs and tip jacks, marked Antenna, Ground, and Input, respectively, with insulating washers for the antenna and input;
- AA1, AA2, AA3—Bypass condensers, 1/2 mfd.;
- Three A.C. filament tubes;
- One A.C. heater tube;
- One aluminum chassis for LC-28;
- One aluminum panel for LC-28;
- One brass extension shaft;
- Two brackets;
- One dial;
- One resistor mounting.

# Will you head the list next month?



**NOW only \$77<sup>15</sup> complete**

\$57.50 stripped (East of Rockies)

\$60.00 stripped (West of Rockies)

Beginning next month and continuing each month, Trav-Ler Manufacturing Corporation will use a map of the United States showing the location of all Trav-Ler Portable Radio distributors — a convenience to dealers in locating their nearest distributor. At one side of the map will be listed each month the names of these distributors in the order of their sales volume on Trav-Lers for the previous month. Who will head the list next month?

The Trav-Ler Portable Radio—the original “one-man” portable—has always been a ready seller. This year with its many splendid improvements it is going over even bigger. And here's why:

Weights only 23½ pounds. All in one small case—loop aerial, batteries, five tubes, loud speaker. Single dial control. Jones plug for use with larger batteries or eliminator. Special attachment for use with antenna and ground. Beautiful black and gold color scheme. Loud volume. Sweet tone. Standard parts. Requires practically no servicing. Sound merchandising policy.

Mail the coupon for complete information. Trav-Ler Manufacturing Corporation, Dept. D, 3401 No. Halsted St., Chicago.

Trav-Ler Manufacturing Corporation, Dept. D, 3401 N. Halsted Street, Chicago

Please send me complete information about the Trav-Ler Portable Radio Receiver.

Name of Company \_\_\_\_\_ Attention of \_\_\_\_\_

Address \_\_\_\_\_ I am a { dealer  
distributor



Weights  
only 23½ pounds  
complete

## Portable Radio

# MANUFACTURERS and MARKETS

*Devoted to the Problems  
of the Manufacturer in  
the Design and Distribu-  
tion of Radio Apparatus*

A Section of *Radio Retailing*

March, 1928

## An English Survey of the American Patent Situation

*From "The Wireless Trader," London, England.*

THE patent situation is developing in the United States in a direction which will probably have a material effect upon wireless business in many markets of the world. It has long been a subject of complaint that whereas British makers have been mulcted in heavy patent royalties in respect of the wireless receivers they construct, and have been hampered in their overseas trading by severe restrictions upon the export of receiving sets, American makers have enjoyed the considerable advantage in many markets of paying no patent royalties whatever. This disparity has been particularly marked in Australia and New Zealand, where British and American competition in all classes of electrical goods is very keen.

The existing state of things seems likely to be considerably altered in the very near future as a consequence of recent activity on the part of the Radio Corporation of America, the company holding the American rights to the main body of wireless patents, covering approximately a thousand inventions in this line.

Following the victory in certain recent actions launched by the R.C.A. for infringement, and under the threat of further proceedings, American manufacturers during the past two or three months have been hurriedly concluding licensing agreements with the R.C.A., under which they will pay royalties in much the same way as manufacturers in other industrial countries.

In view of the widespread dissatisfaction which exists in British manufacturing circles with the patent royalties payable upon wireless receivers, it is interesting to compare some of the terms of the Marconi license with the one granted to American licensees by the R.C.A. As the basis of the British royalty is 12s. 6d. per valve-holder,\* it is a matter of some difficulty to express this as a percentage charge, or to show the exact incidence upon selling prices, but an examination of the prices of a dozen typical and largely selling instruments will reveal the fact that it may represent as much as 75 per cent of the net wholesale selling price of a cheap instrument, or only about 20 per cent in the case of an expensive set. With the payment of this amount, however, the

financial responsibility of the manufacturer begins and ends.

American opponents to the policy which is being enforced in the United States, point out that the Radio Corporation of America, though demanding only 7½ per cent upon the net invoice price of each instrument, stipulates that this price must include all accessories, which considerably increases the incidence of the contribution, while in place of being merely liable for payment of royalty on the sets actually sold, the American manufacturer under the terms of his license has to make himself liable for a minimum payment of \$100,000 per annum on account of royalties for a period of four and a half years, and this merely for the privilege of manufacturing tuned radio-frequency receivers.

The well-known supersonic heterodyne circuit is expressly excluded from the arrangement, and is reserved for the sole use of the R.C.A. in their own sets; while the main patents on the equally popular neutrodyne circuit are controlled by another company.

THE American manufacturer is only licensed to use his present manufacturing facilities, and he may not assign the benefits of the license without the consent of the R.C.A. He is further obliged to contribute his own mite to the consolidation of the wireless patent position in the hands of a trust by agreeing to license, at a reasonable price, the R.C.A. to use any patents which he may have or develop, such figure to be fixed by arbitration in case of dispute.

In marketing his sets, the manufacturer must supply them with a complete set of valves made by the R.C.A., which will have the double effect of increasing the amount upon which the 7½ per cent royalty is payable, and of providing the R.C.A. with a large and regular increase of business in valves without any selling expense. Finally, the manufacturer under the terms of the license must not export.

Compared with the arrangement just outlined, the position of the British manufacturer has certain consoling features, more especially as there is every likelihood of the existing 12s. 6d. royalty being substantially reduced. The difference in the position is very apparent when considera-

tion is given to the American guaranteed minimum payment of some £20,000 per annum for a term of years. Even in the States, where the home market is vastly greater than our own, it is only a small proportion of wireless manufacturers who would be able to undertake this liability without ultimate disaster.

It is useful to consider some of the effects of the present intensive patent licensing campaign in America. With the effect which increased prices will have upon the trade in the U.S. we are not particularly concerned, as there is only a very small quantity of British wireless goods exported to the destination; but the probable effect upon exports is more interesting.

AT the present time American wireless exports still maintain a short lead over those of any other country, but it would appear to be doubtful whether this lead could be maintained in the face of a substantial increase in American prices, and a continuance of the downward trend in British wireless prices which has been a feature of the trade for some years past. The limitation of the terms of the general license to home trade will also have an effect upon exports, and there needs to be further borne in mind the separate American neutrodyne patents (whose users will presumably have to contribute a further 5 per cent to the holders of these, in addition to 7½ per cent to the R.C.A.). The fact that the general manufacturer is precluded from using the supersonic heterodyne circuit will have yet a further restrictive effect upon exports to many destinations.

The valve policy embodied in the American licence, and which from all accounts is to be rigidly enforced, is bound to have an adverse effect upon the business of all American valve makers apart from the R.C.A. itself, but by diminishing so greatly the home demand for all other makes of valve the policy may apply an artificial stimulus to the export of valves to overseas markets.

A widely held American view (apart, of course, from the two or three dozen makers who have so far concluded licensing agreements, who are at present contending that the policy is the only sane and right one) is that if the R.C.A. program succeeds to any considerable extent, it will have the effect of driving out of the business the majority of the smaller manufacturers of sets, and with them a large proportion of the manufacturers of valves and accessories.

It may be taken that the opposition is mainly on the score of finance, but it is also pointed out with a certain amount of justice that a virtual monopoly of all patents in any branch, and the concentra-

\*In England, tubes are known as valves.

# NEW TUBES FOR OLD



Type 388

## VACUUM TUBE REACTIVATOR

An instrument for testing and restoring thoriated vacuum tubes

PRICE .....\$45.00

Realizing the value to the dealer of a simple device for testing and reactivating tubes the General Radio Company has developed the Type 388 Vacuum Tube Reactivator which operates from the 110-volt, 60-cycle A.C. line. No batteries or other equipment are necessary to the operation of this instrument. Sockets are provided whereby the correct voltage for testing, flashing, and "cooking" are automatically obtained without any adjustment whatever. The emission of the various tubes that have oxide-coated filaments can likewise be tested by this instrument.

# GENERAL RADIO CO.

MANUFACTURERS OF QUALITY RADIO APPARATUS

*Bulletin No. 929 describing complete line of quality radio apparatus will be sent on request.*

30 STATE ST., CAMBRIDGE, MASS.  
274 BRANNAN ST., SAN FRANCISCO, CALIF.

tion of control over an industry under one balance sheet, is liable to hamper its full development. Under such an arrangement there is always a risk that innovations which may threaten to make existing assets obsolete may be placed on the shelf rather than exploited.

The opposition also allege that the pooling of competing patents is contrary to American Anti-Trust Laws, and though it is difficult for any foreigner and layman to express an opinion upon an American legal point of this kind, it hardly seems probable, to say the least of it, that, considering the high quality of the legal advice which is apparent both in the agreements and the whole patent policy of the holders, their whole position would be founded upon a direct violation of anti-trust laws!

The Radio Corporation of America was established to acquire the American rights to the Marconi patents, and subsequent agreements made with the Westinghouse Electric, the General Electric, the Federal Telegraph and other concerns gave it, in addition, control over the wireless patents of these companies.

Many agreements of various kinds have been concluded between these big concerns—one of the agreements, it is believed apportioning the bulk of the valve manufacturing in the country to the General Electric Company. The remainder of them apparently concentrate on a comprehensive scheme of patent cross-licensing, which, as has been shown, virtually leaves the whole industry in the control of a single group.

## What the World Wants

Listed below are some specific inquiries for American goods received in the Department of Commerce, Bureau of Foreign and Domestic Commerce, at Washington, D. C. To obtain confidential information, it is necessary only for American exporters to apply to the nearest office of the Bureau or at Washington, giving the number or numbers of the inquiry or inquiries in which they are interested. An asterisk (\*) indicates that the inquirer would act as both purchaser and agent.

EGYPT—29005. Radio sets and parts.

FRANCE—29650. Radio sets and parts.

GERMANY—29006. Radio sets and parts.

ITALY—29007. Radio sets and parts.

JAVA—\*28944. Radio sets and parts.

NEW ZEALAND—29008. Radio sets and parts.

## New Radio Patents January 17, 1928

### DESIGNS

74,247. Combined Cabinet and Antenna for a Radio Receiving Set. John Lane Allen, Prides Crossing, Mass.

