

# The RADIO DEALER

Vol. 2 No. 6

MARCH, 1923

One Dollar The Year

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## RADISCO *means service*

“Service” unquestionably is a very much overworked word. It is the common thing nowadays to rave a good deal about it. Most firms do not even know the definition of the word while others know very well what it means but only think they give it.

There are many institutions, however, really rendering a service. They do all that the customer expects them to do—and a whole lot more. Such is the Radio Distributing Company.

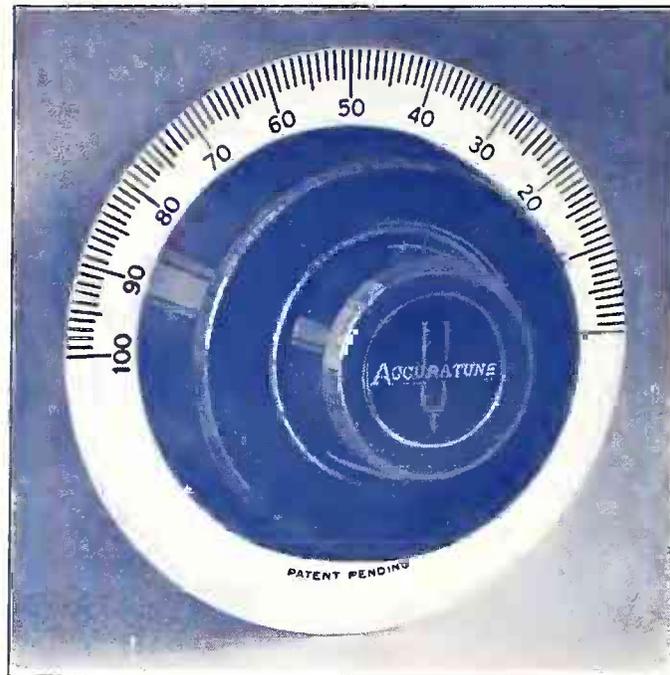
Service is a hard thing to give. It cannot be copyrighted and is the most difficult thing in the world to imitate.

*We carry ample  
stocks of*

ACME  
BRANDES  
MURDOCK  
CLAPP-EASTHAM  
WESTERN ELECTRIC  
RADIO CORPORATION

*and many  
other makes*

**RADIO DISTRIBUTING COMPANY**  
8 West Park Street Newark, N. J.  
A. H. CORWIN, General Manager



# *ACCURATUNE* MICROMETER DIAL

PATENT PENDING

Entirely self-contained, absolutely automatic in action, and above all "fool-proof"—

Its unique micrometer mechanism provides for an accuracy of adjustment eight to ten times as great as is obtainable with any other so-called "vernier" device or attachment, resulting in—

## ABSOLUTE TUNING PRECISION

Quite as appealing in its rich, distinctive appearance and evident quality as in its mechanical perfection, the Accuratune Micrometer Dial—

## SELLS ITSELF AT SIGHT

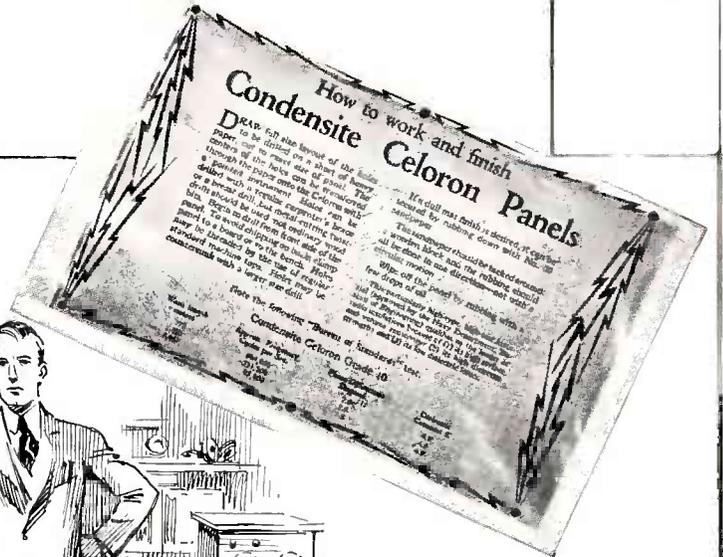
Order immediately through your regular channels one of our attractive mounted display samples, (the cost is nominal). Place it on your counter—let the interest it arouses determine your stock order.



"THE SEAL OF MERIT"



845 BROAD STREET, NEWARK, N. J.



## Why he did not buy

**T**HE customer wanted a radio panel immediately. But the dealer could not deliver it because he had to have it cut from sheet stock. The customer did not want to wait, and walked out. How many sales like that do you lose?

You can keep radio panel sales in your store by stocking Celoron Radio Panels. They come in standard sizes selected to meet the requirements of practically every set-builder. Each panel is already cut, trimmed, and wrapped in glassine paper. Each is a separate package, easily stocked and merchandised.

The customer asks for a certain size. You select a Celoron panel and pass it across the counter. This instantaneous service is something your customers will appreciate. They will be more likely to

come to you for the other articles they need to complete their sets.

Celoron has high insulating resistance, high dielectric strength, and low dielectric losses. It is easily worked, machined, drilled and tapped, and will engrave evenly without feathering.

After thorough investigation of dealer requirements and those of the set-builder these sizes have been selected:

- |                    |                     |
|--------------------|---------------------|
| 1. — 6 x 7 x 1/8   | 5. — 9 x 14 x 3-16  |
| 2. — 7 x 9 x 1/8   | 6. — 7 x 21 x 3-16  |
| 3. — 7 x 12 x 1/8  | 7. — 12 x 14 x 3-16 |
| 4. — 7 x 18 x 3-16 | *8. — 7 x 46 x 3-16 |

\*This strip for cutting special sizes. Not wrapped in glassine.

Let us have your order today, specifying by number the sizes you want.

## Diamond State Fibre Company

BRIDGEPORT (near Philadelphia) PENNSYLVANIA

BRANCH FACTORIES AND WAREHOUSES

BOSTON CHICAGO SAN FRANCISCO

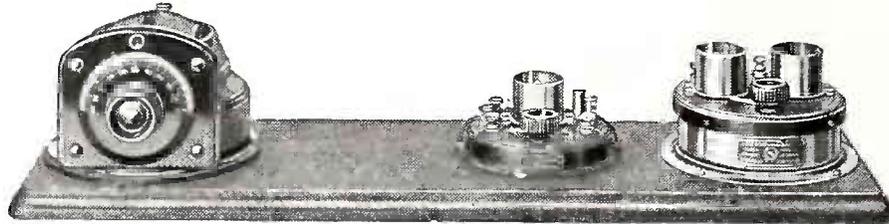
Offices in Principal Cities

In Canada: Diamond State Fibre Company of Canada, Limited, 245 Carlaw Avenue, Toronto

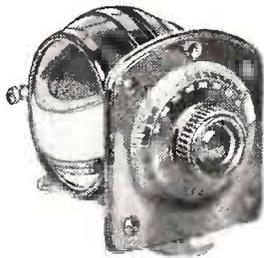
# CONDENSITE CELORON STANDARD RADIO PANEL

# ATWATER KENT

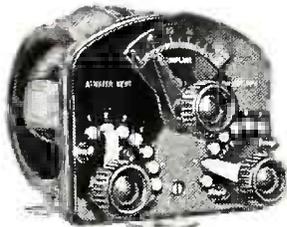
Radio Receiving Sets and Parts



Complete Set consisting of Coupled Circuit Tuner, Detector Unit and 2-stage Amplifier. Other sets shown in circular.



Mounted Variometer



Mounted Variocoupler



Type 11 Tuner

ATWATER KENT Receiving Sets and Parts are built with the most particular care. From the moulding of the condensite forms and winding of the various coils, through the assembling and finishing of the units to the final mounting and wiring, every step is subjected to the most rigid inspection. It must be "just so." This is the reason why ATWATER KENT radio equipment has that "different" look that makes it instantly noticeable in any surrounding.

*Atwater Kent products sell on appearance.*



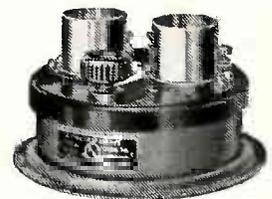
Standard Tube Detector Unit



1/2-Volt Tube Detector Unit



1-stage Amplifier



Detector 1-stage Amplifier  
A similar unit is furnished  
in a 2-stage Amplifier

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, U. S. A.

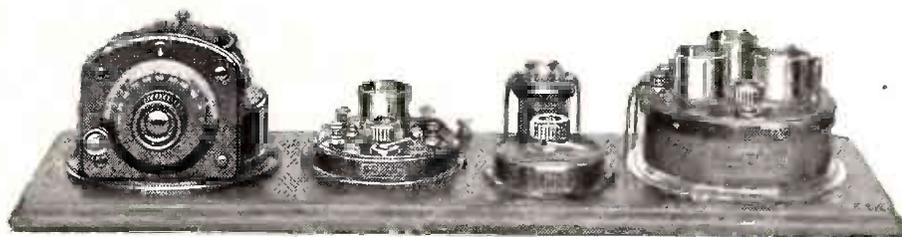
Radio Department

4941 STENTON AVE.

Correspondence Solicited

# ATWATER KENT

Radio Receiving Sets and Parts



Complete Set consisting of Type 11 Tuner, one stage of Radio Frequency Amplification, and Detector 2-stage Audio Frequency Amplifier.

**B**UT appearance is not the only feature that is watched. Even though the factory is pushed to its utmost capacity by the extraordinary demand for ATWATER KENT sets and parts, every unit is carefully tested to make certain that its performance is right. By this means, the radio fan is sure of getting a part or set that is not only strikingly handsome in appearance, but works perfectly, and gives the utmost satisfaction.

*They stay sold on quality of performance.*



R. F. Transformer



2 to 1 A.F. Transformer Type L



Standard Vac. Tube Unit



Detector 2-stage Amplifier



Table Potentiometer



9 to 1 A.F. Transformer



1 1/2-Volt Tube Socket

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, U. S. A.  
 Radio Department 4941 STENTON AVE. Correspondence Solicited



# Sell Him a VOLT- METER!

## Why?



**B**ECAUSE he NEEDS it. He MUST know his exact voltage to tune satisfactorily—to duplicate results quickly—to obtain full life and service from his tubes.

Because YOU will be rendering him a genuine SERVICE that will be appreciated—when you show him the real value of a Weston Voltmeter.

The FUTURE of Radio will be built on service. Are YOU going to build YOUR business on this basis—and at the same time take advantage of this wonderful profit-making opportunity? Every tube user is a prospect. Start talking Weston Voltmeters today.

Write for Booklet J, illustrating and describing Weston indicating instruments for Radio use. Prompt shipments made from stock.

## Weston Electrical Instrument Co.

178 Weston Ave. Newark, N. J.

Electrical Indicating Instrument  
Authorities Since 1880



# THE RADIO DEALER

## The Radio Trade Journal

For The Radio Retailer

CONTENTS MARCH, 1923

### SPECIAL ARTICLES

Bright Future for the Dealer Assured.....	By A. H. Corwin	18
Confidence and Self-Respect Essential to Radio Salesmen.....	By Walter French	47
Dangers of Monopoly in Germany.....	By H. Jaeger	32
Dealers Disclose Unfair Tactics of Mail Order Competition, By W. L. Harrison and R. A. Wheeler		21
Do Cut Prices Make Radio More Popular?.....	By Harold M. Schwab	20
Hook-Ups as an Aid to Sales Promotion.....	By Sigmund Newman	17
Letters Get Trade.....	By Bernard Freedman	52
Making Your Store the Radio Centre.....	By R. D. Ridley	24
Present Trade Marks Do Not Protect.....	By Chauncey P. Carter	16
Schools Help Sales.....	By William Coleman	69
Tuner in Tube.....	By Martin Gridley	50
Two Kinds of Stores.....	By Jarrold Thomlinson	55
Three Contests Indicate Dealer Interest.....	By L. N. Allen	19
The First Year.....	By the Publisher	39
Your Store Is Your Best Advertisement.....	By N. B. Zimmerman	15
Why Buy From The Jobber.....	By A. E. Pollock	17

### DEPARTMENTS

Book Review.....	By B. J. Farrell	58
Editorial .....		22-23
Radio Pictures of the Month.....		34
Radio Stock Markets.....	By Frank P. Stanton	54
Service Bureau.....		Back Cover
What the Manufacturers Are Doing.....		26

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Also publishers of THE RADIO DEALER WEEKLY—for Manufacturers.

**Smith & Brown, Inc.**  
**Radio Supplies**

217 MAIN ST. MADISON, OHIO

Dear Mr. Evans:

Dullness will fly out of your window on the night that your first radio programme flies in.

Millions of other folks are nightly plucking a whole evening's entertainment out of the very air they breathe - why not you?

Think what it would mean to you to sit in your easy chair, "listening in" to grand opera, to symphony concerts, to splendid programmes of vocal music - enjoying the latest jazz hits - getting the daily scores and play-by-play reports of the big athletic contests - obtaining the daily market reports, weather forecasts, and interesting news from everywhere - refreshing yourself with lectures and sermons by renowned lecturers and preachers - enjoying yourself and improving your mind in a thousand-and-one other ways.

We carry a very complete line of radio parts and apparatus. At reasonable cost, we will make it easy for you to fill your home with days and nights of magic delight, broadcasted from stations far and near.

We will gladly bring a receiving set out to your home some evening and let you see and hear for yourself.

Sincerely yours,

SMITH & BROWN, Inc.

# This set of sales-building letters free to radio dealers

## A series that will get results from any good prospect list

**Y**OU know the value of a good prospect list.

You also appreciate the need of getting action from it.

Is anything better for the purpose than a good circular letter—one which puts your particular message up in the right way to your particular kind of prospects?

The six letters, included in this free set, are exactly that kind—just the thing to send out to the many persons in your territory, who are on the verge of becoming radio enthusiasts, but who need a little push to send them over.

Each letter emphasizes that your store is the place to go to for dependable radio apparatus, reliable service and timely advice.

The whole series is written in a live, humanly-interesting manner, and is sure to get results.

The Adams-Morgan Company, manufacturers of Paragon Radio Products, believes that enterprising dealers would be glad to have a set of such thoroughly practical letters on hand at this time when the Radio season and Radio enthusiasm are at their height—the very time when a good prospect list should be systematically circularized in a live and distinctive way.

Accordingly, we have arranged to have a limited number of the sets made up to be supplied *free* to dealers, whether or not they handle Paragon Radio Products.

If you would like to get a set before the supply is exhausted, we suggest that you write us promptly on your business letterhead.

**ADAMS-MORGAN COMPANY, 12 Alvin Avenue, Upper Montclair, N. J.**

## Important Announcement

To protect our customers against inferior imitations the name of your old friend RADION (panels and parts) now is made safe by the registered trade mark RESISTON. This name stamped on panels or parts means the best in radio insulating materials.

# RESISTON RADION

## Panels and Parts

RESISTON RADION is a superior grade of hard rubber developed exclusively for Radio use.

RESISTON RADION is mechanically better than ordinary panel insulations, because it will not warp under normal conditions; it is easily worked with simple tools, cuts and drills clean without chipping, is easily engraved.

RESISTON RADION has a beautiful satin-like polish comparable to the finest finish ever put on hard woods.