### PATENTS

1,656,178. Radio Control Mechanism. Antonio Di Stasio, New York, N. Y.  
1,656,209. Transformer for Radio Circuits. Stanley D. Livingston, Freeport, N. Y. Assor. to Eisenmann Magneto Corporation, Brooklyn, N. Y.  
1,656,225. Electric Wave Filter. Mendel Osnos, Berlin, Germany. Assor. to Gesellschaft für Drahtlose Telegraphie m. b. H. Hallesches, Berlin, Germany.  
1,656,425. Microphone. Berkey E. Cover, Chicago, Ill.  
1,656,431. Electrical Condenser. Ludwig Edinburg, New York, N. Y. Assor. to Dubilier Condenser Corporation, New York, N. Y.  
1,656,442. Single-Dial Control for Radio Receiving Apparatus. Louis Mandel, Chicago, Ill.  
1,656,520. Frequency-Sequence Selector or Frequency Determining Apparatus for

Radio Circuits. Moses Jacobson, New York, N. Y. Assor. or one-half to William A. Schacht, Brooklyn, N. Y.

1,656,532. Dial Mechanism for Radio Apparatus. William A. Ready, Brookline, Mass.

1,656,712. Sound-Reproducing Apparatus. Adolph A. Thomas, New York, N. Y.

1,656,775. Antenna. Harry B. Clyatt, Grand Rapids, Mich.

1,656,839. Means for Preventing Retro-active Effects in Audion Amplifier Circuits. George A. Somersalo, New York, N. Y.

### JANUARY 24, 1928 DESIGNS

74,292. Radio Cabinet or Similar Article. John M. Beach and George Fletcher, Grand Rapids, Mich. Assor. to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y.

74,318. Radio Receiving Set. Leo Potter, Malba, N. Y. Assor. by mesne assignments to Algonquin Electric Company, Inc., New York, N. Y.

### PATENTS

1,657,105. Wireless Synchronizing Clock System. James W. Bryce, Bloomfield, N. J. Assor. to International Time Recording Company of New York, Endicott, N. Y.

1,657,124. Reproducer. Harry H. Ide, La Grange, Ill. Assor. to Kellogg Switchboard and Supply Company, Chicago, Ill.

1,657,135. Variable Condenser. James G. Record, Gardena, Calif.

1,657,166. Condenser. Jacques Le Gaucear, Chicago, Ill.

1,657,208. Vacuum Tube. Valentine Ford Greaves, Oakland, Calif. Assor. to The Magnavox Company, San Francisco, Calif.

1,657,216. Sound Reproducer. Frank D. Lewis, West Orange, N. J. Assor. to Pathe Phonograph and Radio Corporation, Brooklyn, N. Y.

1,657,221. Vacuum Tube. Herbert E. Metcalf, San Leandro, and Valentine Ford Greaves, Oakland, Calif. Assors. to The Magnavox Company, San Francisco, Calif.

1,657,390. Sound Eliminator for Radio Tubes. Abraham Nalkman, New York, N. Y.

1,657,396. Method of and Apparatus for Amplifying Electrical Signal Impulses. Henry F. Herbig, New York, N. Y. Assor. to The Commercial Cable Company, New York, N. Y.

### JANUARY 31, 1928

1,657,451. Nonsinging Reamplifying Circuits. Herman A. Affel, Brooklyn, N. Y. Assor. to American Telephone and Telegraph Company.

1,657,462. Nonsinging Reamplifying Circuits. Lloyd Espenschied, Hollis, N. Y. Assor. to American Telephone and Telegraph Company.

1,657,498. Radio Signaling System. Charles S. Demarest, Ridgewood, N. J., and Milton L. Almquist, Brooklyn, N. Y. Assor. to American Telephone and Telegraph Company.

1,657,567. Method of Receiving Electrical Oscillations. Hiram D. Currier, Chicago, Ill. Assor. to Kellogg Switchboard and Supply Company, Chicago, Ill.

1,657,570. Sound Transmitting and Receiving Diaphragm. Hermann Fischer, New York, N. Y.

1,657,587. Electrical Pulse Generator. Michael Idvorsky Pupin, Norfolk, Conn.

1,657,636. Vacuum Tube and Method of Constructing the Same. Herbert E. Metcalf, San Leandro, Calif. Assor. to The Magnavox Company, Oakland, Calif.

1,657,637. Filament Support for Vacuum Tubes. Herbert E. Metcalf, San Leandro, Calif. Assor. to The Magnavox Company.

### FEBRUARY 7, 1928

#### DESIGNS

74,360. Radio Speaker Stand. Isaac De Kaiser, Pittsburgh, Pa.

74,364. Speaker Resonator or the Like. Peter Herdic Fuller, Dobbs Ferry, N. Y.

#### REISSUES

16,870. Means for Transforming Light Impulses into Electric-Current Impulses. Theodor Hendrik Nakken, Jersey City, N. J. Assor. to Naamlooze Vennootschap Nederlandsche Luminotron Maatschappij, Rotterdam, Netherlands.

#### PATENTS

1,658,162. Means for Generating Electric Oscillations of High Frequency. Charles Samuel Franklin, Buckhurst Hill, England. Assor. to Radio Corporation of America.

1,658,215. Current-Wave Transmission. Harald J. Vennes, New York, N. Y. Assor. to Western Electric Company, Incorporated, New York, N. Y.

1,658,337. Carrier-Wave Signaling System. Jacob S. Jammer, New York, N. Y. Assor. to Western Electric Company, Incorporated, New York, N. Y.

1,658,338. Two-Way Repeater. Jacob S. Jammer, New York, N. Y., and Charles W. Green, Millburn, N. J. Assors. to Western Electric Company, Incorporated, New York, N. Y.

1,658,339. Carrier-Wave Transmission. Jacob S. Jammer, Sydney, New South Wales, Australia. Assor. to Western Electric Company, Incorporated, New York, N. Y.

1,658,346. Amplifier Circuits. Robert C. Mathes, New York, N. Y. Assor. to Western Electric Company, Incorporated, New York, N. Y.

1,658,349. Speaker Receiver. Charles R. Moore, Maplewood, N. J. Assor. to Western Electric Company, Incorporated, New York, N. Y.

1,658,427. Means for Variably Controlling Electrical Instruments. Allen D. Cardwell, Rockville Center, N. Y.

1,658,479. Speaker. John Depew, New York, N. Y. Assor. to Ignatz Lauter, New York, N. Y.

1,658,512. Vernier Dial. Le Bonsieur, Elyria, Ohio. Assor. to The General Industries Company.

1,658,562. Radio Receiving Apparatus. Arthur Atwater Kent, Ardmore, Pennsylvania.

1,658,592. Radio Antenna. Willis Eugene Everett, San Rafael, Calif.

1,658,638. Wave Signaling System. Louis A. Hazeltine, Hoboken, N. J. Assor. to Hazeltine Corporation, Jersey City, N. J.

1,658,643. Radio Signaling Apparatus. Ralph H. Langley, Schenectady, N. Y. Assor. to General Electric Company.

1,658,653. Vacuum Tube. Michael Renner, Scotia, N. Y. Assor. to General Electric Company.

1,658,660. Signaling System. Oliver C. Traver, Schenectady, N. Y. Assor. to General Electric Company.

1,658,664. Variable-Ratio Transformer. Frederick P. Brand, Pittsfield, Mass. Assor. to General Electric Company.

1,658,666. Variable-Resistance Device. Charles E. Burgener and Ralph M. Harmon, Louisville, Colo.

1,658,672. Electron-Discharge Apparatus. Albert G. Davis, Schenectady, N. Y. Assor. to General Electric Company.

1,658,740. Radio Receiving System. Chester W. Rice, Schenectady, N. Y. Assor. to General Electric Company.

1,658,761. Radio Antenna. Joseph F. Crance, Fort Wayne, Ind.

1,658,768. Electrical Condenser. Jacob Katzman, New York, N. Y. Assor. to Dubilier Condenser Corporation, New York, N. Y.

### FEBRUARY 14, 1928 DESIGN

74,724. Radio Cabinet. Joseph M. Ghormley, Toronto, Ontario, Canada. Assor. to Brandes Laboratories, Inc., Newark, N. J.

#### REISSUE

16,882. Radio Vision Mechanism. Charles Francis Jenkins, Washington, D. C.

#### PATENTS

1,658,825. Radio Central-Station System. Donald L. Wolk and Roy G. Keil, Denison, Iowa.

1,658,851. Directive Radio Repeating System. De Loss K. Martin, Orange, N. J. Assor. to American Telephone and Telegraph Company.

1,658,866. Vernier Rheostat. Chester H. Thordarson, Chicago, Ill.

1,658,914. Salt for Electrolytic Rectifiers. Fred W. Barhoff and William C. Brooks, Meriden, Conn. Assors. to The Hartford Battery Manufacturing Company, Southington, Conn.

1,658,946. Grid Electrode for Electron-Discharge Tubes. Eduard Schrack, Vienna, Austria.

1,658,970. Radio Frequency Transformer. Herbert C. Colburn, San Leandro, Calif.

1,659,084. Radio Trap. Guy S. Cornish, Cincinnati, Ohio. Assor. to The Cincinnati Patent Engineering Company, Cincinnati, Ohio.

1,659,175. Electron-Emitting Material and the Preparation Thereof. Thomas Philip Thomas, Bloomfield, N. J. Assor. to Westinghouse Lamp Company.

1,659,200. Electric Transmission of Graphic Representation. Charles Francis Jenkins, Washington, D. C.

1,659,309. Veneered Panel for Radio Cabinets. Frederick H. Auld, Columbus, Ohio.

# FROST-RADIO ACCESSORIES

That mean satisfied customers

Here are three accessories in the Frost Line that are big sellers. Are you handling them in your store? If not then by all means secure a supply at once. Every customer needs a pair of sensitive Frost-Fones, a Frost-Jac-Box and Frost Adapters. They are indispensable.



**FROST-JAC-BOX**

One of our most popular accessories. Use it for increasing the jack capacity of any set. Complete with cord and plug. List, \$2.50. You can sell a lot of these when you display them in your store.



**FROST-ADAPTERS**

Genuine Bakelite No. 611, List 60c., changes UV199-C299 to UV base. No. 349 changes UX199-CX299 to UV base. List, 25c.

**FROST-FONES**

\$3.00 \$3.50  
\$6.00

The best-selling head fones made. Every DX hunter needs a pair. Aluminum shell or Bakelite shell type. Order today.