RESISTON RADION excels all other insulations in the four most important characteristics required for Radio use, viz: (1) low phase angle difference, (2) low di-electric constant, (3) high resistivity, and (4) non-absorbent qualities. Tests by disinterested organizations including the New York Electrical Testing Laboratories establish these claims beyond question.

RESISTON RADION costs no more, in most cases LESS than phenolic, laminated phenolic or other insulation materials usually offered for panels.

RESISTON RADION is made in two colors, black and mahoganite. The latter resembles fine old mahogany in appearance.

RESISTON RADION is made in 18 stock sizes of panels, hence it can be used with minimum waste. Each panel packed in envelope to protect beautiful finish. Stock sizes are as follows:

6x 7 inches	7x21 inches
6x10½ "	7x28 "
6x14 "	7x48 "
6x21 "	9x14 "
7x 9 "	10x12 "
7x10 "	12x14 "
7x12 "	12x21 "
7x14 "	14x18 "
7x18 "	20x24 "

Also made into dials, knobs, sockets, antennae insulators, etc. RESISTON RADION is economically moulded to any specifications at our factories.

*Inquiries from those interested in the best insulating material are solicited.*

American Hard Rubber Company  
11 Mercer St., New York

**"The Supreme Insulation"**

# List of Advertisers

(Advertisers Indexed by Products will be found on Pages 12 and 13 of this issue)

A	
Adams-Morgan Co. ....	7
Aerovox Wireless Corp. ....	58
Ajax Radio Corp. ....	40
Allen-Bradley Co. ....	41
American Hard Rubber Co. ....	8
Amplex Instrument Labs. ....	13
Aremco Mfg. Co. ....	57
Arrow Radio Co. ....	42
Astorloid Mfg. Co., Inc. ....	42
Atwater Kent Mfg. Co. ....	4, 5
Automatic Electrical Devices Co. ....	32-33
B	
Bathgate, Walter E. ....	58
Betts & Betts. ....	51
L. S. Brach Mfg. Co. ....	64
Bremer-Tulley Radio Co. ....	50
Briggs & Stratton Co. ....	14
Bristol Co., The. ....	31
Brooklyn Metal Stamping Co. ....	51
Bruno Radio Corp. ....	60
C	
Carbon Products Co., The. ....	28
Chauncey P. Carter. ....	61
Chaslyn Co. ....	68
Clapp-Eastham Co. ....	44
Commercial Screw Machine Co. ....	64
Continental Fibre Co., The. ....	53
Copper Clad Steel Co., The. ....	48
Cozzone & Co., John A. ....	50
Crosley Mfg. Co. ....	10
Crown Radio Mfg. Corp. ....	28
D	
Darling Radio Co. ....	54a
Diamant Tool & Mfg. Co., Inc. ....	44
Dictograph Prod. Corp. ....	49
Diamond State Fibre Co. ....	3
E	
Eagle Radio Co. ....	36
Eagle Radio Mfg. Co. ....	59
Eby Mfg. Co., The H. H. ....	41
Eastern Radio Mfg. Co. ....	58
Edison, Inc., Thos. A. ....	38
Eisemann Magneto Corp.,	
Inside back cover	
Electric Service Supplies Co. ....	46
Electric Products Co. ....	44
Ell-Ess Radio Exchange. ....	42
Eshoo Cabinet Works, E. ....	48
Essex Mfg. Co. ....	54
European Radio Co. ....	57
F	
Fallgatter, Marvin B. ....	46
Federal Tel. & Tel. Co. ....	68
Fiber Products Co. ....	55
Fischer & Co., G. H. ....	40
Ford Mica Co., Inc. ....	49
Four Way Co. ....	65
Franklin Radio Mfg. Co. ....	50
French Battery & Carbon Co. ....	64
Freshman Co., Inc., Chas. ....	43
G	
General Merchandise Co. ....	52
Gibbons-Dustin Radio Mfg. Co. ....	55
Globe Radio Equip. Co. ....	66
Goetz Co., The Edw. J. ....	44
Gould Storage Battery Co. ....	44
Gregg & Co. ....	44
H	
Hafner Manufacturing Co. ....	44
Harris Laboratory, The. ....	58
Heinemann Electric Co. ....	69
Holloway Elec. Supply Co., Inc. ....	52
Hudson-Ross. ....	64-66-68
Hyman & Co., Inc., Henry. ....	58
I	
Inter-Ocean Radio Corp. ....	66
J	
Jackson, P. D. ....	44
Jaynson Lab. ....	50
K	
King Sewing Machine Co. ....	72
Kramer Radio Co. ....	44
L	
Lewis & LeRoy Radio Corp. ....	44
M	
Maclite Storage Battery Co. ....	68
Magna Instrument Co. ....	63
Magnavox Co., The. ....	25
Manufacturers Patent Co. ....	44
Marle Engineering Co. ....	32
Metro Electrical Co. ....	59
Mica Insulator Co. ....	14
Mills Radio & Elec. Co. ....	64
Mitchell-Rand Mfg. Co. ....	44
Moon Radio Corp. ....	68
M. P. M. Sales Co. ....	69
Multiple Elec. Products Co. ....	67
Mu-Rad Laboratories, Inc. ....	35
Mydar Radio Corp., The, Second cover, 71	
N	
National Vulcanized Fibre Co. ....	12
Newman & Co., S. ....	27
New York Hard Rubber Turning Co. ....	52
New York Radio Dial Co. ....	68
New York Testing Laboratories. ....	57
Novo Manufacturing Co. ....	52
O	
Oranola Radio Corp. ....	56
P	
Paramount Machine Co. ....	44
Parkin Mfg. Co. ....	47
Permanent Radio Fair. ....	45
Pittsburgh Radio & Appliance Co., Inc. ....	48
Post Electric Co. ....	57
Poster & Co. ....	56
Precision Equipment Co. ....	11
Pruden, Frederick H. ....	44
Q	
Q. T. Light Co. ....	56
Queens Radio Co., Inc. ....	42
R	
Radio Apparatus Co. (Pittsburgh) ....	48
Radio Accessories Co. ....	39
Radio Center. ....	61
Radio Courses, Inc. ....	42
Radio Detector Co. ....	54
Radio Distributing Co. Front cover	
Radio Mica Products Co. ....	65
Radio Outfitting Corporation. ....	44
Radio Products Mfg. Co. ....	63
Radio Shop of Newark, The. ....	68
Radio Stores Corp. ....	72
Radio Trade Association. ....	71
Rauland Mfg. Co. ....	53
Ross-Gould Co. ....	68
Royal Electric Laboratories. ....	56
Rusonite Products Corp. ....	62
S	
Samson Elec. Co. ....	43
Saturn Mfg. & Sales Co., Inc. ....	30
Save Sales Co. ....	39
Service Bureau. ....	Back cover
Schwab, Harold M., Inc. ....	31
Shamrock Radio Co. ....	57
Shaw, H., Insulator Co. ....	38
Sheltone Mfg. Co. ....	37-42-50-58-64
Signal Radio & Elec. Corp. ....	50
Simple A Radio Co. ....	54-B
Spee-Dee Specialty Co. ....	36
S. S. Novelty Co. ....	40
Standard Appliance Mfg. Co. ....	44
Standard Metal Mfg. Co. ....	29
Standard Mineral Co. ....	27
Standard Wireless Panel Co. ....	35
Stanton Co., Frank T. ....	48
Steinmetz Wireless Mfg. Co. ....	68
Strauss & Blum, Inc. ....	56
Stuckeman Bros., Inc. ....	52
Superior Products Mfg. Co. ....	50
T	
T. B. H. Corporation. ....	60
Tesrite Instrument Co. ....	50
T. F. Radiophone Co. ....	52
Thornton Transformer Co. ....	52
Thresher Radio Corp. ....	9
Trade Circular Addressing Co. ....	68
Triangle Electro Trading Co. ....	64
True-tone Radio Mfg. Co. ....	67
U	
Union Radio Corp. ....	40
United Mfg. & Distributing Co. ....	45
United Specialties Co., Inc. ....	58
V	
Viking Radio Co. ....	50
Virginia Radio Corp. ....	61
W	
Wald Elec. Co. ....	58
W. B. L. Radio Co. ....	48
Werner & Patch. ....	60
W. E. Supply & Service Co. ....	44
Weston Elect. Instrument Co. ....	6
Westphal Mfg. Co. ....	62
Wilcox Laboratories. ....	48
Winkler, Inc., Chas. ....	44

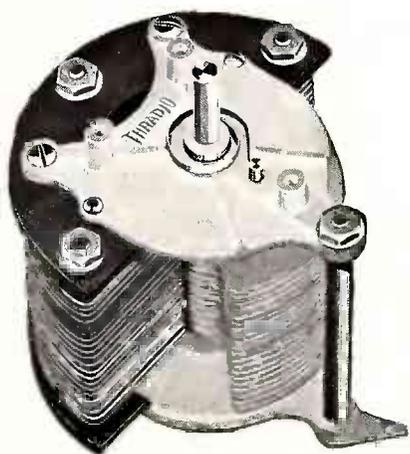
# “A Man Is Known By The Company He Keeps”

The Dealer's Standing With His Customers Depends Upon the Quality of His Merchandise.

The Buyer of Radio Parts Has Learned to Discriminate in His Selection of Dependable Materials.

A Satisfied Customer is a Booster.

THRADIO Products Designed and Built Upon Correct Electrical and Mechanical Principles Guarantee Highest Results and Dependability.

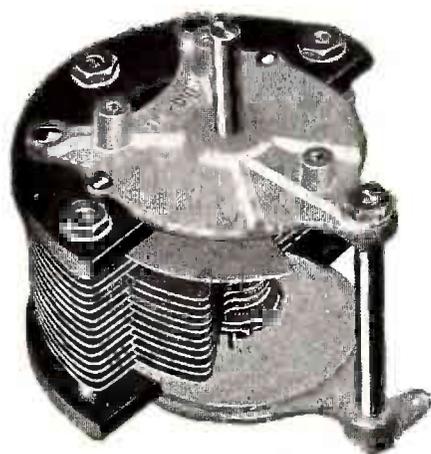


*Pat. Pend.*

VARIABLE CONDENSER. Plain.  
Arranged for panel mounting. Stationary plate assembly carried by Bakelite Washers placed out of field. Positive contact. Strut insures perfect alignment of end Bearings and Plates.  
11, 23, 43 Plates.



- HEADSETS
- HEAD BANDS
- V. T. SOCKETS
- RADIO FREQ. TRANSFORMERS
- AUDIO FREQ. TRANSFORMERS
- RHEOSTATS, PLAIN
- RHEOSTATS, VERNIER
- VAR. CONDENSERS, PLAIN
- VAR. CONDENSERS, VERNIER
- GRID CONDENSERS
- DETECTOR UNITS

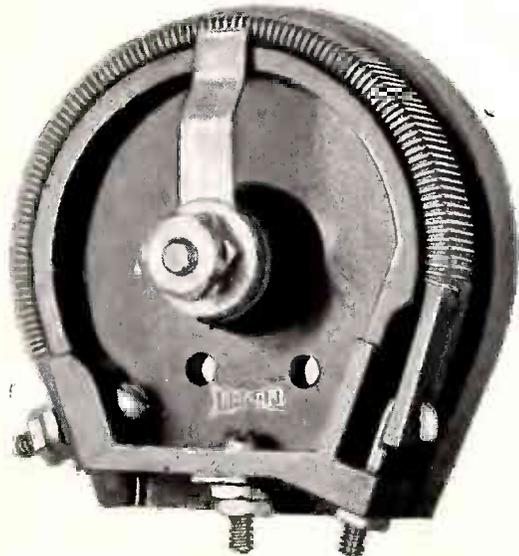


*Pat. Pend.*

VARIABLE CONDENSER. Vernier.  
Only CONDENSER having both ROTOR PLATES and VERNIER. Controlled by ONE KNOB. Stationary plate assembly same as Plain type.  
12, 24, 44 Plates.



GRID CONDENSER and TERMINAL.  
Adjusted for UV-200, UV-201, WD-11 Tubes.



*Pat. Pend.*

FILAMENT RHEOSTAT. Plain.  
Bakelite Base. Untreated Fiber Strip anchored at only one end and adjustable to hold firmly against flange of base. No corroded or shorted Resistance. Rugged construction.

SPECIAL DISCOUNTS  
TO  
DEALERS  
DISTRIBUTORS  
MANUFACTURERS



*Pat. Pend.*

FILAMENT RHEOSTAT. Vernier.  
Low Resistance Unit in series gives accurate and positive regulation.

## THRESHER RADIO & MACHINE CORPORATION

476-484 Eighteenth Avenue, Newark, N. J.

# For Radio Frequency Sets

*Constantly Making New Distance Records*

## Here's a Complete Assortment



### Crosley Model VI

This set consists of one stage of Tuned Radio Frequency Amplification and Audion Detector. It is normally for use with head phones but is especially recommended to be used with any type of loud speaker. Additional amplification is unnecessary if head phones and horn are used in receiving local stations. With the Crosley Receiver Model VI distant broadcasting stations are brought in loud and clear. It also eliminates static to a large extent.

Mounted on formica panel, Adam brown mahogany finished cabinet without tubes, batteries or phones

Price ..... \$30.00

### Crosley Model VIII

A new set offering exceptional value. Contains one stage of tuned radio frequency amplification, detector and one stage of audio frequency amplification. Also offered as a portable instrument, using 1 1/2-volt tube. Price, without batteries, tubes and phones, **Regular Model VIII, \$48, Model VIII Portable, \$60.00.**



### Crosley Model X

The most complete receiving set on the market. A 4-tube set consisting of one detector, one stage of tuned radio frequency and two stages of audio frequency amplification. In placing this receiver on the market, we are offering you a unit whose range, volume and selectivity is remarkable. Nothing can compare with it at twice the price. Developed in the Crosley laboratories, this unit is absolutely the last word in long range Radio Receiving Apparatus. Used with head phones and loud speaker, it will bring in distant stations all over the house. Price, without phones, batteries or tubes..... \$55.00



### Crosley Receivers

From our smallest complete receiving outfit at \$25, including other sets incorporating Crosley radio frequency tuned amplification at \$28, \$48, \$55, and up to our beautiful Console Model XXV, price \$150, Crosley instruments offer the highest efficiency at the lowest cost.

**CROSLEY**  
Better — Cost Less  
RADIO RECEIVERS

*Write for Catalog*

### Crosley Parts

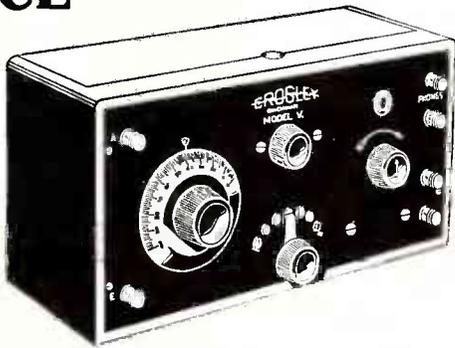
We also manufacture a complete line of parts for those who wish to make their own outfit. Among these are Variable Condensers, Knobs and Dials, V-T Sockets, Variometers, Vario-Couplers, Rheostats and the well-known Crosley Radio Frequency Amplifying Tuner.