**FROST-RADIO**

**HERBERT H. FROST, INC.**  
Main Offices and Factory, ELKHART, IND.

**HERBERT H. FROST, INC., ELKHART, IND.**

Tell me more about your accessories, including Frost-Fones, Frost-Jac-Boxes and Frost-Adapters, as advertised in *Radio Retailing*, March.

Name .....

Address .....

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

# CONDENSERS

for the Manufacturer

WE ARE equipped to produce in quantities, any type of paper condenser or any combination of capacities, for any working voltage up to 1,250 volts D.C.

We will be pleased to quote prices upon receipt of blue prints of your requirements.



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**CLIP TIME OFF WIRING JOBS**  
BY USING



An Insulating Cap with a split screw that bites twisted wire ends.

Approved by the Underwriter Lab.  
Cartons of 100 — Standard Package 1000

For Free Working Samples Sign Below and Mail

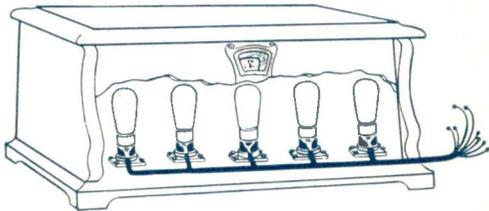
Name .....

Address .....

**COLT'S PAT. FIRE ARMS MFG. CO., HARTFORD, CONN.**



## A-C ADAPTOR HARNESS



From Battery to House Current  
Without Rewiring

The Corwico A-C Harness offers a way out to those dealers and jobbers who are over-stocked with obsolete storage battery receivers. With Corwico A-C Harness these sets can be easily and quickly changed to house-current receivers and moved on to the consumer—enabling dealers and jobbers to turn such old stock into cash. Every customer to whom you have sold a battery set is a prospect for a Corwico A-C Harness. Stock them now and cash in on the demand for A-C operation.

Made in Two Types

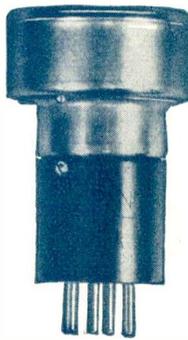
Corwico A-C Harnesses are made in two types—one with adaptors attached for R.C.A. and other A-C type tubes and one without adaptors for Arcturus A-C tubes.

Write for Particulars

**CORNISH WIRE COMPANY**  
30 CHURCH STREET, NEW YORK CITY



Every Set Owner  
Is Ready To Buy  
This NEW  
**BEEDE**



\$2.50  
LIST

Socket Test  
Meter

Tests Where Tests  
Should Be Made

At Last B Power can be measured where it should be measured. The BEEDE Socket Test Meter not only checks up the strength of the battery and eliminator, but also indicates power losses due to open circuits or deterioration of tubes. Tubes may be taking too much current, other tubes may be receiving too little. Replacing each tube in turn with this simple BEEDE Socket Test Meter reveals instantly many sources of interference that would otherwise take hours to discover. It can be used on all types of sets, including those electrically operated. The BEEDE Socket Test Meter takes the same amount of current as the tube.

Socket Test Meter also made with A.C. Meter for testing filament voltage of all sockets in electric sets. Set owners have long wanted a socket test meter. BEEDE is again the first to meet a universal radio need.

**BEEDE ELECTRICAL INSTRUMENT CO.**  
136 LIBERTY ST., NEW YORK

# BEEDE METERS

# Trade Generally Good

## Boston

*"Slack Industry"*

This district spotty but sales for the holiday season and the first month of year better than last year according to a few large distributors. Adverse reports are also noted. Reception conditions are good, prices are right, and payments are easy, yet buying is dull due to slack industry. All-electric sets in the forefront. Accessory sales are encouraging but battery sales are less and speaker records falling off earlier this year. Prospects for shortening up of sales season evident. Business peak seems to have passed in this district for this season.

## St. Louis

*"Healthy Condition"*

Very unfavorable sales during November and December but most satisfactory sales in January and February. Sets, accessories and parts have all been enjoying good market. B battery sales have been on up grade. Total lack of dumping in St. Louis has allowed healthy condition to show constant improvement. Sales curve here expected to broaden by over sixty days and June political conventions expected to create interest necessary to stimulate needed summer business on right basis.

## Detroit

*"Demand Exceeding Supply"*

Excellent season and considering general condition business is holding up remarkably well for this time of year. Demand for electric sets of most makes has exceeded supply all season and some distributors report business for last five months last year exceeded previous twelve months. December and January were biggest months in history and stock at present is entirely cleaned out with many orders on hand. Some others not so successful but all who have been able to get electric models have shown increases. Little demand for battery operating sets but many dealers are selling them by equipping with socket power units. Very little dumping of sets as in previous seasons except socket power devices. General business improving particularly automotive industries and trade is optimistic.

## Los Angeles

*"Spotty but Good"*

Business spotty but aggregate radio sales in southern California for January far exceeded December. Delivery of A.C. sets has greatly stimulated business in leading makes while sales of accessories and less known set lines have decreased. Power units using storage batteries have been hard hit but D.C. sets are still in the running, accounting for about ten per cent of sales. No serious dumping of battery operated sets nor disrupting cut-price sales. Dealers moving D.C. stock by using A.C. harness. Expect good Spring and Summer as sales in automotive trades increases general prosperity, and as public confidence grows in A.C. sets.

## San Francisco

*"Trade Low but Confident"*

General trade conditions about ten per cent under normal in northern California despite scattered reports indicating good business with individual retailers. Dealers disturbed by rumors of new shielded grid tube and show tendency to buy sparingly. D.C. set situation clearing up although jobbers still overloaded. Eliminator market suffers from price cutting. Hope expressed that when prompt deliveries of A.C. lines can be promised situation will clear up. Word from music trade more cheerful indicating good demand for expensive type combination sets with marked increase over last year. Trade shows conservative confidence in improvement for future.

## New Orleans

*"Business Good"*

January sales below last year but larger than December. February sales equalled December which repeats the experience of last three years and proves that the holidays are not as important factors in radio sales as clear mid-winter reception. Good business this year is also attributed to steady and growing demand for A.C. sets. Fairly active sales of batteries for replacements. The set sales are concentrated on popular A.C. models.

## Toronto

*"Trade Brisk, Outlook Good"*

Business holding up better than expected. Sets still being sold in fair quantities at regular prices with a brisk trade in bargain receivers such as discontinued lines, trade-ins and demonstrators. February sales as good as January. Most dealers claim gains of from 10 to 25 per cent over last year's total at this time. Socket power devices are being sold steadily with D.C. tube receivers but A.C. sets have the call, mostly one dial six tube consoles with built in speakers. Still a good market for separate speakers, cone types predominating. Trade-ins on battery sets will be a feature of future selling. Jobbers are interested in harness for converting battery sets. Most dealers look forward to brisk business this Spring, if reception conditions are favorable.

## Denver

*"25% Above Last Year"*

Business in the inter-mountain territory is beyond expectations, the first six weeks of this year being about 25 per cent better than the corresponding period of last year, due to general prosperity of this district. Retail stocks have been allowed to run low in anticipation of the usual Spring slump, with the result that both wholesalers and retailers are buying in a manner never before experienced at this season of the year. A.C. sets and good quality power units are leading resulting in very satisfactory volume and indicating that radio in the inter-mountain district is rapidly developing into an all year business. The entire trade is very optimistic and the prospects for Spring could not be better.

## Atlanta

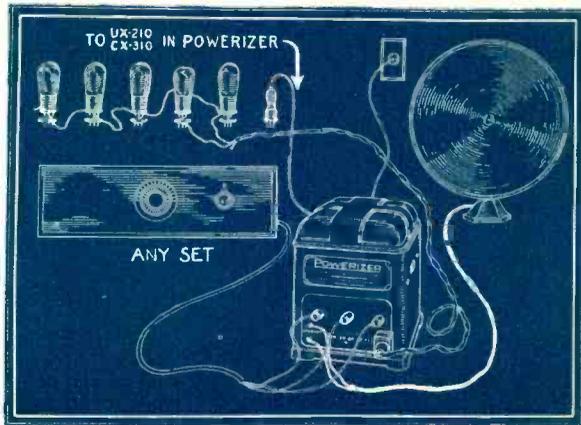
*"Sudden Relapse"*

Sales for January exceeded the best expectations of most optimistic dealers and distributors but suffered a sudden relapse during February. Problem confronting the trade now is how to revive this business. A.C. operation has replaced the old form of D.C. set and there is a certain inclination on the part of many dealers to dump their D.C. sets since A.C. operated receivers are available from all stock suppliers. Thus far, however, orderly merchandising of both types of receivers continues since there are no heavy stocks of D.C. sets in either jobber or dealer stocks. Demand is for the two extremes in low and high priced A.C. receivers. Outlook for first part of 1928 not promising as general business conditions are at a very low ebb.

## San Antonio

*"Heavily Increasing Sales"*

Steadily increasing demand here during the current season with a heavy increase since annual radio show in January, and all firms are in excellent condition. Combination sets have sold well but heaviest demand for A.C. sets. Radio accessories sales good due to extensive publicity given by local newspapers in announcing new chain hook-up. General business conditions are better than in several years. Collections have been good and there has been an increase in cash sales. Predictions for a good business from rural districts as well as city.



Showing how Powerizer supplies Powerized amplification direct to speaker, as well as power for A. C. tubes in set. Note harness with adapters holding A. C. tubes. These adapters fit into sockets of set—eliminating rewiring.

## POWERIZER

makes every set  
a power amplified  
De Luxe A C Receiver

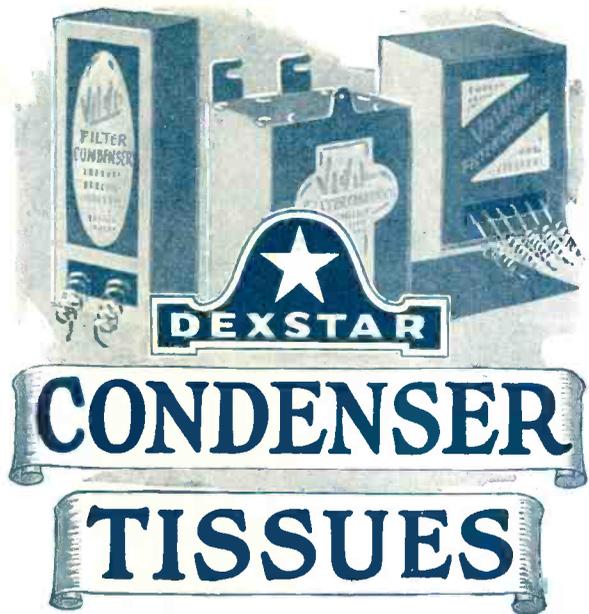
With the Powerizer you do far more than make every radio just an A.C. electric—you make it a power amplified De Luxe A.C. electric—a set that gives the finest tone quality in radio. Powerizer is the same tone and power plant that is used in the \$800 and \$1,000 De Luxe radios and phonographs. Powerizer is made by the pioneers in powerized amplification—and only through Powerized amplification—the use of the UX-210 tone quality A.C. radiotron can the finest tone quality be realized. Only with Powerized amplification can you get those rich deep tones.