**CROSLEY MANUFACTURING CO.**  
332 ALFRED ST., CINCINNATI, OHIO

**CROSLEY  
ACE**

**Regenerative Receivers**

**\$20.00  
and  
up**



**Crosley Model V Regenerative Receiver**

Remarkable records are being achieved by owners of the Crosley Model V regenerative radio receiver, which is the greatest result-producing one-tube set being manufactured today. With a range of from 150 to 600 meters, this little wonder brings in amateur, broadcasting and commercial stations. Concerts broadcast more than 1000 miles away are heard by those who own the Model V. The cabinets are arranged to permit use of the one and one-half volt tubes, with which they operate very efficiently. Use of these tubes eliminates necessity of buying more expensive "A" batteries. The name "Crosley" is used by permission of the Crosley Manufacturing Company. Made in two models. Both have Adam brown mahogany finished cabinets and beautifully engraved panels. The Crosley two-step amplifier matches this unit perfectly.

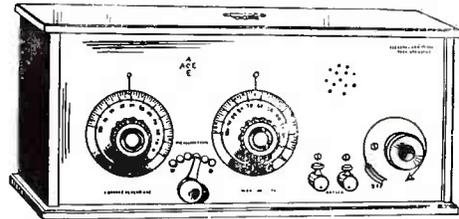
- Model V-C..... \$20.00
  - Model V-D..... \$19.00
- Model V-D has overhanging lid, otherwise it is the same as Model V-C.

**ANNOUNCEMENT**

Powel Crosley, Jr., President of the Crosley Manufacturing Company, has acquired controlling interest of the capital stock of The Precision Equipment Company, of Cincinnati, licensed to manufacture regenerative apparatus under Armstrong Patents. Crosley management, production and sales methods already have enabled us to offer even better apparatus at lower prices.

**ACE TRU Regenerative Radio Receiver**

No powerful station in the United States is too far away to be copied by owners of the Tru radio receiver. The cabinet of the Tru is beautifully finished, the panel is of genuine formica and all the parts are the most efficient obtainable. Without amplification, the Tru will bring in distant stations loud and distinct. In comparison with any of the highest quality instruments available, the Tru receptor will equal, if not surpass, the performance of any of them. If the owner desires to operate a loud speaker, an amplifier must be added, and we recommend the AV-2, illustrated below.

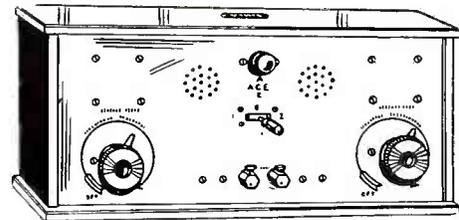


Price of the Tru Receptor (formerly \$65) now.....\$35.00

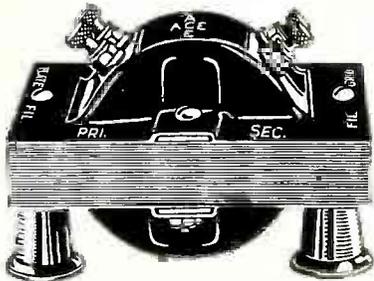
**ACE AV-2 Two-Step Amplifier**

The AV-2 Two-Step Amplifier designed to be added to the Tru radio receiver, with which it matches perfectly, may be used in conjunction with any audion receiver. Ace type transformers and sockets are used in the AV-2. The cabinet is beautifully finished. The panel is of genuine formica. There is a switch permitting use either of one or two stages of amplification, and also special binding posts for the use of head phones in conjunction with a loud speaker. Experiments have shown that the amplification constant is approximately twenty times that of the incoming signal on the first stage and 400 times on the second.

Price of the AV-2 (formerly \$65) now..... \$35.00



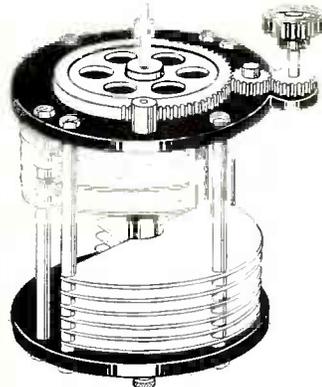
**Ace Transformer**



Enormous amplification has been attained and foreign noises have been eliminated through use of the Ace transformer. A generous core of high-grade transformer iron supports rugged primary and secondary windings. The core, in turn, is supported by two nickel-plated cones, which permit of base or panel mounting. Plainly marked terminals through insulation bushings in the shell provide convenient connections in the circuit.

Price ..... \$5.00

**Ace Condenser**

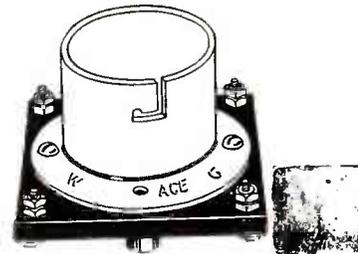


Capacity .0005 Mfd.

Exclusive features of this condenser are too numerous to dwell upon. These, however, include balanced non-warping plates, carefully adjusted, and a fine positive gear vernier, with a five to one ratio.

Price with Vernier..... \$7.50  
Without Vernier ..... 5.00

**Ace Tube Socket**



A real good socket, built to stand long and hard service. There is no moulded base to melt when the soldering iron is applied. Instead this is of real sheet formica, one-quarter inch thick. Substantial metal die casting—pure phosphor bronze springs. This socket has been designed to prevent short circuiting and burning out of the expensive vacuum tubes. Prong contacts are carefully adjusted. One and one-half volt tubes may be used in these after adapters are inserted. We recommend the adapters made by the Crosley Manufacturing Company.

Price ..... \$1.00

Licensed under Armstrong U. S. Patent No. 1,113,149, October 6, 1914. For use by radio amateurs in radio amateur stations, to radio experimenters and scientific schools and universities, for use in experimental and scientific schools or university radio stations. The Crosley Manufacturing Company has discontinued the sale of regenerative radio receivers, but Crosley dealers will be able to supply you with those made by the Precision Equipment Company.

WRITE FOR CATALOG OF COMPLETE SETS

**THE PRECISION EQUIPMENT COMPANY**

POWEL CROSLEY, JR., President

332 GILBERT AVE.

CINCINNATI, OHIO

## An unusual Equipment for an unusual Service

The National Vulcanized Fibre Company is the result of the consolidation of three large and well-known fibre manufactories. Each of these three organizations has contributed unusual equipment and facilities for the manufacture of Vul-Cot Fibre and Vul-Cot fibre products.

### Three-fold Service

The present organization offers to manufacturers unprecedented fibre service—a service with three-fold equipment for speedy production, three-fold facilities for quick deliveries and a three-fold reputation.

### Make it of Vul-cot Fibre

The guaranteed purity of Vul-Cot Fibre—its strength, toughness and work-ability has made it a part of the products of a host of well-known manufacturers. If there is a place for fibre in your product—either in a very minor or very important position—this unusual experience in the manufacture of all sorts of fibre articles and parts, this unusual service is at your command.

### Just a reminder

The three organizations that have combined to form the National Vulcanized Fibre Company with headquarters in Wilmington, Delaware, are the National Fibre and Insulation Co., the Keystone Fibre Co., and the American Vulcanized Fibre Co.



# Where to Buy

## A Handy Guide For The Convenience of Our Readers

AMPLIFIER UNITS		DIALS	
Magna Instrument Co.....	63	N. Y. Radio Dial Co.....	68
Steinmetz Wireless Mfg. Co...	63	DIALS (MICROMETER)	
AMPLIFIERS		Mydar Radio Co.....	Second cover
Standard Metal Mfg. Co.....	29	DISTRIBUTORS	
Multiple Elec. Products Co....	67	Ell-Ess Radio Exchange.....	42
AMPLIFYING TRANSFORMERS		Goetz Co., The Edw. J.....	44
Rauland Mfg. Co.....	53	Hudson-Ross .....	66
ANTENNA WIRE		Kramer Radio Co.....	44
Copper Clad Steel Co.....	48	Pruden, Frederick H.....	44
AUDIO TRANSFORMERS		Radio Distributing Co. Front cover	
Ferd Mica Co.....	49	Radio Shop of Newark, The...	68
BATTERY CHARGERS		Radio Stores Corporation...	54, 72
The Automatic Elec. Devices		Schwab, Harold M., Inc.....	31
Co. ....	32-33	Virginia Radio Corp.....	61
BATTERY TESTERS		DRY CELL SETS	
Chaslyn Co. ....	68	Q. T. Light Co.....	56
Hafner Mfg. Co.....	44	DRY CELL TUBE SOCKETS	
"B" BATTERIES		Bruno Radio Corp.....	60
Edison, Thomas A., Inc.....	38	ENGRAVING	
French Battery & Carbon Co.	64	Paramount Machine Co.....	44
Gould Storage Battery Co....	44	EXPOSITIONS	
Novo Mfg. Co.....	52	Permanent Radio Fair.....	46
BATTERIES		FLEWELLING PARTS	
Carbon Products Co.....	28	Hudson-Ross .....	64
BESTONE PRODUCTS		GENERAL LINE	
Henry Hyman & Co., Inc.....	58	Federal Telephone & Telegraph	
BINDING POSTS		Co. ....	62
The H. H. Eby Mfg. Co.....	41	HEAD SETS	
BUSS WIRE		Royal Electric Laboratories...	56
Essex Mfg. Co.....	54	Tresher Radio Corp.....	9
CABINETS		Triangle Electro Trading Co...	64
E. Eshoo Cabinet Works.....	48	True Tone Radio Mfg. Co....	67
Marvin B. Fallgatter.....	46	HONEYCOMB COILS	
CHARTS		General Merchandise Co.....	52
S. Newman & Co.....	27	HORNS	
COIL MOUNTINGS		Fiber Products Co.....	55
Astorloid Mfg. Co.....	42	HYDROMETERS	
Crown Radio Mfg. Co.....	28	Testrite Instrument Co.....	50
COMPLETE LINE		INDOOR AERIALS	
Adams-Morgan Co.....	7	Short Cut Radio Corp.....	9
Atwater Kent Mfg. Co.....	4, 5	INSULATION	
Electric Service Supplies Co...	46	National Vulcanized Fibre Co.	12
King Sewing Machine Co....	72	Diamond State Fibre Co.....	3
Mills Radio & Elec. Co.....	64	JACKS	
CONDENSERS		Saturn Mfg. & Sales Co., Inc..	30
Freshman Co., Charles.....	43	Union Radio Co.....	40
Signal Radio & Elec. Corp....	50	LIGHTNING ARRESTERS	
CRYSTALS		Brach, L. S., Mfg. Co.....	54
Gibbons-Dustin Radio Mfg. Co.	55	Electric Service Supplies Co...	47
Harris Laboratory .....	53	Radio Accessories Co.....	39
Jayxon Lab. ....	50	LOOP AERIALS	
M. P. M. Sales Co.....	69	Eagle Radio Co.....	36
Radio Apparatus Co. (Pitts-		LOOSE COUPLER SETS	
burgh) .....	48	TF. Radiophone Co.....	62
Rusonite Products Corp.....	52	LOUD SPEAKERS	
Standard Mineral Co.....	27	Bristol Co., The.....	31
CRYSTAL DETECTORS		Inter-Ocean Radio Corp.....	66
European Radio Co.....	57	Magnavox Co. ....	25
CRYSTAL RECEIVERS		Sheltone Mfg. Co....	64-42-50-37-58
Holloway Elec. Supply Co., Inc.	52	MAILING LISTS	
CUSTOM BUILT SETS		Ross-Gould Co. ....	68
Lewis & De Roy.....	44	Trade Circular Addressing Co.	68
DETECTORS		MERCHANDISE WANTED	
Radio Detector Co.....	54	Jackson, P. D.....	44
		MICA	
		Mica Insulator Co.....	14

Alphabetical Index to Advertisers on Page 8

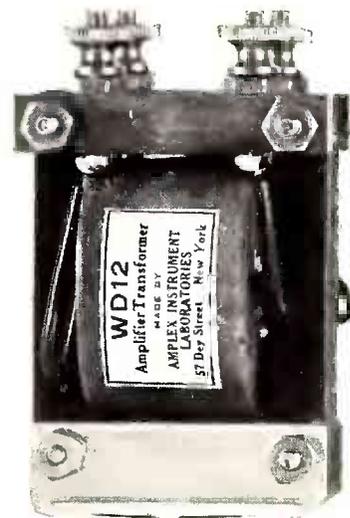
# Where to Buy

## A Handy Guide For The Convenience of Our Readers

MICA CONDENSERS European Radio Co..... 57	SOCKET RHEOSTAT Ajax Radio Corp..... 40
MICA DIAPHRAGMS Radio Mica Products Co..... 65	SOLDERING IRONS Post Electric Co..... 57 Strauss & Blum, Inc..... 56
MICROMETER DIALS Mydar Radio Co. Inside front cover	SPAGHETTI TUBING Mica Insulator Co..... 14 Mitchell-Rand Mfg. Co..... 44 Westphal Mfg. Co..... 62
MOLDED INSULATION Shaw Insulator Co..... 38	STOCK BROKERS Stanton & Co., Frank T..... 48
OFFICE EFFICIENCY HELPS Fess-Gould..... 68	SWITCH LEVERS King Sewing Machine Co..... 72
PANELS American Hard Rubber Co.... 8 Continental Fibre Co., The.... 53 Eisemann Magneto Corp., Inside back cover New York Hard Rubber Turn- ing Co. .... 52 Pittsburgh Radio & Appliance Co. .... 48 Poster & Co..... 56 Standard Wireless Panel Co... 35	SWITCH PLUGS Four Way Co..... 65
PAPER CONDENSERS Walter E. Bathgate..... 58	TESTING LABORATORIES Gregg & Co..... 44 N. Y. Testing Laboratories.... 57
PARTS	TRADE ASSOCIATIONS Radio Trade Association..... 71
Darling Radio Co..... 54a	TRANSFORMERS Amplex Instrument Labs.... 13 Brooklyn Metal Stamping Co. 51 Ford Mica Co..... 49 Marle Engineering Co..... 32 Radio Center ..... 61 Radio Courses, Inc..... 42 Samson Elec. Co..... 43 Superior Products Mfg. Co.... 50 Thornton Transformer Co.... 52
PATENTS Manufacturers Patent Co..... 44 Omen, Robt. E..... 50	TUBES Werner & Patch..... 60
PHONES Briggs & Stratton Co..... 14 Dictograph Products Corp.... 49 T-B-H Corporation..... 69	UNIT TYPE SETS Heinemann Elec. Co..... 69
PHONE PLUGS S. S. Novelty Co..... 40	VARIABLE CONDENSERS Diamant Tool & Mfg. Co..... 44 Standard Appliance Mfg. Corp. 44 Stuckeman Bros., Inc..... 52 United Mfg. & Dist. Co..... 45
PHONE TIPS Union Radio Corp..... 40	VARIO-COUPPLERS Eastern Radio Mfg. Co..... 58 G. H. Fischer & Co..... 40 Globe Radio Equip. Co..... 66 MacLite Storage Battery Co... 68 Queens Radio Co..... 14 Shamrock Radio Co..... 57 Wald Elec. Co..... 58
RADIO FREQUENCY SETS Mu-Rad Laboratories ..... 35	VARIOMETERS Aremco Mfg. Co..... 57 Atwater Kent Mfg. Co..... 4, 5 Eagle Radio Co..... 59 Radio Products Mfg. Co..... 63
RADIO TRADE-MARKS Carter, Chauncey P..... 61	VARIO WAVE TUNER Fischer, G. H., & Co..... 40
RECEIVING SETS Adams-Morgan ..... 7 Arrow Radio Co..... 42 Atwater Kent Mfg. Co..... 4, 5 Betts & Betts..... 51 Clapp-Eastham Co. .... 44 Crosley Mfg. Co..... 8, 9 Magna Instrument Co..... 63 Metro Elec. Co..... 59 Moon Radio Corp..... 68 Oranola Radio Corp..... 56 Radio Outfitting Corp..... 44 Save Sales Co..... 39 Simple A Radio Co..... 54-B United Specialties Co., Inc.... 58 Victor Radio Corp..... 44 W. B. L. Radio Co..... 68 W. E. Supply & Service Corp. 44 Winkler, Inc., Chas..... 44	VERNIER CONDENSERS Bremer-Tulley Radio Co..... 50 Cozzone, John, & Co..... 50 Electric Products Co..... 44
REINARTZ SET PARTS Hudson-Ross ..... 68	VERNIER RHEOSTATS Viking Radio Co..... 50
RHEOSTATS Aerovox Wireless Corp..... 58 Allen-Bradley Co. .... 41 Darling Radio Co..... 54a Parkin Mfg. Co..... 47 Radio Stores Corp..... 72 Superior Products Mfg. Co.... 50 Wald Electric Co..... 64 Wilcox Laboratories, The.... 48	VOLTMETERS Weston Elect. Instrument Co.. 6
SOCKETS Bruno Radio Co. rp..... 60 Commercial Screw Machine Co. 64 Franklin Radio Co., Inc..... 50 Spee-Dee Specialty Co..... 36	WAVE TRAPS Mydar Radio Co..... 71

Alphabetical Index to Advertisers on page 8

# AMPLEX WD12



THE  
ONLY

**A** MPLYING Transformer especially designed for use with 1½ volt tubes.

**M** ADE by ex-Government Engineers.

**P** ROVEN to give greater volume with less distortion than any other transformer made.

**L** EADING manufacturers use them.

**E** NGINEERS and thousands of fans recommend them.

AMPLEX WD 12 Transformers fill the greatest demand for transformers ever created.