POWERIZER the proven permanent source of power—is now supplying A.C. operation with A.C. radiotrons on thousands of sets throughout the country.

POWERIZER is licensed under United States patents—Radio Corporation—General Electric Co.,—Westinghouse Electric and Manufacturing Co., American Telephone and Telegraph and patent applications pending.

There is a Powerizer for every make of set from a tuned radio frequency to a super-heterodyne. General model for all standard sets with harness—\$60.00—for Radiola 20—\$59.00—special Powerizer and power pack designed exclusively for Radiola “25” and “28”—\$84.00. Bulletins RM 1018-1019 give latest details on Powerization. Send for it.

**RADIO RECEPTOR COMPANY**  
106 7th Avenue, New York City

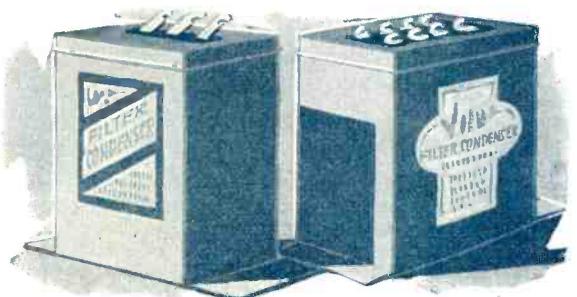


**NO** Radio set is any better than its weakest link, and the weakest link is very often a filter Condenser. No Condenser is any better than the thin strips of Insulating Tissue which separate the layers of metal foil. A pinhole or a speck of metal in the Condenser Tissue means a break down of the Condenser, with the entire set put out of commission.

**DEXSTAR** Condenser Paper is regarded by Radio experts as being the highest grade Insulating Tissue ever made—the freest from defects, the most uniform in quality, the most lasting under exacting and unusual requirements. **DEXSTAR** Condenser Tissue is the specialized product of a paper mill which has excelled in Tissue Paper production for three generations.

DEALERS should have the assurance that Condensers which they market are made with **DEXSTAR** Condenser Tissues. It is insurance against many customers' complaints. The leading Condenser manufacturers are now using **DEXSTAR** Condenser Tissues exclusively.

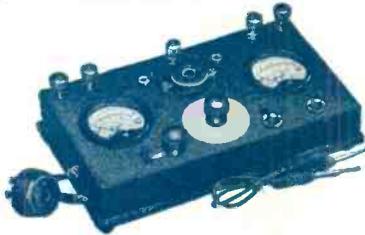
**C. H. Dexter & Sons, Inc.**  
*Makers of Highest Grade Thin Papers*  
Windsor Locks, Conn.



# Hoyt

NEW  
UNIVERSAL  
TUBE-TESTER  
MODEL 400

for  
A.C.  
and all other  
TUBES



NOW you can test your A.C. Tubes on this new Hoyt Tube Tester made specially for testing A.C. Tubes of all types, including the UY-227 and Kellogg types.

A Necessity for all Dealers in A.C. sets

Takes its operating power from either:

- (1) Batteries.
- (2) The A. C. lighting line—with the addition of a filament transformer.
- (3) A receiving set tube socket—by means of a special plug and leads.



D.C. Tubes can be tested too—with either D.C. or A.C. on the filaments.

Complete description of its operation will gladly be sent on request. Write for it.

Price (including adapter) \$35.00

Hoyt Electrical Instrument Works  
857 Boylston St., Boston, Mass.

Tests Tubes Quickly and Accurately

# Readrite

Type AA  
Home Tube Tester



TYPE AA

Price \$3.50

Includes Cord and Plug

A practical device for the set owner. Invaluable in weeding out tubes that do not function properly. Gives readings in filament voltage and also plate current in milliamperes, either 3 or 5 volt tubes. The grid switch gives two plate readings.

Undoubtedly the greatest value ever offered in a home tube tester. Extremely simple to operate. Is accurate and gives quick tests of tubes. A quick seller that carries a good profit. Order sample today.

Readrite Meter Works

6 College Ave. Established 1904 Bluffton, Ohio

# THE "POWER" PUSH-PULL AMPLIFIER

List  
\$38.00  
including  
2 R.C.A.  
UX-171  
tubes

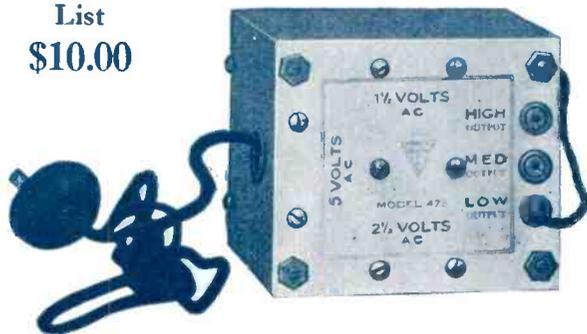


Specially designed transformers having a very high primary impedance and also a high turn ratio and power tube are responsible for the amazing results obtained by connecting this amplifier between the receiving set and loudspeaker. If the set had a UX-112 power tube in the last audio stage the undistorted output is increased about 10 times (1400 milliwatts) and the audio amplification about 4 times. This is a greater output than can be obtained from a 210 tube and 400 volts.

—and the

# A.C. TRANSFORMER

List  
\$10.00



For supplying Raw A.C. to A.C. Tubes

This transformer has a feature which gives long life to the UY-227 Detector tube. It is also supplied with a harness all connected and the necessary by-pass condensers and resistance units within the transformer case for adapting sets to "A.C." tubes. List price \$25.00.

Write for Details

Both made to the Highest  
Quality Standard by

Harold Power, Inc.

MEDFORD, MASS.

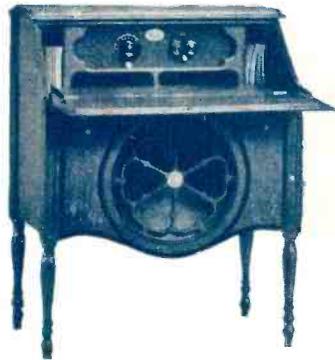
Licensed by Patents Owned or Controlled by  
The Radio Corporation of America

*A popular priced combination  
that's going over BIG!*



## Red Lion Cabinet

with  
The New ATWATER KENT  
Model 37 A. C.



*SALES* for the first two months of the year already prove that Red Lion-Atwater Kent combinations for A. C. operation are to be one of the best sellers for the year.

A Red Lion Cabinet and an Atwater Kent A.C. Set, at a price within the range of all your customers, has exceptional sales value—a big money maker for you.

Atwater Kent Distributors can supply you with desk, console and chest type Red Lion Cabinets to fit the new Atwater Kent Model 37 A.C. Radio. This will in no way, however, interfere with the regular line of cabinets for Atwater Kent Models 35, 30, 33.

Shown above is the Red Lion Cabinet Model 30, to accommodate Atwater Kent Model 37 A.C. Radio and Atwater Kent Model E Speaker. Combination retails for only \$152.

*Send for further particulars about our complete line of models and our merchandising program.*

**RED LION CABINET COMPANY**  
Red Lion, Pa.

# SONATRON

*offers the latest developments in*

## AC TUBES

**X226 AC—  
Y227 AC and  
the X401 A!**



SONATRON offers a complete line of AC tubes—the X226 AC, the Y227 AC and the X401, which is of the top-heater type.

Thus SONATRON dealers are in a position to render the most complete AC tube service, and to cash in fully on the profit possibilities of AC tube demand . . . SONATRON makes also, every type of rectifying tube; the X280, X281 and the gas-filled SH 85. Write for the SONATRON proposition!

*Have you been following the*  
**SATURDAY EVENING POST  
CAMPAIGN** which has brought  
New Triumphs to  
*"The World's Largest  
Radio Tube Line"*

**SONATRON TUBE CO.**  
108 West Lake Street, Chicago  
320 Lafayette Bldg., Detroit  
16 Hudson Street, New York City  
88 Eighth Avenue, Newark, N. J.

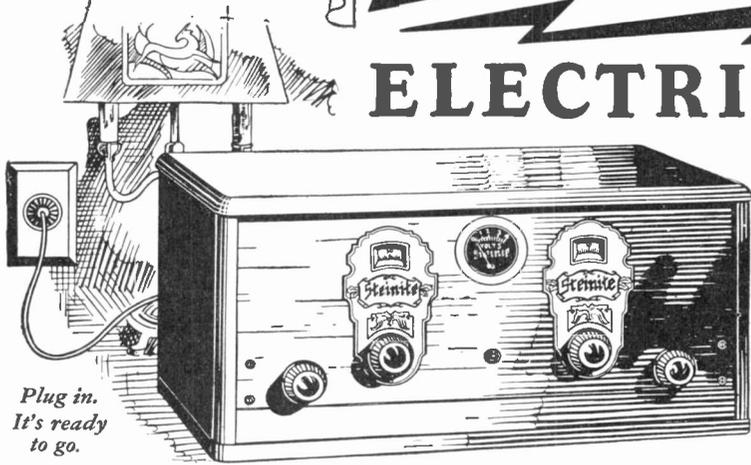
# SONATRON

-from jobbers, from dealers, from users  
**NOTHING** but **PRAISE** for

The **NEW**  
one unit

# Steinite

## ELECTRIC RADIO



Plug in.  
It's ready  
to go.

still **\$85**

AMERICA'S LOWEST PRICE!

"... have never been connected with a manufacturer with a finer and cleaner policy... a splendid business on the Steinite... one of our accounts having 5 stores, advise us that they return less machines to us for adjustments, than other makes" *Schram & Ware, Jobbers, Seattle*

"... sold more than 500 Steinite Electric Radio sets... minus from service troubles... customers recommended them to others... the radio that is practically free from troubles" *Crowley, Milner, Dealers Detroit*

"... well pleased, I am with my set... relief and pleasure it is not to have batteries to worry about... 101 different stations... my praise for a Steinite is A-1" *Robert Schultz, Toledo*

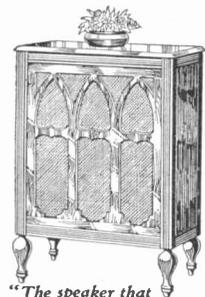
Our files are filled with thousands of similar testimonials.

©1928 Steinite Radio Co.

**UNANIMOUS!** Jobbers, dealers, users, give their unstinted recommendation to Steinite's policies, Steinite service-free operation and super-performance. The combination of TRUE electric radio—time-tested—and America's most sensational value at America's lowest price, has enabled Steinite jobbers and dealers to enjoy a turn-over never before experienced, and to set a new high-mark for profit-takings. The Steinite Model at \$85 is sweeping the country, backed by Steinite's strong, consistent national advertising! Uses no batteries, no liquids, no outside attachments—it is complete in one unit. Write for the Steinite proposition!

### NEW! and a Success — THE STEINITE SPEAKER

The Steinite speaker is a worthy companion to the Steinite Electric Radio, and although introduced a few short weeks ago, has scored one of the most sensational successes in radio history. You are invited to write for details.



"The speaker that thrills musicians"

THE STEINITE RADIO CO.  
506 S. Wabash Ave. • Chicago

Mail the  
Coupon  
NOW!

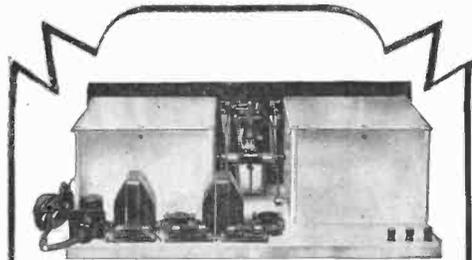
STEINITE RADIO COMPANY  
506 S. Wabash Avenue, Chicago, Ill.

Send me full details of your new model, your new speaker, and the Steinite proposition.

Name.....

Address.....

City.....



The Hammarlund "Hi-Q" Receiving Set which uses box shields of Alcoa Aluminum Sheet and special corner post moulding.

### Every Amateur is a Prospect for Aluminum Shields

Aluminum Box Shields are helping amateurs to get *greater distance, better selectivity — closer tuning*. Their use eliminates or greatly reduces interference. *They are ideal for shielding circuits using the new shielded grid tubes.*

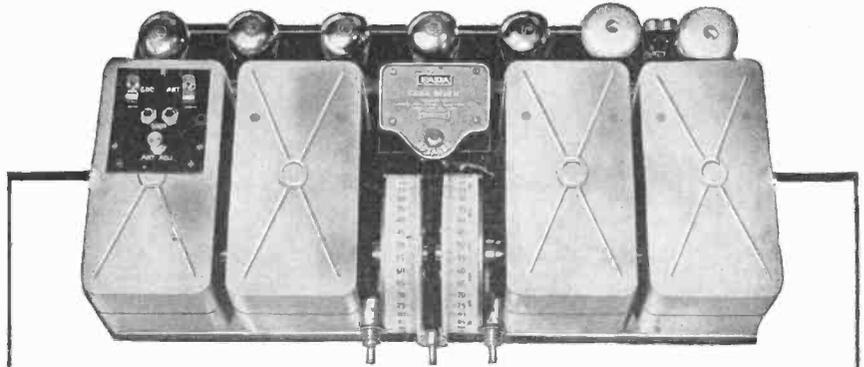
The superiority of Aluminum is recognized by Hammarlund in the design of the "Hi-Q" receiver (above). Two special Hammarlund Box Shields made of Alcoa Aluminum Sheet are used.

Aluminum Company of America's standard box shields, designed especially for amateur sets, are made of heavy Alcoa Aluminum with satin-dip finish, size 5 in. x 9 in. x 6 in. high. They are easily adapted to smaller sizes. They require no soldering. They embody the ideal combination of high electrical efficiency, mechanical strength, lightness, fine appearance and long life.

There's profitable business for Radio Dealers in Aluminum Box Shields. They are specified in many existing circuits and new circuits about to be released. Get your share of this business. Stock Aluminum Box Shields. Send for your copy of the new edition of "Aluminum for Radio." It is free.

**ALUMINUM COMPANY OF AMERICA**

2462 Oliver Bldg. Pittsburgh, Pa.



F. A. D. Andrea, Inc., uses Alcoa Aluminum for Shielding and other parts of "Fada" receiving sets

## Expect Better Results When You See This Metal in Radio

**W**HEN your customers look at radioreceivers using aluminum shielding or condenser blades; aluminum castings, front panels, chasses or sub-panels, they know that the manufacturer has chosen the *one* metal that most efficiently meets *all* the widely differing conditions encountered in radio design.

Such famous makers as Atwater Kent, Crosley, Fada, Freed-Eisemann, Grebe, Howard, R-C-A, Stewart-Warner, Stromberg-Carlson, Zenith and a host of others employ parts of

Alcoa Aluminum so that the purchasers of their receivers may enjoy the *best of radio reception*.

These makers recognize the superiority of Alcoa Aluminum.

MR. L. M. CLEMENT  
Chief Engineer of  
F. A. D. Andrea, Inc.,  
commenting on shielding says, "In a radio receiver aluminum, because of its electrical conductivity, makes a more efficient shield than any other of equal weight. The material can be easily drawn into the desired shape and its finish is permanent and pleasing to the eye."

They appreciate its ideal combination of high electrical conductivity, lightness, strength and beauty. In increasing numbers people are looking for Aluminum in the

sets they buy—to be sure of the *best* results that the *best* radio engineers have yet achieved. To show "Aluminum-equipped" sets will make selling easier for you.

**ALUMINUM COMPANY OF AMERICA**

2462 Oliver Building

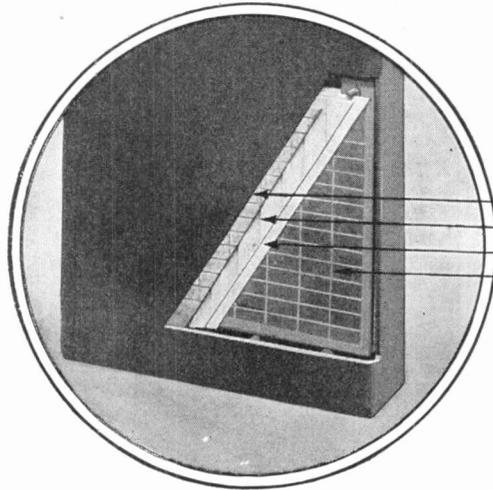
Pittsburgh, Pa.

# ALUMINUM

*The mark of Quality in Radio*

# A Message to the dealer who says:

“I want an ‘A’ Power Unit that has proved  
its reliability in modern radio service!”



1. Kathanode Neg. Plate
2. Specially treated ribbed wood separator
3. Woven glass mat retainer.
4. Special Kathanode Pos. Plate of high capacity and long life.

**T**HE Gould Kathanode Unipower is fundamentally different from any other automatic trickle charging “A” power device in the market. And in that difference lies the secret of a new record for reliability—long life—freedom from trouble.

Practically all of “A” power grief comes from one cause—rapid disintegration of the plates in the battery element of the unit. This weakness is definitely eliminated by Gould Kathanode construction. That is why the new Gould Kathanode Unipower stays on the job day in day out, beyond all previous expectations.

*Out of the first 4000 Gould Kathanode Uni-*

#### KATHANODE CONSTRUCTION THE SECRET OF LONG BATTERY LIFE

*Note how positive plates are enclosed between porous protective retainer walls of woven glass. This is the secret of remarkable durability and long life. First developed for Gould submarine batteries this new protected plate construction has proved equally valuable in radio and other constant trickle charge service.*

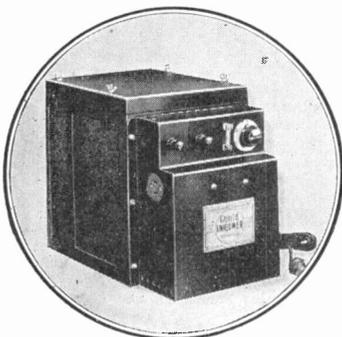
*powers in use, only 4 have ever required service. And these 4 were due to minor mechanical defects—not one battery failure.*

This remarkable record is due to Gould Kathanode battery construction. Patented glass retainer mats protect the

plates against the destructive effect of trickle charge operation.

Your nearest Gould jobber will gladly show you the new Unipower—at no cost and without obligation. If you are not satisfied with ordinary “A” power devices, write today for full information and descriptive literature.

Gould Storage Battery Co., Inc., Depew, N. Y.



#### The new Gould KATHANODE

*Over a quarter century of experience lies behind Gould Batteries.*

# Unipower

**IMPORTANT NOTE:** *Authorized Gould Unipower Service Stations located at strategic points are now equipped to repair old type Gould Unipowers with the new Kathanode elements at special reduced prices. Full details on request.*



ROLA TABLE CABINET, Model 20... \$35

## Rola Table Cabinet

**R**OLA has built a new and finer loudspeaker with a truly remarkable performance... a speaker specially engineered to handle the greater power and tone-range of the new socket-power sets.

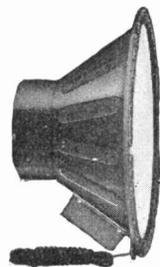
This new Rola speaker reproduces all musical tones, from the lowest to the highest, at full volume without trace of rattle or blasting... even when using "210" type power tubes with maximum plate voltage.

This instrument may be installed with any radio set with complete assurance of perfect and permanent satisfaction to your customer.

*Write for the name of  
the nearest Rola jobber*

### THE · ROLA · COMPANY

612 North Michigan Avenue, Chicago, Illinois  
Forty-fifth & Hollis Streets, Oakland, California



### Rola Reproducer

**Manufacturers:** The new Rola Cone Reproducer Unit can be obtained for installation in your cabinets... Write or wire for samples and particulars.