Are you getting Your share of the business?

**X** TRA liberal discounts to live dealers and jobbers.

List Price \$5.00

AMPLEX INSTRUMENT  
LABORATORIES

57 Dey St., New York, N. Y.

New York  Tribune  
First to Last—the Truth News Editorials Advertisements

JANUARY 7, 1923

### Well Known 'Spaghetti' Is An Insurance Against 'Shorts'

Mica Insulator Company's Tubing—  
Most of us take an interest in the final appearance of our home-concocted sets and all of us in their proper performance. Tubing of the oiled, or blackfish paper type, will contribute to both. Where there is a multiplicity of short leads to a tapped inductance, or beneath the base panel when underwiring is used this type of tubing is first class insurance against intermittent "shorts" that so often surround the set with an air of mystery. A slight vibration in such a case will bring forth a roar of protest from the phones or perhaps complete silence for an interval. The tubing comes in several sizes, with various degrees of flexibility to suit any of the ordinary connections. Manufactured by Mica Insulator Company, New York City.

*Jack Binns*

## New York Tribune Certifies Empire Oiled Tubing

We are glad to announce that our Style "B" Empire Oiled Tubing and Black Fish Paper Tubes have been tested in the Tribune Laboratories and approved, and we have been awarded the Tribune Institute Certificate.

This new proof of a quality product supplements many years of use throughout the electrical industry.

Send today for Empire Tubing samples and quotations on 500, 1,000, 5,000, 10,000, 20,000 foot lots. Get acquainted with our other time tested radio insulation products.

## MICA INSULATOR COMPANY

68 Church Street, New York

542 So. Dearborn Street, Chicago Works: Schenectady, N. Y.

Agencies—The Monroe Brass & Wire Co., Cincinnati; G. Arthur Morrel Cleveland; Los Angeles Electrical Specialty Co., San Francisco

2026-E

## Designed! Not Just "Made"



The market is over-run with head phones. Some are "made to sell"—others "designed" to perform a service—a service measured in terms of sensitiveness, tone quality, clarity—phone efficiency.

Such is the Basco Radio Head Phone—built first for service. *Designed*—not just "made." One year on the market—and a phenomenal sales record. Why? Examine one.

They are tuned to a deep natural-voiced pitch—and keenly sensitive. Perfectly balanced—clear scratchless reproduction. Coils encased in aluminum shell—light weight—easy on the head. Employ solid horseshoe magnet—no laminations. The diaphragm is extra light—set to thousandths-of-an-inch accuracy from magnet poles.

\$6 2000  
Ohm

\$7.50 3000 Ohm

Jobbers and Dealers!  
Write for our exceptional discount proposition on our complete line of parts and name of our nearest representative.

 **RADIO**  
**Head Phones**  
"Hear More and Cost Less"

Compare their construction with the highest priced phones on the market. You will find Basco Head Phones are clean cut and ruggedly designed throughout. See them before you buy.

12 Years  
in  
Business

**Briggs & Stratton Co.**  
Milwaukee  **PRODUCT**  **Wisconsin**

Mfrs. of  
Famous  
Basco Line

# The Radio Dealer

THE RADIO TRADE JOURNAL

*Edited and Published at*

1133 Broadway, New York, N. Y.

FOR THE RADIO RETAILER

VOL. 2. NO. 6

MARCH, 1923

ONE DOLLAR THE YEAR

## Your Store Is Your Best Advertisement

### Effective Arrangement of Radio Shops From Window to Counter Displays Mean Thought

By N. B. ZIMMERMAN

As the retail radio trade becomes more established, dealers are beginning to realize that, as in any other branch of the retail game, to stock up a store is not sufficient to establish a successful business.

Much has been said in the past about the value of daily and weekly newspaper advertising, the distribution of circulars through the mails and the free publicity of established radio departments in the newspapers. But in such discussions, the retail store itself is usually neglected.

The importance of the store itself cannot, however, be over-estimated. Here at least the sales are made, and here it is, moreover, that many potential buying prospects are converted into actual buyers, first through the window displays and second through counter displays and demonstrations in the store.

It is conceivable, for instance, that an attractive campaign in the newspapers should bring interested prospects to the radio store. But on

seeing a heterogeneous pile of radio parts heaped up in the window displays, it is also conceivable that these potential customers should be turned back without getting any further than the door.

It is therefore obvious that the building of window displays should demand careful thought on the part of the radio dealer. That he is thinking of the importance of such displays is evidenced by the fact that in a recent window display contest conducted by the Manhattan Electrical Supply Company of New York City, dealers the country over took part, putting up special windows. The contest was keen and the winning window display, reproduced in this issue of THE RADIO DEALER, represents the pick of hundreds of entries.

The problem of window displays resolves itself into the question of how the dealer wants the public to regard his store. There is only one kind of radio store, it is true. The radio store is a retail business that handles



Window display of Louis D. Ruben Electrical Co., 345 King Street, Charleston, S. C., that won first prize in contest conducted by Manhattan Electrical Supply Co.

(Continued on page 60)

# Present Trade-Marks Do Not Protect Products

## Expert Shows How Consumer is Not Assured of Quality of "Imported" Goods Made Here

By CHAUNCEY P. CARTER

The protection and lack of protection embodied by a trade-mark registered in the United States is being brought out more clearly every day by the decisions of the American courts. These decisions, forming the basis of future laws on the subject, are proving of great importance to those in the radio industry, and will prove of greater importance as the importation of radio apparatus becomes more general.

Not long ago, the United States Circuit Court of Appeals for the Second Circuit created quite a flurry in the import specialty trade by holding that the purchaser of the right to the exclusive use in the United States of a foreign trade-mark for a certain article could not prevent another firm in the United States from importing supplies of that article packed and so trade-marked by the original foreign owner of the trade-mark. This decision of the Circuit Court in the case of *A. Bourjois & Co., Inc., v. Anna Katzel*, which was rendered in June, 1921, reversed an earlier decision of the District Court, and was based on the fact that the public was not deceived since it got the same powder from the defendant as it did from the plaintiff, except that the plaintiff imported its powder in bulk and packed the same in this country whereas the powder imported by the defendant was packed by the manufacturer of the powder in France. One of the learned justices of the Circuit Court filed a very interesting dissenting opinion in which he took the position that "a trade-mark is primarily a protection to the owner's business" and only secondarily an agency for "protecting the public from imitations." Probably on the basis of this dissenting opinion, counsel for *A. Bourjois & Co., Inc.*, filed a petition for a rehearing of the case and asked that the question be certified to the Supreme Court in view of its importance as affecting the "many businesses with their accompanying trade-marks of German citizens bought during the European war

by citizens of this country from the custodian of alien property." This petition was dismissed in language that made clear the position of the Circuit Court, viz.: that inasmuch as *Bourjois & Co.* had continued to obtain their supply of powder from the original source, it made no difference that they had purchased the right to the exclusive use of the mark in the United States since the mark still distinguished powder from the original source, namely the French proprietors of the mark and business, and as long as it was used only on such powder, the public could not be confused or deceived and there could be no infringement.

It was at once seen that under this decision the purchasers of the rights in this country in foreign trade-marked articles were not safe from indirect competition here with the people from whom they purchased such rights. Two courses were open to the losers by this decision, namely to apply to the Supreme Court for a writ of certiorari or to apply to Congress for legislation to adjust the situation. As a matter of fact, both of these courses were adopted and strange to relate both were successful. On September 21 last, the President approved the Tariff Act of 1922, Section 526 of which prohibits the importation of merchandise bearing a trade-mark registered by a citizen of the United States in the Patent Office and in the Customs Offices here without the consent of such registrant. Merchandise imported in violation of this provision is subject to seizure and forfeiture under the Customs laws and any person dealing in such merchandise may be enjoined and required to destroy or export the same or to remove or obliterate the trade-mark and is liable for triple damages and profits.

The writ of certiorari was issued by the Supreme Court as applied for and on January 29, 1923, that Court handed down its opinion in the case which reverses the decree of the Circuit Court cited above. The decision

of the court of last resort holds that inasmuch as "the French manufacturers could not have come to the United States and have used their old marks in competition with the plaintiff," no one else should be allowed to do so. Of the trade-mark, the Court said "It stakes the reputation of the plaintiff upon the character of the goods," implying that one who is willing to stake his reputation on the quality of goods identified by a certain trade-mark should not be called on to stand sponsor for goods bearing that trade-mark over which he can exercise no control. It might be for instance, that the *Bourjois Company* exercised special care to see that the powder which they placed on the market would reach the consumer in good condition and that packages would be full weight, etc., and this care might have had a great deal to do with the popularity of the article here. Under the circumstances, it would hardly be fair to let someone else get powder from the same source and put it on the market under the same mark but without exercising any care to see that the packages were full weight or that the powder would reach the consumer in good condition. In other words, the trade-mark had come to mean more than the origin of the article in a certain factory in France; it signified in addition that such powder has been selected, imported, packed and marketed by the plaintiff and that said plaintiff stood responsible for its quality, for the statements, if any, on the label, the methods of distribution in this country and a hundred and one other particulars any or all of which might be of great benefit to the ultimate purchaser who in purchasing additional quantities of such powder under the same trade-mark would naturally expect the benefits of the same care that had been bestowed upon packages previously bought under that mark.

The decision is a good one, being  
(Continued on page 53)

# Hook-Ups As An Aid to Sales Promotion

Research of Trade Has Proven That the Distribution of Hook-Ups Has Greatly Increased the Sale of Parts

By SIGMUND NEWMAN  
Of S. Newman and Company

After a dull summer, which caused the pessimist to say that the radio boom of last spring would never be seen again, the radio business is again doing well. However, its characteristics have changed. While this time last year most sales were of complete outfits, this year the bulk of the business is composed mainly of parts and accessories. Comparatively few expensive sets are being sold. Loudspeakers, power amplifiers and the like, which the amateurs and radio fans cannot make themselves, of course, find a ready market. It is indeed a very interesting experiment to visit the various radio stores and listen to conversations between salesmen and buyers. One notes that even the most inexperienced fans want to build their own and are looking for all the information available; magazines and books are perused for the latest developments.

Great publicity has been given lately to several forms of "new" circuits, some of them being merely old hook-ups disguised under another name. Wonderful results are claimed for these circuits and undoubtedly they bring in distant stations when properly built and operated. The radio fan of today wants to try them out and will spend a good deal of money buying parts to experiment to learn more about the art.

We know of some wealthy radio fans who bought complete outfits last year, with which they played for a while and then, after being bothered with code, static and other interference, they inquired as to how to get rid of these nuisances, how to cut out the amateur stations and anything and everything that disturbed the broadcasting. After getting information from one source or another, they started to "improve" their sets by adding variable condensers, wave-traps, etc. Today, the complete outfits are cobwebbed in a corner and home-made sets have taken their place.



SIGMUND NEWMAN

Another great craze that has come is distance. Everybody wants to hear distant stations even if the programs are not as good as those of the local stations; most of the fans are happy

if they can hear the announcer give his call letters and the location of the station. To hear distance, tubes are added, radio frequency amplifiers constructed, special tuners wound and a lot of other improvements made in order to bring in DX. All these fans and amateurs have found that the real fun of radio is getting good results by building proper apparatus. The reasons why they build their own are twofold. First, they can build any particular set or combination of outfits that they desire and second the cost of such receivers and amplifiers is much lower than a ready-made set since they only have to buy the parts and they do not count their time. Moreover, the home-made set can be transformed at will into a different type by the addition of a few parts. The circuit may be changed and the tuning quality as well as the results usually improved. By doing this, most fans, who last year had little practical experience with tools, began

*(Continued on page 58)*

## Why Buy from the Jobber of Radio Goods?

By A. E. POLLOCK  
Of the Inter-Ocean Radio Corp.

This is a question of vital interest and must be answered and settled before the Radio business shall become the staple industry that destiny has decreed it shall be.

Experience has taught, that no manufacturer can successfully market a product no matter how good until the problem of distribution has been solved; or in other words, until a definite means of quickly supplying the demand of the ultimate consumer has

been created. The very magnitude of this country makes it impossible to eliminate the jobber in the distribution of merchandise; what does any manufacturer in New York know about a small dealer in the average small town, in let us say, Idaho; what position is he in to judge his credit standing satisfactorily? The local jobber of a community stands in the same relation to

*(Continued on page 66)*

# Bright Future for the Dealer Is Assured

## Though Still in Its Infancy, Great Popularity Such as Automobile and Movies Achieved Will Come to Radio

By A. H. CORWIN

Treasurer, Radio Distributing Co.

Many questions, some foolish, some otherwise, have been put to me by radio dealers and radio enthusiasts in reference to the future of radio. In the main, the two questions of greatest interest to the trade have been: "Is radio a fad, destined to die out?" and "When will radio reach the saturation point?"

Every reader knows that radio is not new. Yet prior to 1921 it was practically unknown to the man on the street. It was in that year that the "radio craze" began to sweep the country, spreading with the rapidity of a prairie fire until North, East, South and West were talking radio, dreaming radio, constructing radio and listening to radio.

It is needless to speak of the results of this sudden boom. On every hand there sprang up radio manufacturers and radio dealers, all eager to reap a quick harvest of profits. Radio machines made their appearance in veritable droves. Every one seemed to have a "new" style set or some new part that he had invented. Their visions of sudden riches dimmed the rough road of competitive merchandising and distributing costs that must be overcome for permanent success.

And then came the reaction! Inevitable as night follows day! The market became flooded with radio parts and outfits, many of which were absolutely worthless. There is nothing that can so quickly kill enthusiasm as a worthless article. People unable to differentiate between the good and the bad reverted to the rule of "safety first" and stopped buying!