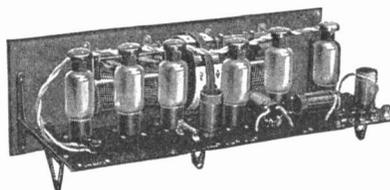
## Quality at a Sane Price

# PREMIER

"6-in-Line"

## Radio Chassis

AC



AC

## 100% Electric—No Batteries

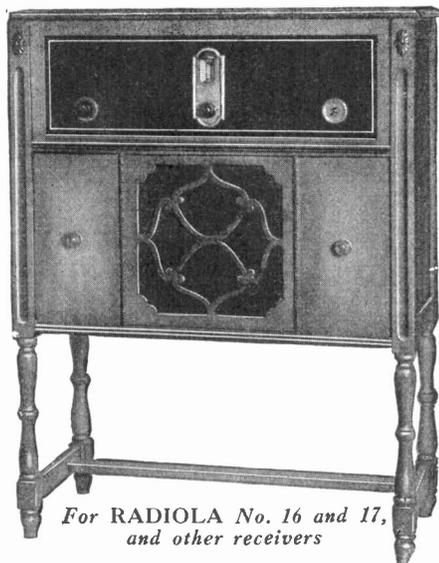
Radio distributors and merchandisers who may be interested in purchasing quality chassis or complete receiving sets under our or their own private brand, owe it to themselves to investigate what we have to offer, as our quality at the price is proving very interesting. We will be pleased to receive your inquiries.

### PREMIER ELECTRIC COMPANY

Dept. 824, 3800 Ravenswood Ave., Chicago, Ill.

*Established in 1905—Radio Since 1920*

## CORBETT Radio Cabinets



*For RADIOLA No. 16 and 17,  
and other receivers*

Model 40 as illustrated **\$40.00**  
Model 45 as illustrated including desk  
drop front over set compartment **\$46.00**  
*Offered in select walnut or quartered mahogany*

**C**ORBETT CABINETS ARE SPECIFIED for Hammarlund Roberts HiQ-6, LC-28, Ultradyne and other popular circuits.

SPECIAL WALNUT CONSOLES for the New Bosch A.C. MODEL 126 AA CHASSIS \$35.00 to \$60.00. Mahogany tables for Stromberg-Carlson Treasure Chests \$28.00 to \$35.00.

**WRITE** for DISCOUNTS and ILLUSTRATED FOLDERS showing complete line of Furniture for all popular receivers and circuits.

**CORBETT CABINET MFG. COMPANY**

*St. Marys, Penna.*

# Millions of battery-operated sets need General Electric Chargers

2-AMP TUNGAR

\$14<sup>00</sup>

\$24<sup>00</sup>

5-AMP TUNGAR

TRICKLE TUNGAR

\$10<sup>00</sup>

**NEW LOW PRICES (East of Rockies)**

The market for General Electric Chargers [called Tungars] is limited only by the number of battery-operated sets in use. Since this figure is well in the millions, the market for this profitable product is still large.

Show your prospect how easy it is to use Tungar. How he can have fully charged batteries always. No fuss or bother at all. It's easy and convenient.

Tungars are real profit builders. Once sold they stay sold. Every one you sell usually sells others for you.



*Tungar—a registered trademark—is found only on the genuine. Look for it on the name plate.*

# GENERAL ELECTRIC

MERCHANDISE DEPARTMENT GENERAL ELECTRIC COMPANY BRIDGEPORT, CONNECTICUT

# Announcing the New Shielded Grid



LIST PRICE



\$6.50



## RF-22

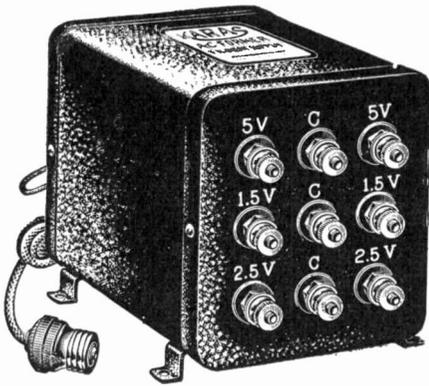
The "CeCo" RF-22 is of the four element shielded grid type and can be used to advantage only in special circuits or equipment designed for its use. Its high amplification constant and practically negligible control grid to plate capacity make this type of tube very efficient when used properly. The RF-22 is primarily designed to be used as a radio frequency amplifier and as such is capable of a voltage amplification of from 30 to 60 per stage, dependent upon circuit design. It may also be used as an audio frequency amplifier where resistance coupling is employed. One of the several uses of the RF-22 is that of a "Space Charge Grid" tube.

Write for Particulars and Prices

C. E. Mfg. Co., Inc., Providence, R. I., U. S. A.

*Largest plant in the World devoted exclusively to making of Radio Tubes*

### CHECK these FEATURES



1. No Separate Center Tap Device Necessary
2. "B" Eliminator Plug-in
3. Wire to Panel Switch
4. Absolutely Correct Voltage
5. Compact Size.

—and you'll choose the

**KARAS A-C-FORMER  
to CONVERT to A-C!**

**\$8.75**

LIST PRICE

TYPE 12

Supplies up to 8-226, 2-227, and 2-171 tubes

CHECK these features—note the amazingly low price made possible by volume orders—and you will choose the KARAS A-C-FORMER to convert your customer's battery sets—and your own—to A-C tube operation! Operates in conjunction with Carter, Eby and other makes of cable harness for 4, 5, 6 and 7 tube sets. No re-wiring necessary.

Write for Complete Details to

**KARAS ELECTRIC CO.** 4044-C N. Rockwell St. CHICAGO

### More Cabinets for Popular Radiola Line



No. 937.

for  
Radiola 17  
with  
Radiola  
100A  
Speaker  
Built In

Beautiful Mahogany Cabinet

**RADIOLA DEALERS**  
Write for Catalogue of complete Line of Radiola Furniture

**Watson Town Table & Furniture Co.**  
Watson Town, Pa.  
Successful Furniture Manufacturers Since 1893



## Cell-Pocket Construction—the Secret of Ray-O-Vac's Longer Life

**YOU** would not think of displaying your "B" batteries on top of a hot radiator!

Here is the reason. Heat increases chemical action in the battery cells. It wastes electrical energy, shortens the battery's life.

Now we are coming to the secret of the longer life for which Ray-O-Vac "B" Batteries are so widely known. It is the absence of heat in Ray-O-Vac cell assembly.

Ray-O-Vac "B" Batteries have a pitchless top. The ordinary "B" battery, on the other hand, is encased in pitch—solid pitch.

In manufacture, that pitch is poured—a seething, molten mass—so in-

tensely hot it takes hours to cool! Unavoidably, therefore, it steals a share of the battery's useful life.

Recognizing this, Ray-O-Vac developed an entirely new and vastly superior type of construction completely replacing the old-type pitch covering. It is the patented Ray-O-Vac Cell-Pocket construction—a separate insulated pocket for every cell!

Longer life, lighter weight and better all-around performance result from this sensational Ray-O-Vac advancement.

This remarkable Ray-O-Vac feature is being dominantly advertised, in colors, in *The Saturday Evening Post* and *Country Gentleman*, as well as in leading newspapers.

"B" batteries represent the most dependable, fastest-turning "bread-and-butter" merchandise in the radio dealer's entire stock.

You can safeguard this valuable business and enjoy the maximum in battery turnover and profits by selling Ray-O-Vacs. Order from your jobber.

**FRENCH BATTERY COMPANY**  
Madison, Wisconsin

Branches:

Minneapolis, Kansas City, Atlanta,  
Dallas, Chicago, New York, Detroit,  
Pittsburgh, Denver, Boston, Los Angeles

Also makers of Ray-O-Vac "A" and "C" Radio Batteries, Ray-O-Vac Flashlights and Batteries, Ray-O-Vac Telephone Batteries and Ray-O-Vac Ignition Batteries

RADIO IS BETTER WITH BATTERY POWER

WE TAKE PLEASURE IN  
ANNOUNCING THAT  
**FRANK V. GOODMAN**  
HAS JOINED OUR COMPANY AS  
**GENERAL SALES MANAGER**  
**RADIO DIVISION**

For many years he has been associated with the Sonora Phonograph Co. as General Sales Manager and Director and has established a reputation for sound and well-organized merchandising methods.

We feel sure that this announcement will not only be welcome news to his friends in the industry but also an indication of our intentions to still further strengthen our mutually profitable relationship with the thousands of successful dealers already associated with Bosch Quality Radio Products.

**AMERICAN BOSCH MAGNETO CORPORATION, SPRINGFIELD, MASS.**

Branches: New York Chicago Detroit San Francisco



**FOUR GREAT ELECTRIC SETS**

- Senior Electric
- Senior De Luxe
- Junior "Seven," Outside Pack
- Junior "Seven" Compact

Write for franchise and full particulars to—

**THE LANGBEIN-KAUFMAN RADIO CO., Dept. M.**  
62 Franklin St., New Haven, Conn.

**Radio Cabinets by UDELL**



A beautiful new 32-page Catalog illustrating and describing the greatest line of Radio Cabinets in the country is ready.

Write for your copy today.

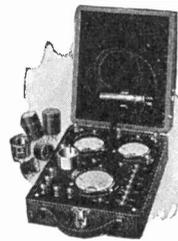
**THE UDELL WORKS**  
28th St. at Barnes Ave.  
Indianapolis



**A. C. and D. C.  
Radio Set Analyzer**

The many new service problems which have developed with the increasing use of A.C. operated radio sets can be solved by use of a Jewell A.C. and D.C. Radio Set Analyzer.

This service instrument has been available for several months and is becoming increasingly more popular with service men because of its ease of operation. It will make all A.C. and D.C. tests required by a radio set and is complete in every way. Write for descriptive circular No. 1147

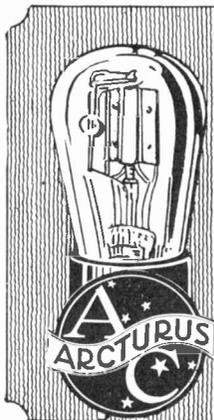


Pattern No. 137

**Jewell Electrical Instrument Co.**

1650 Walnut St., Chicago

"28 Years Making Good Instruments"



**ARCTURUS**

Without Adaptors!