Sales dropped off—the radio industry suffered—yet some lasting good resulted. The worthless stuff went begging, but there were no buyers in sight. The radio industry went through the same experiences that every young industry invariably is forced to experience. Mushroom growth is not conducive to a firm foundation.

There has been a constant struggle for "the survival of the fittest." There has been a heavy mortality of machines taken on the market. Many more will fall by the wayside.

And the survivors will be those that

have stood the test, that have passed through the consuming fire of the experimental stage and have so improved their products as to give an all-satisfying service to the user, manufacturers who have a definite and far-seeing policy of advertising nationally, thereby creating new sales for radio outfits.

The wise retailer will select machines of outstanding merit and individuality, and begin to build for permanent trade. If he expects to stay in business he will link up with his manufacturer and distributor, use their their window display trims and do local advertising.

Radio is here to stay. It is no longer a fad. It has taken its place as a means of entertainment and education alongside of the talking machine and the moving picture.

Think of what radio has accomplished for people who live on farms and in rural communities. And remember that the major portion of the American population lives in towns of less than 5,000 inhabitants! Think of the growing generation—how their imaginations are fired and their ambitions spurred by listening to the living, breathing voices of men who are the nation's leaders in business, in statesmanship, in religion and education. Think of young America thrilling to the report of a world's baseball series, spellbound by the roars of the crowd and with ears alert to hear the crack of the bat.

Think of the people of the Middle West listening to concerts by the City Symphony Orchestra of New York or grand operas, or Vincent Lopez's Pennsylvania Hotel Band, or artists whom even in their rosiest dreams they never hoped to hear. The radio is instilling a greater culture and a love for the music of the masters of old into the hearts of countless Americans. It is an educational, refining and entertaining influence that is difficult to overestimate. Can such a thing be a fad? Never!

Radio has proven its worth in times of peace—how about in times of war? Picture a radio set with a loud speaker in every public school, courthouse, city hall and other public building through-

out this land. Suppose war has been declared; people are eagerly awaiting news from the nation's head, wondering what the next move will bring. The morning papers announce that this evening the President will broadcast a message to the nation. Picture this in your mind, and answer this question: "Will people flock to the public places where radios are installed, or will they calmly wait to read the message in the next morning's newspapers?" To folks who know human nature there can be but one answer: Those who haven't a radio set of their own will come from miles around to listen to the voice of the President.

No longer will the roll of drums and the blare of bugles need to rouse the nation to arms. A single voice, spoken at Washington, but heard throughout the length and breadth of the land, a voice vibrant with emotion, staunch with courage and ringing with authority will summon the nation to action, will weld a hundred million people into a solidarity such as the world has never before known. The radio of today will be the Paul Revere of 1775!

Few have cause to criticize the programs or the methods of broadcasting of the leading stations of the country. Yet everybody knows that broadcasting is still in its infancy. The years to come will bring improved changes in the manner of transmitting and in the quality of the program. We are still in the embryonic stage of development. We are where the automobile was twenty years ago or the moving picture was fifteen years ago.

Remember the old Nickeldrome, where for the munificent sum of five cents we could be thrilled for an entire evening? Remember the blood curdling scenes of Wild West; the Injuns and cowboys; the sleepy youngster thumping a hollow sounding piano with more vigor than skill; and the audible sigh of satisfaction and relief as the handsome hero rescued his maiden fair from the cruel designs of the villain? What a far cry from the photographic splendor and realism of today! The radio, too, is bound to improve with the passing of time—both in quality of the machines and

(Continued on page 40)

# Three Contests Indicate Interest in Radio

## Huge Number of Entries in Manhattan Electrical Company Contest Delays Announcement of Winners

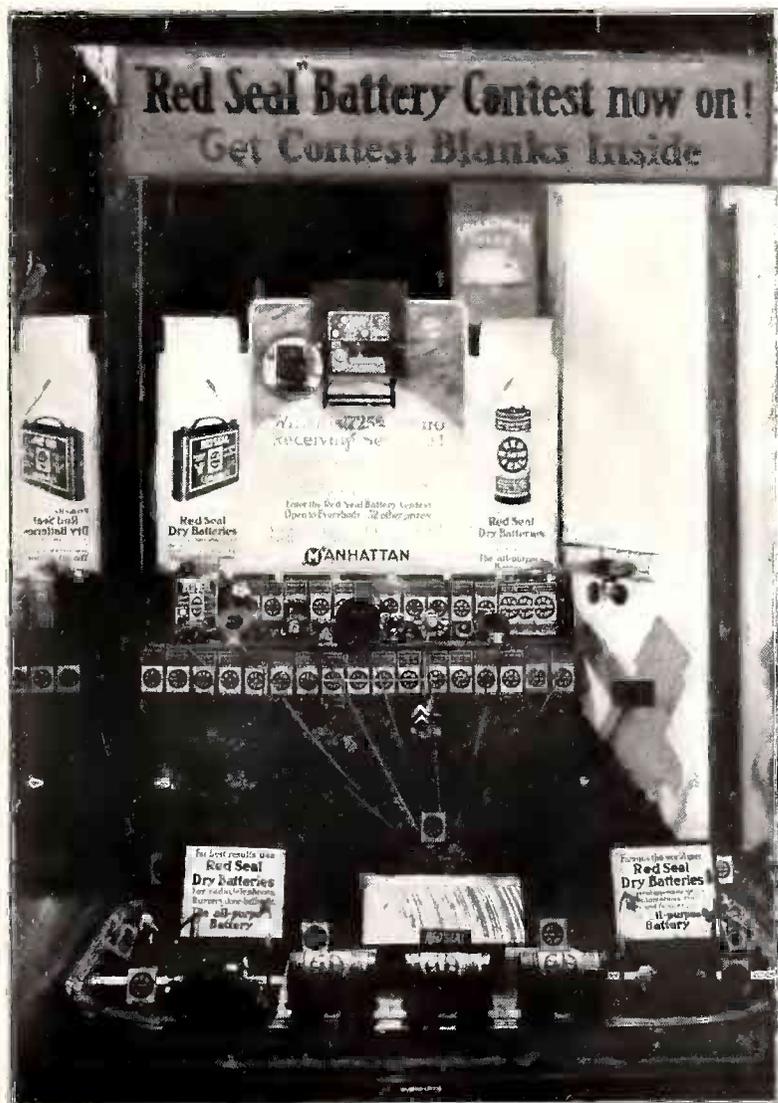
By L. N. ALLEN

Dealers, jobbers' salesmen, and people interested in electricity in general, have eagerly awaited the results of the three competitions conducted by the Manhattan Electrical Supply Company, Inc., of 17 Park Place, New York. The enormous number of entries caused a delay of almost a month in awarding the prizes of the three contests, which were run off simultaneously.

The contest for the dealers in radio and electrical equipment was in the form of a window-display competition, in which dealers from all over the country took an enthusiastic part. Retailers in every State in the Union fixed up their windows into attractive displays calculated to create a favorable impression toward radio and Manhattan Electrical radio specialties. The winner of the first prize in this contest was the Louis D. Rubin Electrical

Company, of 345 King Street, Charleston, S. C. A photograph of this prize-winning window arrangement is reproduced on page 15 of THE RADIO DEALER. George A. Myers & Co., Inc., 61 Washington Street, Paterson, N. J., were winners of the second prize in this dealers' competition, while two firms were tied for third prize, the companies be-

*(Continued on page 62)*



This window display won a tie for third prize for the Busch Hardware Company, 5745 West Division Street, Chicago, Ill.



Second Prize in the Manhattan Electrical Supply Company's Dealers' Window Contest. It was arranged by George A. Myers & Co., Inc., 61 Washington St., Paterson, N. J.



Tied for third prize, this fine window arrangement attracted much attention to the H. L. Miller Co., Pasadena, Calif.

# Do Cut Prices Make Radio More Popular?

## Owner of Chain Radio Stores Maintains that Low Prices Make Radio More Attractive for Those Whom It Interests

By HAROLD M. SCHWAB

President, Harold M. Schwab, Inc.

During these days of heated discussion on price-cutting, discounts, slashing and so called "gypping" of radio supplies, it might be interesting to consider where the radio industry would be today without the dealer who practices these so-called evils.

Let us suppose that the price-cutter does not exist and that all radio merchandise is sold over the retail counter at full list price. In other words, let us suppose that a switch lever sells for 75 cents, a rheostat for \$1.50 and a composition socket for \$1. If all other supplies were based on these same prices, the American boy with a keen desire to build a radio set and listen to the wonderful broadcasting schedules, would of necessity be forced to ask Dad for no less than a fifty dollar bill in order to purchase the required supplies. This would mean that radio would be only within the reach of those who can afford Steinway pianos, Tiffany pearls and Rolls Royce motors. Take on the other hand the scheme advertisement of the cut rate radio dealer building a complete set, including tubes, batteries, cabinet and so forth "Radio for assembling installation for the remarkably low price of \$25." This price immediately brings radio within the grasp of the average American citizen and by so doing increases its popularity by more than one thousand per cent. In my opinion, radio is now an industry which is fast gaining a normal basis. The cut rates which have been worrying many of us are fast disappearing because of the fact that high manufacturing costs have been reduced and cut rates are no longer cut rates, but are merely fair and reasonable prices for the merchandise produced.

The retail stores which are now controlled by Harold M. Schwab, Inc., have been built up and are thriving on cut rate prices. By this I do not mean to imply that everything sold over the counter is sold at

prices which are inconsistent with the quality and workmanship of the product in question. Certain supplies which we handle are sold at very highest prices, because of the fact that their very appearance and their efficiency warrant the price asked for them. On the other hand, composition dials, which not many months ago listed at one dollar, are today sold for a quarter or less, because that is all they are worth. It has always been our policy at all times in our retail stores to make not only the merchandise we sell, but our stores and clerks as well, as attractive as possible to our customers. Our service is recognized in New York City as being of a standard excelled by none. This service includes not only advice on how to build sets, hook-ups, and the best instruments to use for efficiency, but also in loaning tools and other implements used in putting the set together to our patrons. Two of our stores contain complete work shops for our customers who may take off their coats, roll up their sleeves and go to work drilling their panels, soldering connections and testing their sets. This service is in the hands of an expert radiotrician who is competent to answer the most technical questions and to assist in all details pertaining to the building of the radio set of any type. That this service has been appreciated by our customers has been proven to us in more ways than one. It is a common occurrence for a man to walk into our store and inform us that his friend Mr. So and So, "the fellow that had so much trouble with the radio frequency set" sent him in for advice. In this event, we advise him to the best of our ability, telling him what parts he needs and what parts work most efficiently together.

In this connection, I might state that our men on the road continually write to inform us of the sales resistance they meet through buyers not familiar with radio, purchasing mer-

chandise for appearance alone, without considering quality. Every article sold by us through its jobbing department or in its retail stores has been thoroughly tested for efficiency as well as construction and for this reason we are able to sell our retail customers parts which work together in harmony. As an example of what would make up an inefficient set, let us consider a vario-coupler containing sixty turns on the rotor with twenty-five turns on the stator hooked up with two variometers, one with eighty turns on the rotor and the same number on the stator and the other with twenty turns on rotor and stator. Such a set as this was recently brought us for repair. Naturally the results obtained from it were negligible and it required an excessive amount of argument being used on the customer to convince him of the fact that such a set was not balanced and could, therefore, not possibly work efficiently. All radio dealers should bear in mind the fact that while it may be possible to make a sale of such parts as above mentioned to a customer once, there is not much chance of this man coming back or sending his friends back for a second dose of such treatment.

We have always found that by explaining to a customer our reason for suggesting this or that accessory for his set, we would not only make the sale, but would create his good will, which is so essential to every retail store. Another system of gaining customers has been employed with considerable success in our stores by giving a sales slip with each purchase, on the bottom of which is printed the following:

"We hereby guarantee the goods bought on this slip to be perfect and to give satisfaction. Should they be unsatisfactory, return this slip with goods within five days for refund if

(Continued on page 44)

# Dealers in Smaller Communities Disclose Unfair Tactics of Competition from Cities

## Dealer-Distributor Asserts Everybody Gets Discount Sheets

An Interview With  
W. L. HARRISON  
Lindsborg, Kansas

"Are jobbers and wholesalers to continue to mail discounts to every Tom, Dick and Harry in the country, whoever he may be?" is the question that W. L. Harrison, a dealer-distributor of Lindsborg, Kansas, asks. Mr. Harrison is head of the Central Kansas Radio Supply Company, and vice-president of the Kansas Radio League.

"Everyone from a school-boy to a grown-up," Mr. Harrison asserted in a recent interview with a representative of THE RADIO DEALER, "has some discount-sheet or other in his possession, whether or not he knows the difference between a variometer and a vario-coupler. Not only is it true, at least in the state of Kansas, that discount-sheets are everywhere, but it is also apparent that those least entitled to them are the ones that display them most proudly to their friends. The whole system is pernicious.

"This distribution of discount-rates to those not entitled to them is more general than we dealers are likely to imagine," Mr. Harrison went on to say. "The condition seems to result from a confusion of ideas as to what the manufacturer and jobber owe to the dealer, and what obligations they assume when they get a dealer to invest money in their products.

"I say that there is a confusion of ideas as to this responsibility. If there were not, who is it then that is furnishing radio fans with dealers' discount-sheets?"

"It is decidedly unfair that the average member of the buying public, who hasn't a cent invested in radio, should be given the identical privileges and discounts of the dealer in radio goods. The dealer, who must rely on a profitable re-sale of these goods for his living, is put at a disadvantage amounting to unfair competition by the promiscuous distribution of discount-rates among persons who are not in the radio business and never were. The dealer cannot sell at the price at which these favored individuals can buy because the dealer must include overhead expenses, interest on money invested and operating expenses in his selling price.

Mr. Harrison wished it to be made clear that he was not particularly attacking the mail order houses. "The mail order business," he said, "is a perfectly legitimate one and is nice clean competition compared with the illegitimate possessor of discount-sheets with whom the dealer must contend." The Kansas radio dealer said that he had in mind one St. Louis firm which mails a catalog and a discount sheet to anyone that writes for a catalog of prices.

"The success of radio," Mr. Harrison went on to say, "depends upon the brawn and brain effort that the dealer puts forth. He cannot exist without the co-operative ef-

*(Continued on page 35)*

## Rural Dealer Complains of Discounts to Consumer

By R. A. WHEELER  
President, Mining Equip. & Supply Co.  
Wilkes-Barre, Pa.

The writer has just finished reading the article in THE RADIO DEALER for February entitled "Cut Prices to Consumers Menace to Rural Dealers," written by H. S. Webster. Mr. Webster has hit a sore spot with all retail dealers whether functioning in rural or urban communities.

The writer personally spent considerable time in an attempt to arouse an interest in radio in the rural districts of Northeastern Pennsylvania, and was continually confronted with catalogs and widely distributed price lists of supposedly legitimate jobbers and distributors, wherein offers were made to consumers at discounts on a par with or better than we, as dealers, get.

One experience the writer had was a parallel to an incident quoted by Mr. Webster. A rural radio fan had purchased a very reputable set from a jobber in this state, from whom we too had purchased, and at the same cost as ours. He had not been successful in securing desired results. His set, however, was left in good working condition, and if any of his neighbors have since purchased they, too, have bought from the jobber.

Another instance was similar. A call was made on the owner of a set with a view to selling him a loud speaker. He had a loud speaker—one of the most widely advertised on the market. He expressed surprise at the discount which had been granted him. It was the same as our company received from the same house for a dozen of the same instruments.