**ARCTURUS  
A-C TUBES**

—amplifier, detector,  
high mu and power types  
With special and universal  
A-C CABLES

**ARCTURUS RADIO CO.**  
255 Sherman Ave.,  
Newark, N. J.

**A-C TUBES**

**Tower  
Adventurer  
RADIO CONE SPEAKER**



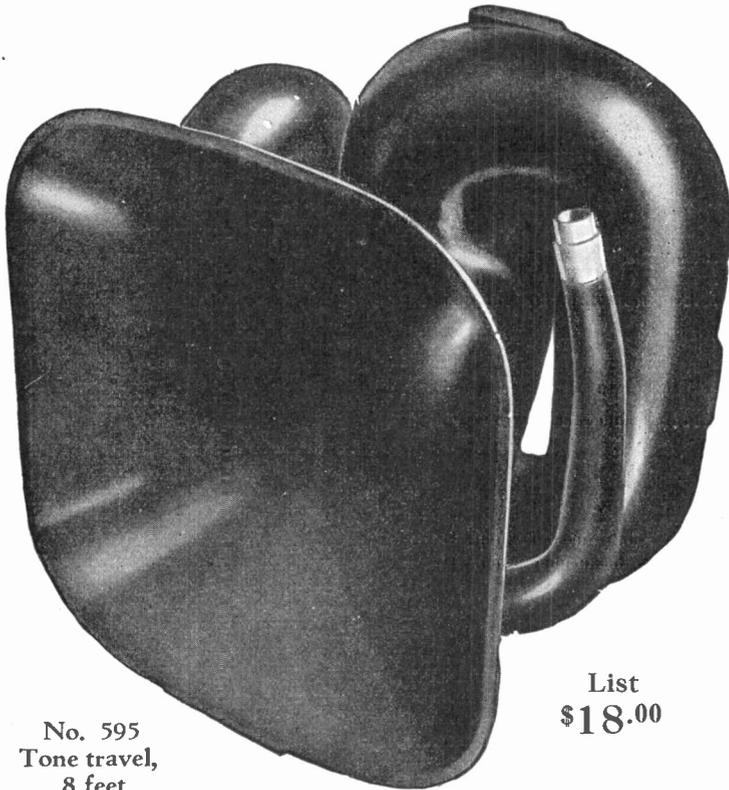
East  
**\$11.95**  
West 12.95

**Unlike all others**

Its beauty of design is known. Its quality of reproduction is supreme. Such a value at such a price has never been equalled before!

**TOWER MFG. CORPORATION**  
122 Brookline Ave.,  
Boston, Mass.

# TONE CHAMBERS



No. 595  
Tone travel,  
8 feet

List  
\$18.00

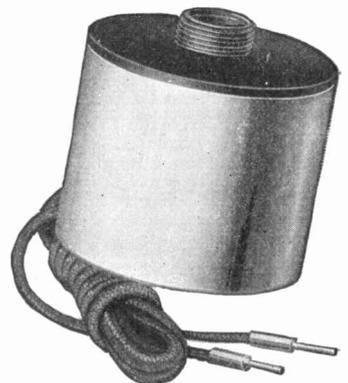
by  
**Molded Wood**  
Money Back Guarantee

**TRY THEM!**

If these Tone Chambers and *Fidelity Units* fail to furnish the best radio reproduction you have ever heard—return them within ten days.

Money refunded with shipping charges paid both ways by us.

*Unqualified  
Money-Back  
Guarantee*



List \$7.00

Fidelity Super Unit

Guaranteed to stand 250 volts

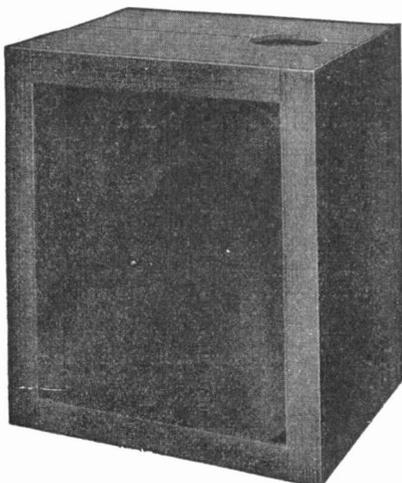
**Made of All Wood—Reproduction Unparalleled**

A Graceful, Compact, Non-Vibrating, Molded Wood Tone Chamber, sweet and mellow as a violin, scientifically constructed to reproduce naturally all notes, high and low, without distortion or over-tone—this is our proud contribution to radio enjoyment.

OVER ALL DIMENSIONS		
No. 595		No. 570
21 1/4"	High	15"
18"	Wide	12"
15" or 13"	Deep	12"

**AS A DEMONSTRATOR**

*Will Sell More Sets and Radio  
Accessories Than a Dozen  
Salesmen!*

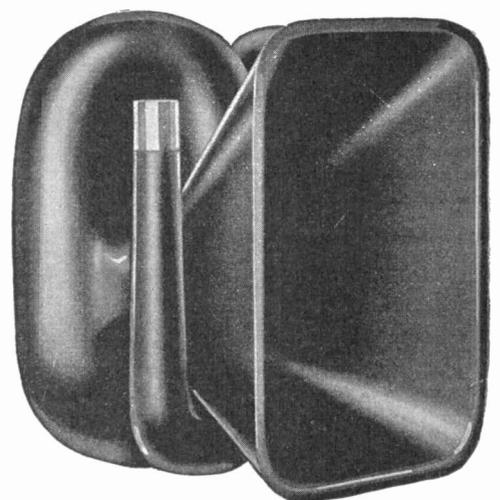


We save you cost and trouble of mounting. Both of these Tone Chambers come to you already mounted in this box. Just shove it into the cabinet, block and it is ready to ship. Takes any standard size unit.

We are prepared to serve radio set and radio furniture manufacturers in supplying tone chambers. No order is too large for our new, modern manufacturing plant to handle and no order is too small that it will not receive prompt attention.

Radio wholesalers and radio retailers all over the country are finding Molded Wood tone chambers a most profitable line of accessories.

*Write for complete details and our specifications.*



No. 570—Tone travel, 6 feet

List \$13.00

**MOLDED WOOD PRODUCTS, Inc.**

219 West Chicago Avenue



CHICAGO, ILLINOIS

# SEARCHLIGHT SECTION

## SURPLUS STOCKS—BUSINESS OPPORTUNITIES

**UNDISPLAYED—RATE PER WORD:**  
*Positions Wanted*, 6 cents a word, minimum \$1.25 an insertion, payable in advance.  
*Positions Vacant* and all other classifications, 10 cents a word, minimum charge \$2.00.  
*Proposals*, 40 cents a line an insertion.

**INFORMATION:**  
*Box Numbers* in care of any of our offices count 10 words additional in undisplayed ads.  
 Discount of 10% if one payment is made in advance for four consecutive insertions of undisplayed ads (not including proposals).

**DISPLAYED—RATE PER INCH:**  
 1 to 3 inches.....\$6.65 an inch  
 4 to 7 inches..... 6.40 an inch  
 8 to 14 inches..... 6.20 an inch  
 Rates for larger spaces, or yearly rates, on request.  
 An advertising inch is measured vertically on one column, 3 columns—30 inches—to a page.

Radio Retailing

### REPRESENTATIVE WANTED

#### Representatives

Large manufacturer of popular priced radio cabinets wants representatives selling radio dealers; models listing at \$13 and up; well made in large modern plant; quantity sellers; straight commission basis. For full details, address Drawer E-11, Boonville, New York.

### REPRESENTATIVES AVAILABLE

YOUNG man, 31 years old, married, with executive experience in merchandising major electric appliances, at present employed by a leading radio manufacturer in a sales executive capacity, is desirous of either becoming affiliated with some manufacturer who is anxious to obtain central station representation, or as manufacturers agent handling two or three affiliated lines. New York State, Ohio and Pennsylvania. References exchanged. RA-61, Radio Retailing, Tenth Ave. at 36th St., New York.

### AGENTS WANTED

NATIONALLY known manufacturer of radio aerial equipment has some unassigned territory on a commission basis. AW-54, Radio Retailing, Tenth Ave. at 36th St., New York.

### FOR SALE

WRITE for our list "Radio Stores" for sale. Federal Brokers, Inc., A. I. U. Bldg., Columbus, Ohio.

### FREE RADIO EMPLOYMENT SERVICE

Employers in any line of the Radio industry (or in allied industries) should call on our Free Radio Employment Service when additional employees are needed. Thoroughly trained, experienced men supplied anywhere in the U. S. or Canada on 48 hours' notice. No charge for service. Send post card today for our free monthly bulletin. Address National Radio Institute, Dept. R.R., Washington, D. C.

### We Have For Sale a Quantity of Genuine Brass Bound RCA Adapters No. 365135

Every dealer needs them to adapt WD11 tubes to the standard socket of his tube tester.

Fifty cents each or ten adapters for \$4.00.

Send money order or check to

#### OKAY RADIO CO.

417 11th St., N. W., Washington, D. C.

### WE NEED CROSLEY SETS

One, Two, Three, and Four Tube R.C.A. Sets

Two and Four Tube and Amplifiers, Tower Cones, Crosley Cones.

Or what have you?

#### OKAY RADIO CO.

417 11th St., N. W., Washington, D. C.

We pay cash for the Radio Receivers, Speakers, and Battery equipment you have taken in on trades.

Eastern Indiana Auto Supply Company  
 Richmond, Indiana

### NEED DISTRIBUTORS?

Advertise for them in the "Searchlight Section"

## If there is anything you want—

or something you don't want that *other* readers of this paper can supply — or use—advertise in the



Somebody is always looking for something to meet certain business needs. Some men in charge of plant operations may be in the market for good used equipment—others may have just what they want, to sell. Some may require a man of unusual quali-

fications for a particular position—that man may be another reader of this paper!

Put the Searchlight Section to work for you under any of the following classifications—to fill your business needs.

Agencies Wanted  
 Agents Wanted  
 Auction Notices  
 Buildings For Sale  
 Business Opportunities  
 Civil Service Opportunities  
 Contracts To Be Let

Contracts Wanted  
 Educational Courses  
 Employment Agencies  
 Exchanges  
 For Rent Items  
 Franchises  
 Industrial Sites

Miscellaneous Wants  
 New Industries Wanted  
 Partners Wanted  
 Patents For Sale  
 Patent Attorneys  
 Plants For Sale  
 Positions Vacant

Positions Wanted  
 Property For Sale  
 Receivers' Sales  
 Representatives Wanted  
 Salesmen Wanted  
 Work Wanted  
 Etc., Etc., Etc.