Where are we and other dealers going to sell if our jobbers sell to customers of ours? What is this discount game?

The manufacturers, jobbers and distributors are retarding the proper distribution of radio materials by handling the business in this manner. It is creating a wrong impression on prospective buyers. One fan will buy—from a jobber or an honest and hard working dealer if the dealer meets the jobbers' price, while nine postpone buying until all prices are stabilized and uniform, on the basis of jobbers' prices to consumers. If the jobbers' prices to consumers are normal selling prices the manufacturers ought to sell direct to the dealer, so he can realize a little profit for his labors.

Our little part in the big radio game ahead is insignificant. It is probably needless to say, too, that we have blacklisted jobbers who are playing the double-faced game. If all dealers would do that, and reputable manufacturers would refuse to fill orders from the same jobbers they would soon be eliminated and the business stabilized, so that the margin of profit due each branch would be forthcoming.

## From the Editorial Viewpoint

### Radio Set Essential In Every Home In Land

New Yorkers who have radio sets will soon be enabled to listen in at meetings of the Board of Estimate and other municipal affairs. So will other radio set owners.

This is due to the fact that New York City, ever progressive in its municipal activities, is about to operate a broadcasting station to be located on city property at Elmhurst, but to be operated from New York City.

New York activities interest the entire world and this new manner of keeping in touch with municipal affairs alone will make for increased installation of high-grade radio sets in many homes.

Every business man, every respectable voter, is interested in the doings of the municipal managers, the elected servants of the people. Unfortunately all citizens cannot attend all public meetings. So the radio solves the problem. You sit at home and hear what your City Fathers are doing for you.

The United States Board of Education is now broadcasting regular special events and many cities are preparing to install radio broadcasting stations to be used in emergencies.

Obviously, the day is dawning when every business office, every shop, every public place—like hotels, clubs and restaurants, will be compelled to install a radio receiving set. Like the news ticker and the newspaper it is a thing here—for the public's use.

Broadcasting, to paraphrase the much abused Coueism, is getting better day by day in every radio broadcasting center, and the recent additions of interesting concerts and public events has taken radio out of the schoolboy amusement class and made a radio set an absolute necessity in every home, for education and for pleasure.

### Good-Will Really Not Property of Monopolists

Monopoly is not the basis of great merchandising success. The best business success is developed from good-will.

Some of the business adventurers in the radio industry—new to business ideas—already must have observed this fact. To business men who entered the radio industry the value of good-will as against hopeful monopoly was apparent from the start.

These men, it is understandable, are opposed to the the-

ory of divine-right ownership propounded by some of the very early business houses in the radio industry.

Good-will means "bringing the customer back." That is one of the things some of the first commercially-minded radio enthusiasts overlooked. That is why they're joining the down-and-outs of the radio field. That is why some of the early business men are less important today than they were a few years back—when the radio industry was the commercial prize of a few so-called radio experts.

The real business men in the radio field today are spending money to create good-will. They know that good-will means giving service and giving value received for money. Good-will means public opinion. Without that no business can *succeed*—no matter how important its patents may seem to the non-thinking business executive.

Good-will business builders recognize the public. The public, after all, is the real judge, the one to place the laurel wreath of business success on the business adventurer's bank-roll.

There is no uncertainty about good-will. You cannot purchase it with mere money; you cannot achieve it by self praise; you cannot acquire it by wishing for it; you cannot control it by large representations.

To acquire good-will you must make good to your public and if that public is the radio industry you have a plain course—if you're a manufacturer—and that course, the line of least resistance, is to produce standardized apparatus at prices that are based upon production costs and you are expected to extend service to your jobber and retailer.

### Divine Right Folks Have No Business Observation

It may interest the several radio manufacturing concerns who, in days not far distant, elected to assume a divine-right theory anent the selling of radio apparatus, that there are in New York City about two hundred and fifty radio retailers.

This 250 total means stores selling radio equipment, exclusively (90 per cent of these stores were not in business two years back).

Brooklyn and other sections of New York City have not over fifty exclusive radio stores.

These figures confound some of the divine-right folks, the folks who declare—by insidious whispers—that the radio retailing *must* go to certain persons and yet it is known these divine-right folks make every effort to sell their wares to the new crop of radio retailers developed recently.

In addition to the three hundred radio retailers in greater New York City there are radio departments in most of the big department stores, and the red-front chain systems sell radio parts. Some phonograph dealers sell sets, as

do a few piano shops and quite a few electrical stores sell radio parts.

But, a careful survey of the New York City retail radio business, made by THE RADIO DEALER, indicates beyond a question of doubt that at least fifty per cent. of the radio business of the New York territory is being done by the three hundred exclusive radio retail stores of Greater New York.

This survey was made during the past two weeks.

A resume of the entire circulation of THE RADIO DEALER indicates that the radio industry—retail and wholesale—is in the hands of radio dealers to the extent of 39 per cent. throughout the country.

The percentages of the radio industry are as follows:

	Per Cent
Exclusively radio .....	.3883 $\frac{1}{3}$
Electrical .....	.2666 $\frac{2}{3}$
Hardware .....	.0650
Battery stations and garages having battery stations...	.0466 $\frac{2}{3}$
Department stores and dry goods companies .....	.0383 $\frac{1}{3}$
Phonograph .....	.0366 $\frac{2}{3}$
Lighting fixtures .....	.0166 $\frac{2}{3}$
Automotive parts and automobiles, no mention of battery service .....	.0333 $\frac{1}{3}$
Scientific instrument dealers and laboratories .....	.0216 $\frac{2}{3}$
Foreign and American buyers for export.....	.0216 $\frac{2}{3}$
Novelty shops .....	.0150
Music stores .....	.0116 $\frac{2}{3}$
Sporting goods shops .....	.0100
Drug stores .....	.0066 $\frac{2}{3}$
Telephone & Telegraph Co. ....	.0050
Toy shops .....	.0033 $\frac{1}{3}$
Tool shops; Butcher supply houses; Carpenters, Plumbers, Photographers supplies; Washing machine dealers, gasoline dealers, and jewelers .....	.0133 $\frac{1}{3}$
or .....	.0016 $\frac{2}{3}$
	each

These figures ought to be of interest to every advertiser in the radio industry.

### Build Good Sets Today And Your Future Is Certain

An old Arabian tale goes like this:

“A King saw a man planting date seeds. The King said: ‘My good man, it takes a date seed a long time to grow. You will not have fruit from your date seeds.’

“The man replied: ‘Our grandfathers planted date seeds and we eat the fruit from the trees. I plant for my grandchildren.’

“The King thought the answer such a good one that he gave the man five shekels.

“Then the man said: ‘See, I have fruit from my seeds already!’”

Some of our radio apparatus manufacturers might learn a lesson from the tale above narrated.

### A Year Full of Constructive Radio Progress

In the past twelve months the radio has seen tremendous progress made, in organization, in the improvement of broadcasting programs and above all in radio apparatus.

The big step was made when radio manufacturers came to the conclusion that radio was to be for the people, and not for a clique. The result was that those interested in the true destiny of radio set about to make it more accessible to the people.

Books were written on the “how” of radio, some good, some bad; newspapers began to conduct radio columns; dealers sprang up to bring radio before the eyes of the public; and above all, radio instruments were made more and more simple. Such is the history of one radio year.

There is still room for improvement. Many a crystal set now on the market is simple in operation, but the average citizen would never guess this from glancing at the instrument. Some of these sets look almost as complicated as a linotype machine or a duplex printing press; or grandmother’s recipe for making mince pie.

The reassuring fact, however, is that any new apparatus that comes on the radio market these days is likely to show some effort on the part of the manufacturer to eliminate unnecessary parts, to make the apparatus look neat and workmanlike and to make it appear simple. The up-to-date manufacturer of radio parts realizes that many potential customers are deterred from radio by the thought that it is too difficult for them, a prejudice probably entertained by the sight of intricate monstrosities in the neighborhood radio store. Simplified apparatus will do much to make radio even more popular in the year of progress that lies before us.

### Radio Is Ploughing Its Own Field

One indication that radio is sufficient unto itself to provide a system of exclusive radio stores the country over, is to be found in the forms of service provided by the radio dealer. Such innovations as tool-shops, which the radio retailer is fitting up for his customers, so that they may build, repair or change the hook-ups of their sets, are unknown to other forms of retail trade. The real radio dealer has sufficient to offer to warrant the exclusive patronage of his district in this one field—radio.

The firm and settled foundation of the retail radio trade, whose signs are everywhere evident, shows that the retailer has grasped the essential differences of his business and the possibilities which these differences offer for the development of trade. This means that the radio dealer is stronger now than ever to cope with the problems of seasonal changes and other fluctuations in demand. It also means that radio is ploughing its own field.

# Make Your Store the Center of Your District

## Expert Suggests that Attraction of Radio Offers Great Opportunity to Rural Dealer for Increasing Sales

By R. D. RIDLEY

The radio dealer in the small town has a great opportunity for making his store the radio center of his community and eventually the radio buying center of the same district. Indeed, by making the radio activities of his district revolve around his well-supplied store he is doing the most effective work in his power to reduce the attraction of the mail order house.

Let us admit from the start that the mail order house is the greatest rival of the rural radio dealer or any other retailer in a small community.

Among the attractive things about a mail order house that induce the prospective purchaser to do his shopping by mail is what is known as "prestige." The mail order house happens to be in a large city, therefore, the goods it handles must be the latest, of course. Besides, if a dress or parlor table comes from the City, it has about it an indefinable glamor which in other circumstances is called hallucination.

Then again, there is the element of fashion. The large cities are naturally supposed to be in touch with styles sooner than the rural communities. This may have been true years ago, before the days of the Rural Free Delivery and decent railway schedules. But not today.

And yet millions of dollars come pouring into the coffers of mail order houses from communities that have stores offering service and goods that are just as good. What is the rural dealer to do?

The rural dealer must give his community more than the mail order house. In the radio line, the rural radio dealer has a golden opportunity to keep the local trade strictly local. For he has service and the personal element to offer, which the most efficient mail order concern cannot supply.

The rural radio dealer can with ease become not only the centre of radio activity in his community but the centre of a great deal of the total amusement in his territory. And at little cost.

If it should become known that concerts may be heard every afternoon and evening at the store of J. Jones, radio dealer, the potential buyers of your community must become interested sooner or later. If it should become known that on Saturdays, when everybody more or less, is "off work," that your store is the auditorium where folks can hear people in New York, Pittsburgh, Los Angeles, Detroit, Fort Worth, or Toronto, or other places, it stands to reason that a great many people will make a beaten path-way to your door.

How can you make this known? By word of mouth, by prominent signs in your town and by newspaper advertising. Weekly newspaper advertising is cheap and, if properly done, is effective. In return for advertising in his columns, your newspaper proprietor will be only too glad to publish radio news of interest that you may furnish, or broadcasting programs a week in advance.

Once you have the crowds coming to listen, you can also have them coming to buy. You can make your retail radio store a radio service station.

The radio amateur, like his brother, the automobilist, has need for the service station. He is always wanting new parts, new accessories, new ideas, new hints. The logical place to obtain these is at the local radio dealer's. The thought of writing to the mail order house for advice does not enter his mind. Why, then, should he buy from the mail order house, if the parts he can get from the rural dealer are just as good and are sold at a price just as reasonable? The average American citizen is fair-minded, and if things are made clear to him, he will act accordingly. If he accepts your service, he cannot help but feel that he should also accept the obligation in turn of buying from you.

Making your radio store a service station means always being ready with advice as regards hook-ups and the like, when this advice is sought. It means having a sufficient stock of

standard radio goods always on hand. It also means being able to supply a part out of stock at twenty-four hours' notice. It may also mean having a small tool shop at the disposal of amateurs for the construction, repair and alteration of receiving sets. This extra service has been successfully adopted by a large eastern retailer. If it pays in the face of high rents for space in a large city, it should surely pay in a small town where the extra room entailed in the establishment of such a tool shop is not so expensive.

The rural retailer has just the same opportunity as the dealer in the larger cities to establish firm connections with the potential buying clientele through personal contacts. The popular dealer anywhere can successfully compete with the mail order houses. And the dealer may become popular through service.

The radio dealer in rural communities has the opportunity of making his store the centre of much of the community's activities, because of broadcasting. He can enlarge the scope of his work and the chances for trade by giving radio concerts in the school buildings or the town hall. He can develop prospects for further business by giving private demonstrations in the homes of his district. Starting first with the most prominent citizens, he can get them lined up for radio sets. Then the lesser lights in the community will follow.

There are many ways in which the radio dealer of the smaller communities can bring radio before the people both in summer and in winter—skating parties with music supplied by radio, dancing on the green with an orchestra a thousand miles away supplying the music—by radio! The opportunities for radio exploitation are limited only by one's imagination.

The dealer in the country should create the demand. Once this is done, he should see that he is the one to satisfy the demand, for it rightfully belongs to him.

## Stimulate Business with Magnavox Products

EVERY business built up on price considerations alone, is subject to disastrous competition from every other business in the same line so built.

The present need in Radio—as declared by far sighted merchants—is *confidence*; the one factor responsible for building really large and permanent retail stores.

Increase your Radio business with Magnavox Products—their value, worth and price are firmly established by continuous National Advertising; everywhere the name Magnavox has come to mean technical excellence, superior workmanship, and absolute dependability in daily use.

Moreover, Magnavox "selling helps" present the entire Radio proposition so attractively to the consumer, that their use by the merchant is a direct stimulus to business in all classes of Radio Supplies carried by him.

The advertisement shown on the right will be read by nearly seven millions of people this month—many of them your customers and those you want for customers. Such advertising can be made worth many dollars to you if you avail yourself of our selling assistance.



This publication offers useful selling suggestions.

Write us today for free copy of this publication THE MAGNAVOX, which explains our valuable "dealer service."



# This Combination Completes any RADIO RECEIVING SET

Whether placed in the average living room or large dance hall, Magnavox Radio floods the desired area with clear, resonant music or speech—its volume perfectly controlled from the Magnavox Power Amplifier constructed specially for it.

Combination R-3 Reproducer and 2 stage Power Amplifier (as illustrated).

R-2 Magnavox Reproducer with 18-inch horn: the utmost in amplifying power, for store demonstration, large audiences, dance halls, etc.

R-3 Magnavox Reproducer with 14-inch curvex horn: ideal for homes, offices, etc.

Model C Magnavox Power Amplifier insures getting the largest possible power input for your Magnavox Reproducer . . . 2 and 3 stage etc.

Magnavox Products can be had of good dealers everywhere

The Magnavox Co., Oakland, California

New York: 370 Seventh Avenue

Write for booklet illustrating and describing the

# MAGNAVOX Radio



# What the Manufacturers Are Doing

## New Amrad Radio Frequency Receivers

Three types of Radio Frequency Receivers of new design are now being offered the retail trade by the American Radio and Research Corporation (Amrad, Medford Hillside, Mass.)



Amrad Radio Frequency Receiver 3500. Rated receiving range, 1,000 miles and up. Wave length range, 200 to 500 meters

These are said to be Long Distance Receivers, capable of receiving 1,000 miles or more.

All three designs incorporate radio frequency amplification, the newest form of amplification, known to exist for a long time, but only recently made practical for general use.

Simplicity of operation was the main goal in the design of these sets with the result, it is said, that tuning is from 30 to 50% quicker and easier than is possible with regeneration, and that both tone volume and purity have been improved.

All sets are encased in solid mahogany cabinets.

Receiver 3500 consists of Broadcast Tuner 3475 and Detector 2-Stage Amplifier 2634, assembled



Close-up of Amrad Vernier Potentiometer incorporated in both Radio Frequency Receivers, illustrated above

together as a unit by means of polished aluminum strips. Overall dimensions are 15" x 10 $\frac{1}{4}$ " x 7 $\frac{1}{4}$ ". The Broadcast Tuner is the double circuit type providing a range of wave length of 200 to 500 meters, which may be raised to 3,000 meters by the addition of adjustable loading coils.

This equipment is particularly suitable for installation in the homes of city residents, as the design affords a high degree of selectivity which enables the operator to separate more readily the broadcasting of conflicting stations. That is to say, its adjustment is "sharp," so that incoming broadcasts on very slightly different wave lengths may be tuned in or eliminated as desired. Users, it is said, are able to tune out local broadcasting and hear distant stations — something greatly desired by the radio enthusiasts.

Amrad Receiver 3380 is similar in appearance, but is



Amrad Radio Frequency Receiver 3380. Rated receiving range, 1,000 miles and up. Wave length range, 180 to 3,400 meters

more particularly adapted to rural conditions where broadcasting stations are not close by the user, and where reception of stations issuing information of special interest to rural residents on the longer wave lengths is more likely to be desired. Its range is 180 to 3400 meters. It is a single circuit type of receiver, and therefore easier to tune than Receiver 3500, although this difference is considerably mitigated by the fact that in the receiver described above, tuning is normally limited to 200 and 500 meters, whereas in Receiver 3380, much wider range of wave length is provided.

A very exact regulation of tone intensity and purity is provided by the Vernier potentiometer, incorporated in both sets. This potentiometer is a new wrinkle controlled by a knob geared to the potentiometer shaft in a ratio of 1 to 4.6, thus insuring extreme fineness in adjustment.

Receiver 3590 is somewhat smaller than the above sets, overall dimensions measuring 10" x 10" x 7 $\frac{1}{4}$ ". Receiving range is about the same — 1,000 miles and up. It is a single circuit type of receiver, consisting of Crystal Receiver 2575, VT 1-stage Amplifier 2766 and Radio-Audio Amplifier 3570, thus combining two stages of audio with one stage of Radio Amplification. This receiver has a wave length range of 175 to 675 meters, which may be stepped up by adding an adjustable load coil. The cam switch enables the operator to use either straight audio amplification, or both audio and radio amplification.

In all three receivers, the famous Amrad basketball variometer with its patented "wavy-weave" windings, is incorporated as also the well-known Amrad Ampliformers and Radio-formers.

## Makers Evolve Dealer Aids

There has been great activity recently among radio manufacturers all over the country to provide merchandising helps to dealers handling their products. Among these aids are sets of circular letters, upon which the dealer can place his imprint, attractive display cut outs, miniature models of receiving sets, and monthly or weekly periodicals full of suggestions for increasing radio sales.

## New Moon Receiving Set

A new receiving set, the invention of Dr. Franklin Leroy Satterlee, and known as the Model C-1, has been offered to the trade by the Moon Radio Corp., 12 Diagonal Street, Long

*(Continued on page 29)*



Model C-1.—Satterlee Moon Set

*Just  
off the  
Press*

THE  
**RADIO  
CONSTRUCTOR**

*List  
25  
Cents*

VOL. 1-No. 2

This Book contains, in picture drawings, the most popular hook-ups as determined by a recent research of the trade. They are thoroughly explained in accompanying text.

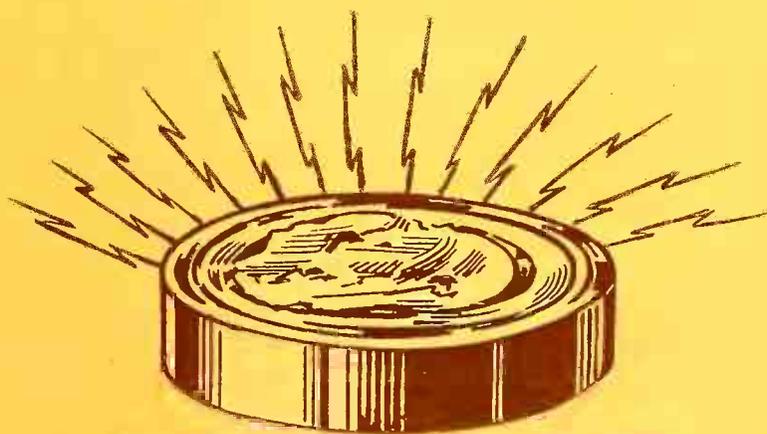
The popular FLEWELLING, REINARTZ and REFLEX circuits are among those clearly described.

Number one of this volume sold fast; number two should move like lightning. The Price is right; the Book is right; your Profit is right.

**Sell Them The Book and They  
Will Come Back for the Parts**

*Dealers Write For Sample Copy and Discounts*

**S. Newman & Co. Publishers 74 Dey St., New York, N. Y.**



**STANDARD BRAND**

**BETTER GRADE CRYSTALS**

UNCONDITIONALLY GUARANTEED

Manufactured  
by

**STANDARD MINERAL CO.**

216 MARKET ST.

NEWARK, N. J.

# Coming!

## An Announcement of Business Interest



Get ready for something of interest to every merchant selling radio supplies. We cannot divulge the significance of this announcement at the present time, but in order to learn about it before the next issue of the RADIO DEALER appears you can secure first hand information by sending in your name NOW.

In the meantime don't forget the exceptional possibilities selling

### ACE WIRELESS BATTERIES

The battery that has made dealers and radio "bugs" the best of friends.

## THE CARBON PRODUCTS CO.

Lancaster, Ohio

Manufacturers of  
Ace Dry Cells, Victor Telephone Cells, Ace Hot Spark Batteries, Ace Wireless Batteries, Ace Flashlights and Batteries, Ace Carbon Brushes and Carbon Specialties.



Use coupon for advance information

The Carbon Products Co.  
Lancaster, Ohio  
We want to know the good news. Write us direct.  
Name .....  
Street .....  
City .....  
State .....

# Crown Products for Radio Perfection



Licensed under De Forest Patents

List Price, \$5.00

## CROWN COIL MOUNTINGS

especially adapted for  
FLEWELLING CIRCUIT

Used by manufacturers as standard equipment on sets. For long and short wave reception. A few of its many special features:

1. Special Locking Device to keep the coil in place, thus preventing it from being thrown out of adjustment.
2. Special Adjustable Bearing feature.
3. Special constructed Calibrated Dial, showing the stations tuned.
4. Positive Connections on rear of blocks.
5. Complete with Flexible Leads.

### CROWN "WD 11"

The Transformer Designed Especially for use with "WD 11" Tubes  
The reputation gained by the Crown "WD 11" with jobbers, dealers and users is evidence

that there is no other transformer giving such reliable service in amplifying without distortion. The Crown "WD 11" is mechanically perfect, ruggedly constructed and priced right. It is a transformer all jobbers and dealers can back to the limit.

Audio Frequency.....\$5.00      Radio Frequency.....\$4.00

We also manufacture

23 PLATE VERNIER CONDENSERS.....\$5.50	BAKELITE MOULDED VARIOMETER..... \$8.00
43 PLATE VERNIER CONDENSERS..... 6.50	BAKELITE MOULDED VARIOCOUPLER..... 9.00

LIBERAL DISCOUNTS TO DEALERS



## CROWN RADIO MANUFACTURING CORPORATION

78 FIFTH AVENUE

NEW YORK CITY

## What the Manufacturers are Doing

(Continued from page 26)

Island City, N. Y. It is said that this set has made gratifying long distance receptions on a loud speaker without the use of an aerial.

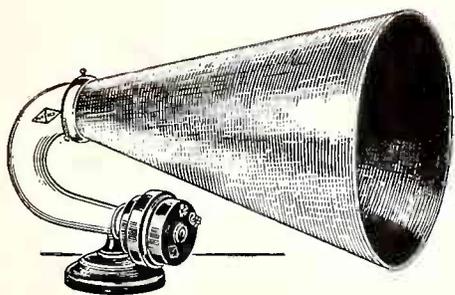
A switch mounted on the panel allows an aerial to be used when it is desired to get the more distant stations. Two variable condensers are used for very sharp and selective tuning, and a vernier rheostat is placed on the detector tube.

This set has a detector and two stages of audio frequency amplification are provided. It is mounted on a highly polished solid mahogany cabinet with compartments for "B" batteries, thus eliminating a lot of wiring as all "B" battery connections are made in the cabinet. It is stated by the manufacturers that nothing but the highest grade of materials and the best workmanship are put into these cabinets.

### Murdock Makes Speaker

The latest addition to the Murdock line of radio goods, manufactured by the William J. Murdock Company, Chelsea, Mass., is the Murdock Radio Loudspeaker.

This simple instrument, which is retailed at a reasonable price, is built



The New Murdock Speaker

on a new Murdock Loudspeaker phone unit. Wires or cord may be connected on the back of the phone unit, which is adjustable.

To adjust the phone unit, all that is necessary is to turn the phone cap, the unit being held in the other hand. When receiving local broadcasting programs, the loudspeaker may be operated from a tube set with amplification.

The phone unit is also sold separately.

Do You Need "A" Batteries, Bus Wire, Condensers, Detectors or anything else in the radio field?

ASK OUR SERVICE BUREAU.

## STANDARD RADIO HORNS

Are Fundamentally Right

That's Why They Sell

### ALSO MAKING

7-inch Bell, 19 inches High

Rubberoid finish only. Will take all makes of receivers. No air pocket. Designed to give proper amplification. Heavy material to avoid blast.

No. 17, price \$7.50

5-inch Bell, 14 inches High

Rubberoid finish only. Will take all makes of receivers. Specially designed for Radio purposes. Heavy brass. No vibration.

No. 15, price \$5.00

The line of Standard horns is now complete. The dealer who stocks Standards is thus able to supply correctly made horns for any Radio need—at popular prices.

We can furnish a single high-grade loud phone with cord—to fit any of these horns—to make a complete loud speaker.

Price, \$7.50 Extra

STANDARD METAL MFG. CO.

237 CHESTNUT ST., NEWARK, N. J.



14 Inch Bell, 24 Inches High  
Rubberoid finish only. Will take all makes of receivers. No air pocket. For use where extra large horns are desired. Heavy material. No vibration.

No. 114, price \$12.00



11 Inch Bell, 14 Inches High

Here's a new design in Radio Horns—will take all makes of receivers. Surprisingly clear reproduction. Grained Mahogany or Black Rubberoid Enamel finish.

Gem, price \$7.50

# PRICES REDUCED ON



**H**AVING had more than the anticipated success in the sale of our goods, we are pleased to inform the trade that the correspondingly larger output caused lower production cost, and consequently we are now in a position to lower our list prices.

**T**HIS reduction is for the United States only and will be effective after February 28th.

**The New Prices Are:**



**The Saturn  
Automatic  
Radio Plug**

The Plug with  
the RED SEAL

**\$1.25**

**The Saturn "PERFECT" Jack**



- No. 1. Single Circuit, Open . . \$0.50
- No. 2. Single Circuit, Closed. 0.55
- No. 3. Double Circuit, Closed 0.70
- No. 4. Single Filament Control . . . . . 0.75
- No. 5. Double Filament Control . . . . . 0.80

Now the best at the price  
of common goods

**The Saturn Mfg. & Sales Co., Inc.**  
Dept. D  
48 Beekman Street  
New York, N. Y.

## What the Manufacturers Are Doing

### Bristol Audiophone, Jr.

No separate storage battery is needed for the new loudspeaker, the Bristol Audiophone, Jr., which the Bristol Company, of Waterbury, Conn., recently placed on the market. In order to make this instrument suitable for all types of radio amplifier circuits, a transformer is mounted in the base. When connected to a third stage of amplification operating on 100 volts or over, the volume of sound is great enough to be easily heard in a room seating five hundred people. For smaller rooms, such as in private houses, good results are obtained from the Audiophone when connected with a two stage amplifier.

There is but one moving element in the entire loudspeaker, this being the armature, which is directly connected to the diaphragm by a multiplying lever. One end of the armature rocks on one pole piece of a strong permanent magnet, while the other end is in the field of the other pole piece of the magnet with a small air gap. The device is protected by two patents.

The whole instrument is of a com-

pact and artistic design, finished in bronze. The bell of the horn, eleven inches in diameter, is similar to the one on the Senior Audiophone, also made by the Bristol Company. The design of the bell is calculated to eliminate distortion.

### Radiola Co. Changes Name

By an amicable settlement the Radiola Wireless Corporation, 204 West 17th Street, has relinquished the use of the trade name "Radiola" in favor of the Radio Corporation of America. The company will henceforth be known as the Aerovox Wireless Corporation. The line of radio products manufactured by this company will be called the "Aerovox" line.

### Variadon—New Condenser

The Dubilier Variadon, a new form of condenser, is said to make possible the crowding of a very large capacity into a very small space. In place of air, mica is used as a dielectric, since the dielectric constant of this substance is very high, but one movable plate is necessary. By placing the plate close to the conducting surfaces, a condenser of .001 mfd. capacity is obtained, a capacity equal to the high-grade 43-plate condenser.

The Variadon is enclosed in a moulded case of high-grade material. By a slight adjustment it can be used on front or back of the panel. It is said to allow very sharp tuning without the need of a vernier. The Variadon is made by the Dubilier Condenser and Radio Corp., of 48 West Fourth St., New York City.



The Bristol Audiophone, Jr.



The Dubilier Variadon

## THE AUDIOPHONE LOUD SPEAKER METHOD OF RECEIVING Makes You Forget It is Radio-Phone



**AUDIOPHONE SR.**  
Horn 15 Inches Dia.  
Price \$40.00



**AUDIOPHONE JR.**  
Horn 11 Inches Dia.  
Price \$22.50



**ONE STAGE POWER AMPLIFIER**  
Price \$25.00

SO LIKE THE ORIGINAL VOICE AND ORCHESTRAL INSTRUMENTS

the tone is big in volume, rich, round and free from mechanical distortion.

The result of over six years' work on "Sound Reproduction" in the laboratories of The Bristol Company, a world known engineering firm, the Audiophone is not a temporary piece of equipment, but a permanent contribution to the Radio Field.

NO AUXILIARY BATTERIES are required for magnetizing.

About one watt is necessary to give the Audiophone full volume.

Most amplifiers are two stage and designed to give good response in head phones, but there is not sufficient power to operate loud speaker, except for small audiences. For this reason it is desirable to provide another stage of power amplification and Bristol's One Stage Power Amplifier is available which will give volume enough to be easily heard in a room seating 500 persons and over, when added to one or two stage amplifier.

Our representatives are located in all parts of the country. We can come to you with demonstration. Shall we send bulletins?

### THE BRISTOL COMPANY WATERBURY, CONN.



## MARCH SPECIALS FOR THE LIVE RADIO DEALER

### W. D. 11 SOCKETS

Bakelite Base, Bull Dog Grip Contacts, List \$1.00 ..... **35c**

### 3 1/4" DIAL, TAPERED KNOB

1/2" heavy Brass Bushing, Individually boxed, List 75c ..... **22c**

### SWITCH LEVER, TAPERED KNOB

Adjustable switch arm from 1 to 1 1/2 inches, List 40c ..... **12c**

### 3 PLATE VERNIER CONDENSER

Accurate spacing, Heavy Plates, List \$1.50 ..... **65c**

### VERNIER DIAL CONTROL

Makes vernier out of any condenser, etc. List 75c. .... **23c**

### TUBULAR GRID LEAK

1/2 to 5 Megohms. Fits any standard Base. List 65c. .... **20c**

### GRID LEAK BASE

For standard size leaks. High polished base. List 60c. .... **22 1/2c**

### VARIABLE GRID LEAK

Very accurate values 1/2 to 3 1/2 Megohms, .... **33c**

**ABOVE SPECIALS FOR MONTH OF MARCH ONLY**  
All prices NET CASH, F.O.B. New York in lots of 50 and more

IS YOUR NAME ON OUR MAILING LIST?