# DEALERS—here's an opportunity to make a real profit on Power Units!

LOOK AT THESE BARGAIN PRICES!



## UNI-RECTRON POWER AMPLIFIER



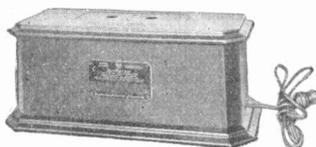
(Model AP-935)

As the Uni-Rectron stands it is a super power amplifier, which can be used in connection with any radio set and loud speaker. Binding posts are provided for input to the Uni-Rectron and output to a loud speaker. Requires no batteries for its operation. It obtains its power from the 110 volt, 60 cycle, alternating current house lighting circuit. Radiotron UX-210 and Rectron UX-216-B or 281 Tube are used with this Amplifier. All that is necessary is to insert the plug into a wall or lamp socket and the R.C.A. Uni-Rectron, by means of the UX-216-B or UX-281 changes or rectifies the current so that the correct

voltage will be delivered to the super-power amplifier tube, UX-210. The whole unit is enclosed in a metal cabinet which is small and compact and presents a good appearance.

This super power amplifier cannot overload. From the faintest whisper to the loudest crash of sound—R.C.A. Uni-Rectron amplifies each note at its true value. High and low notes are all treated alike.

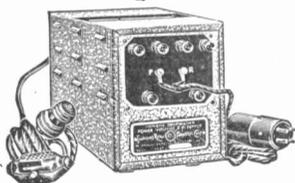
Not only is its volume and quality a revelation but it lowers the cost of set operation, for when Uni-Rectron is used the drain on the batteries which operate the receiver is greatly reduced.



List Price \$88.50 Each  
(without tubes)

**Special at \$14.50 Ea.**

### TIMMONS Combination Power Amplifier and "B" Supply



List \$70.00  
(without tubes)

**SPECIAL AT  
\$18.50 ea.**

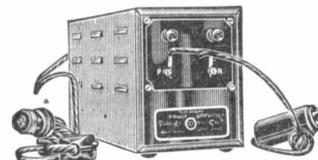
Both of these high quality compact units use a UX-216-B or 281 Tube for rectifying and a UX-210 super power audio tube as an amplifier which gives distortionless and true natural reception with wonderful tone quality and volume.

Both instruments are identical in their performance as super power amplifiers. The combination however is also

### TIMMONS Power Amplifier

List \$45.00  
(without tubes)

**SPECIAL AT  
\$11.50 ea.**



a complete "B" Eliminator furnishing all the "B" current required by the regular tubes of the set. No adjustments required and no output transformer or similar auxiliary equipment needed with either unit.

For use with alternating current 105-120 volts, 50-60 cycles. These units have been approved by Popular Radio and Popular Science Laboratories.



### TIMMONS "B" ELIMINATOR (latest model, 4 posts) Complete with 216-A tube

Here is a high quality inexpensive "B" battery eliminator which delivers absolutely smooth current with plenty of pep and punch behind it.

Operates on any set up to seven tubes including a power tube (112 or 171). Has a tap for power



tube, also 45, 67½ and B minus taps. This unit is for use on 110 volt, 60 cycle, A.C. line.

List \$28.50 each

**SPECIAL AT \$11.85 ea.**  
(including tube)

All units offered in this advertisement are BRAND NEW, packed in original factory sealed carton and fully guaranteed!  
TERMS: 20% cash with order, balance C. O. D. f.o.b., New York.

**AMERICAN SALES CO., 19-21 Warren St., NEW YORK CITY**

TURN THAT SURPLUS  
STOCK INTO CASH  
Advertise it in the  
"Searchlight Section"

**WE PAY CASH**  
for your  
**SURPLUS RADIO STOCKS**  
What have you for sale?  
AMERICAN SALES CO.  
21 Warren Street, New York City.  
Established 1919

**Dealers !!!**  
Send for our catalog of radio bargains.  
Every item a real money-maker  
AMERICAN SALES CO.  
19-21 Warren St., New York City

# TISIT

A Liquid Solder  
Every Radio Owner Wants



*No Heat Required—  
No Soldering Iron Needed*

TISIT is a liquid solder, heat-proof and acid-proof. It is applied with a stick, without heat. It is easy to use and always ready.

TISIT is invaluable for soldering radio connections, soldering aerials—in fact any place a solder can be used on a radio where leverage is not employed.

TISIT has scores of other uses in the home. It is the only known solder for aluminum. Can be used for repairing pots, pans, percolators or other kitchen utensils, steam pipes, radiators—in fact any place a solder can be used.

TISIT is establishing sales records in practically every store where it is displayed. It is backed by national advertising in leading publications, which means you can sell it and make money on it.

**\$4.00 per dozen on display card**  
Retails for 50c each—  
**\$2.00 per dozen profit**

Get your share of the profits that are being made from TISIT by ordering your dozen today from your jobber—or write us direct for it, giving your jobber's name.

**LETELLIER LABORATORIES, INC.**  
*Manufacturing Chemists*  
119 Main St., E., Rochester, N. Y.

# TISIT

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# Establishing Confidence With the Radio-Loving Public

The dependable performance of Sylvania radio tubes has earned an enviable reputation for them with the radio public.

The four tubes illustrated in this advertisement are the types required for most AC receivers, including a rectifier, AC detector and amplifiers and power tube. Sylvania also makes the complete line of DC tubes.

This dependable performance, backed by a policy of full protection against price decline and no price cutting, makes Sylvania the most satisfactory and profitable tube you can handle.

Your jobber can show you a complete line.

Tune in on the Sylvania Foresters through Stations WJZ, WBZ, WBZA, KDKA and KYW every Wednesday evening at 8:30.

**Sylvania**  
RADIO TUBES



Sylvania Tubes are attractively packaged in a colorful woodsy carton depicting the congenial atmosphere in which they are made.

SYLVANIA PRODUCTS CO.

EMPORIUM, PA.

**A Radiotron  
for every purpose**

- RADIOTRON UX-201-A**  
Detector Amplifier
- RADIOTRON UV-199**  
Detector Amplifier
- RADIOTRON UX-199**  
Detector Amplifier
- RADIOTRON WD-11**  
Detector Amplifier
- RADIOTRON WX-12**  
Detector Amplifier
- RADIOTRON UX-200-A**  
Detector Only
- RADIOTRON UX-120**  
Power Amplifier Last  
Audio Stage Only
- RADIOTRON UX-222**  
Screen Grid Radio  
Frequency Amplifier
- RADIOTRON UX-112-A**  
Power Amplifier
- RADIOTRON UX-171-A**  
Power Amplifier Last  
Audio Stage Only
- RADIOTRON UX-210**  
Power Amplifier Oscillator
- RADIOTRON UX-240**  
Detector Amplifier for  
Resistance-coupled  
Amplification
- RADIOTRON UX-250**  
Power Amplifier Oscillator
- RADIOTRON UX-226**  
A.C. Filament
- RADIOTRON UY-227**  
A.C. Heater
- RADIOTRON UX-280**  
Full-Wave Rectifier
- RADIOTRON UX-281**  
Half-Wave Rectifier
- RADIOTRON UX-874**  
Voltage Regulator Tube
- RADIOTRON UV-876**  
Ballast Tube
- RADIOTRON UV-888**  
Ballast Tube

The standard by  
which other vacuum  
tubes are rated



A Radiotron  
for every purpose

RADIOTRON UX-201-A  
Detector Amplifier

RADIOTRON UV-199  
Detector Amplifier

RADIOTRON UX-199  
Detector Amplifier

RADIOTRON WD-11  
Detector Amplifier

RADIOTRON WX-12  
Detector Amplifier

RADIOTRON UX-200-A  
Detector Only

RADIOTRON UX-120  
Power Amplifier Last  
Audio Stage Only

RADIOTRON UX-222  
Screen Grid Radio  
Frequency Amplifier

RADIOTRON UX-112-A  
Power Amplifier

RADIOTRON UX-171-A  
Power Amplifier Last  
Audio Stage Only

RADIOTRON UX-210  
Power Amplifier Oscillator

RADIOTRON UX-240  
Detector Amplifier for  
Resistance-coupled  
Amplification

RADIOTRON UX-250  
Power Amplifier Oscillator

RADIOTRON UX-226  
A.C. Filament

RADIOTRON UY-227  
A.C. Heater

RADIOTRON UX-280  
Full-Wave Rectifier

RADIOTRON UX-281  
Half-Wave Rectifier

RADIOTRON UX-874  
Voltage Regulator Tube

RADIOTRON UV-876  
Ballast Tube

RADIOTRON UV-888  
Ballast Tube

The standard by  
which other vacuum  
tubes are rated



RCA Radiotrons have been imitated in appearance, shape and size—in everything but the main thing—dependable performance.

Every Radiotron is made and tested by the engineers of RCA, Westinghouse and General Electric, in the same great laboratories where the principles of modern broadcasting were developed. You can rely on Radiotrons. Never use new tubes with old ones that have been in use a year or more. See that your set is completely equipped with RCA Radiotrons once a year at least.

**RCA Radiotron**  
MADE BY THE MAKERS OF THE RADIOLA

RADIO CORPORATION OF AMERICA NEW YORK CHICAGO SAN FRANCISCO

**RCA HOUR**

Every Saturday  
Night

Through the following  
network program with  
the following stations:

8:00 P.M.  
Leave Time

WFL  
WFL  
WFL  
WFL  
WFL  
WFL

7:30 P.M.  
Come Time

KYW  
KBY  
WJL  
WJL  
WJL  
WJL

1:00 P.M.  
Play Time

KPD  
KPD  
KPD  
KPD  
KPD  
KPD

A larger and more impressive national advertising campaign than that back of any other vacuum tube is telling your customers about the quality of RCA Radiotrons. Forceful counter and window displays, folders, etc., help you get your share of sales.



Why experiment with your profits when RCA Radiotrons are recognized as standard by leading manufacturers of quality receiving sets? Millions of dollars and the patient skill of RCA radio engineers are back of their development and perfection. There is an RCA Radiotron for each socket in every set—tested tubes that will give finer and surer reception. It will pay you to carry the complete line.

RADIO CORPORATION OF AMERICA

NEW YORK

CHICAGO

SAN FRANCISCO

**RCA Radiotron**

MADE BY THE MAKERS OF THE RADIOLA