## HAROLD M. SCHWAB, Inc.

419 WEST 42nd STREET

NEW YORK, N. Y.



## There Is Only ONE Homcharger

Beware of low priced, inefficient imitations. designed primarily to "cash in" on the HOMCHARGER'S unprecedented popularity.

Don't be misled by long discounts, and low prices. Get behind a battery charger of established prestige and proven performance—one that will net you a generous profit—one that is backed by a REAL advertising campaign and dealer co-operation "to the limit."

### THE HOMCHARGER

is such a product—over 90,000 now in use—the *most attractive merchandising proposition* in the entire radio field. The only rectifier on the market embodying these NECESSARY features:

- 1—SELF-POLARIZING
- 2—HIGH CHARGING RATE
- 3—APPROVED BY UNDERWRITERS

*Retail Price \$18.50*  
complete with Ammeter, etc.

See your jobber or write us direct for our proposition in detail.

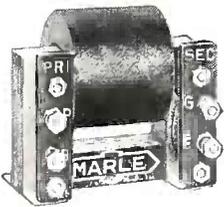
**DEALERS:** Increase your profits and completely satisfy your customers by selling a HOMCHARGER with every Radio Set.

**THE AUTOMATIC ELECTRICAL DEVICES CO.**  
144 West Third Street, Cincinnati, Ohio

LARGEST MANUFACTURERS OF VIBRATING RECTIFIERS IN THE WORLD

# MARLE

## AUDIO FREQUENCY



TYPE A4  
RATIO 3 3/4 to 1  
LIST PRICE \$3.75  
BLACK TERMINAL  
BOARD

## RADIO FREQUENCY



TYPE R1  
LIST PRICE, \$4.00

## AUDIO FREQUENCY



TYPE A6  
RATIO 5 to 1  
LIST PRICE, \$4.25  
RED TERMINAL  
BOARD

# TRANSFORMERS

SUPERIOR QUALITY TRANSFORMERS USED AND  
RECOMMENDED BY LEADING REPUTABLE  
MANUFACTURERS OF RADIO APPARATUS

MANUFACTURED BY

MARLE ENGINEERING CO., Orange, N. J.

## Dangers of Monopoly Shown in Germany

Writer Demonstrates Disastrous  
Effect Upon Broadcasting

By H. JAEGER

Of Jaeger & Co., Berlin, Germany  
(Translation by N. B. Zimmerman)

Competition is the source of all progress and all effort. A state whose future development is going to be branded by reconstruction has therefore every reason for encouraging rivalry to the best of its ability, and if that state is among the first, then this competition mobilizes productive activity and forces it to the highest achievements. Monopoly, however, means the end of all competition. It should step into an industry only when the need makes it absolutely necessary and entirely imperative.

The "splendid isolation" which has once already proved so disastrous to Germany now seems about to become an actuality in another sphere. Post and telegraph have for a long time been a monopoly of the German Government. It was a natural result that the control of wireless dispatches was commanded by this monopoly. In this respect other lands have done exactly this same thing. But the development of radio advanced. It succeeded in creating a wireless system which could broadcast speeches, songs and other kinds of music; yes, even whole operas. With this, new possibilities in radio development as well as in the industry presented themselves. These possibilities had to be employed to aid production according to the need of the day. Monopolization could only harm them.

Proceeding from this point of view, countries other than Germany perceived a division in radio activities. Radio telegraphy remained a state monopoly, divided among the organizations with a government concession. All the remaining activities of radio development were granted freely to all; in some countries in their entirety, in others with certain slight restrictions.

This was done in such a way that certain wave lengths were reserved for radio telegraphy and were not to be used by private sources. Other wave lengths are free. Their use is open to everybody.

The fruitful and stirring results of this were demonstrated immediately. If anyone opens a newspaper or periodical from countries other than Germany, where there are no restrictions upon the transmitting of speeches, music, sermons, etc., he im-

mediately finds evidences of a mighty advance in radio. This is patent in America. And the same condition is fast developing in Holland, where the newspapers and magazines carry pages of advertisements of radio manufacturers and dealers of apparatus of varied kinds for use in the home, hall or assembly place.

But in Germany! Mark the difference. No one is allowed to erect a sending station, be it ever so small. No one is allowed to operate a receiving set under penalty of being punished by the Government. While in other countries an unparalleled development of radio has taken place, a studio organization has been formed in Germany which, in co-operation with post office directors, will make a trial in ten cities to find out with what acclaim the broadcasting of speeches, etc., will be received by the people.

For one hour every evening an orchestra concert or speech is to be heard. Whoever wants to hear this will have to make an application to the post office, upon which he will receive a sealed set which will make reception possible.

The development of the radio in Germany will undoubtedly suffer if operated on the above plan, since only a small part of the people will have the time or the inclination to listen-in for just an hour to the speeches delivered under governmental limitations. Furthermore, even for the best broadcasting there will only be a small specified group under this plan. Others will want to hear something else.

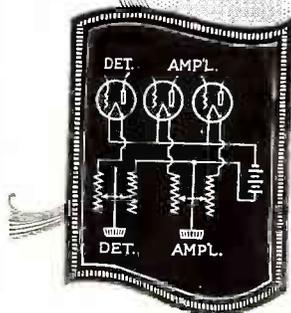
Matches and alcoholic liquors can be monopolized by the state, but not artistic and the finer activities of life. These must be free and they must remain so. But it needs no further proof that through this state monopoly of wireless the technical development of radio is also checked. Through this governmental restriction competition between individual factories is obviously suppressed. Original production is restricted and advantage created for foreign electrical development. Furthermore, through this monopoly valuable avenues of experimentation and research are closed to German engineers and electrical craftsmen, as well as to mere amateur radio enthusiasts who have helped to develop radio in the United States, for example.

*How the monopoly of broadcasting by a state affects the development of radio is indicated in the preceding article, written by an active German radio man. The conclusions drawn, after reading this statement, are that monopoly, whether it be a state monopoly, or that of a private corporation, harms broadcasting and injures radio. It should be understood that in the article the viewpoint of a German business man is expressed. THE RADIO DEALER assumes no responsibility other than for the translation.*

# A Big Stride forward

## The Autostat

### A Super Rheostat



THE AUTOSTAT presents an entirely new principle in filament rheostat construction and radio takes another **BIG** step forward.

No longer is it necessary to turn a "hair's breadth" to tune in that *elusive* station, for with the AUTOSTAT you can give the knob a substantial turn and get a *superfine* adjustment. No other rheostat to date possesses the necessary "fineness" of adjustment to eliminate interference and "tube howls" **under all conditions**. But the AUTOSTAT, with its micrometer adjustment, will positively give these much-sought-for results.

#### How It Works

Two parallel mounted resistance tubes are connected in series by a "micrometer-operated" slider—the length of wire in circuit depending upon the location of this movable slider. **Forty turns** of the AUTOSTAT knob are required to complete the variation from minimum to maximum resistance—against one-half to three turns on others.

This exclusive patented construction means:

1. One full turn of AUTOSTAT knob produces finer tuning than a "hair's breadth" turn on any other.
2. Economical—only two AUTOSTATS required for a three-bulb set.
3. Greatly increased receiving range and clearness of signals.
4. A uniform change in resistance with each turn of the AUTOSTAT knob.
5. Indestructible wire-wound fireproof lava resistance element.
6. Unqualifiedly guaranteed.

Popularly priced, **\$1.35**

#### Dealers

The AUTOSTAT will be nationally advertised. And all HOMCHARGER dealers and jobbers know that when we say "advertising" we will dominate the field and convert their stocks of AUTOSTATS into cash **QUICKLY** and **PROFITABLY**.

AUTOSTATS come in neat individual boxes, which, in turn, are packed in "business-getting" display cartons—with plenty of live dealer helps, and discounts that net real profits.

Order a carton of AUTOSTATS from your HOMCHARGER jobber **TODAY**—be the first in your locality to "cash in" on what is destined to be radio's fastest-selling filament rheostat. If he can't supply you, write us direct.

#### Jobbers

Write or wire for radio's most attractive merchandising proposition.

### THE AUTOMATIC ELECTRICAL DEVICES COMPANY

144 W. Third St., Cincinnati, Ohio: Builders of Precision Rheostats Since 1914



# Radio Trade Pictures

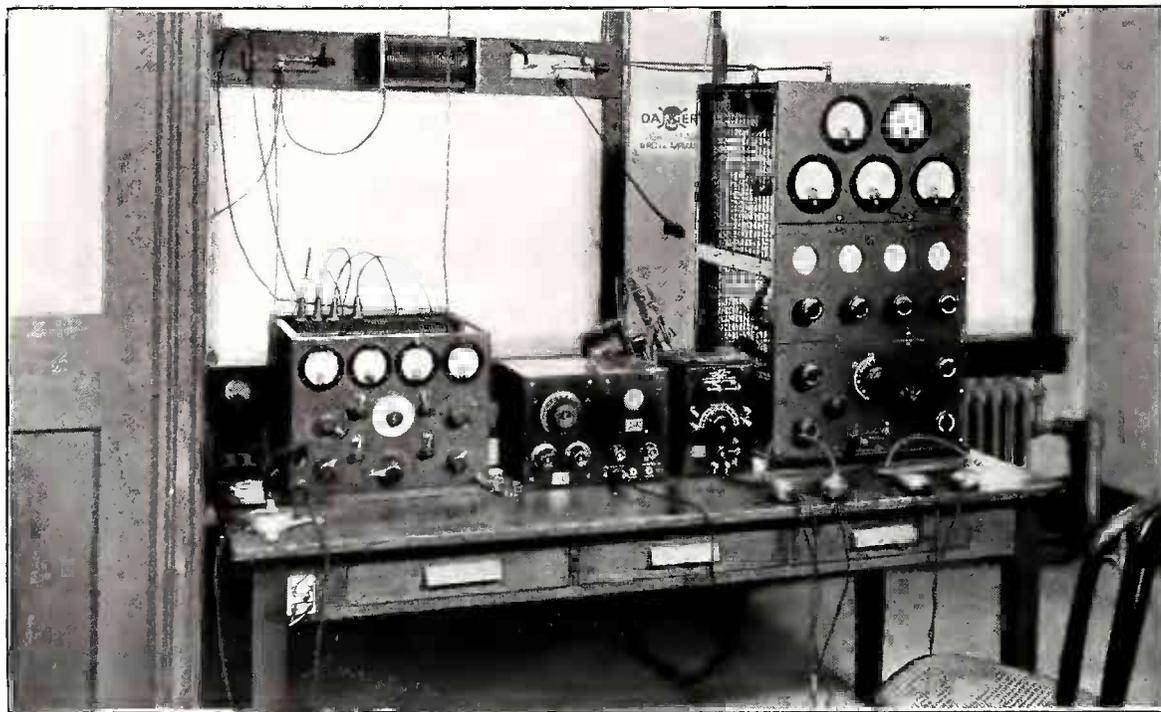



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Left—W. L. Harrison, of Lindsborg, Kansas, vice-president of the Kansas Radio League, who protests against unfair jobber competition on Page 21 of this issue

Right—R. A. Wheeler, President, Mining Equipment and Supply Company, Wilkes-Barre, Penna., who joins Mr. Harrison in his protest

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Station WHK, Cleveland, Ohio, operated by the Radiovox Company showing apparatus in transmission room  
Article on Page 43

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Two views in the factory where The Chicago Radio Laboratory manufactures Zenith Long Distance Equipment. Note the "progressive system" of manufacture

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## Everybody Gets Discounts

(Continued from page 21)

forts of the manufacturer and jobber. He must naturally look for protection from some source. If the manufacturer and jobber refuse to aid him, where can he turn?

"Last Winter when the art of radio was young, this dangerous policy of discounts to everybody was conducted on a very large scale. Today the situation is not much better.

"We in this country are not naturally pessimistic. We understand that protective rights must prevail. To put the radio industry on a sound basis we must have staunch co-operation and good will. The menace of the illegitimate discounteer is a reality, which the retailer, jobber and manufacturer have to face.

"Once the jobber or manufacturer realizes," Mr. Harrison stated in conclusion, "that the prosperity of the dealer means the prosperity of the radio industry and his own prosperity, this menace of indiscriminate discounts will be put to flight."

### Garrick to Move April 1

R. R. Garrick, radio distributor of 126 North Redfield street, Philadelphia, Pa., announces that he will open new quarters in Beechwood, Delaware County, Pa., on April 1, to be known as the Garrick Radio Laboratories. Here the distribution of radio products will be continued and, in addition, the laboratories will be engaged in the manufacture of radio sets, as well as in research work.

The Garrick Radio Laboratories, as distributors, will represent the following concerns: Ajax Radio Corporation, Radio Engineering Co., Orange Research Laboratories and the Aerex Company. Further additions to the Garrick list will be announced at a later date.

### Crosley Welcomes Visit

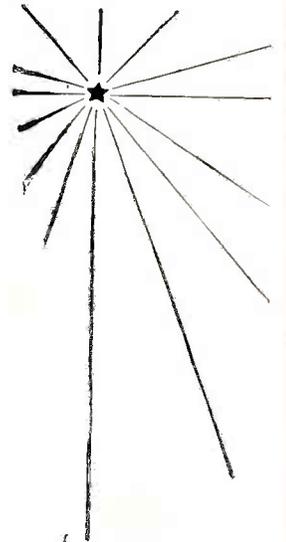
No visit to Cincinnati is complete without a tour of inspection of radio station WLW and the Crosley Manufacturing Company, says the *Crosley Weekly*. Everyone is cordially invited to see how this station, which has been heard from ocean to ocean and from Canada to Mexico, is operated. Visitors are welcome from eight until five daily and from eight until twelve on Saturday. You will see how the Crosley sets are made, tested and shipped to all parts of the world.

## Heard with A MU-RAD Receiver

### And A 2 Foot Loop Aerial



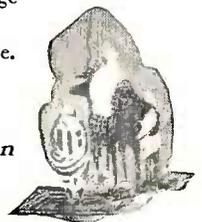
(The MA-13)



The New  
Star in  
the Radio  
World

They copied all they could copy,  
But they could not copy our mind;  
We left them tearing and swearing  
A thousand miles behind.

—Kipling.



From <u>NEW YORK</u>	From <u>DETROIT</u>	From <u>CLEVELAND</u>
Davenport 830 Miles	Fort Worth 1092 Miles	Fort Worth 1050 Miles
Kansas City 1040 Miles	Havana 1680 Miles	Denver 1200 Miles
Fort Worth 1285 Miles	Calgary 1667 Miles	Salt Lake City 1530 Miles
Havana 1567 Miles	Porto Rico 2036 Miles	Havana 1671 Miles
	San Diego 2070 Miles	San Francisco 2180 Miles
From <u>ST. LOUIS</u>	From <u>CHICAGO</u>	
Manitoba 900 Miles	Los Angeles 2070 Miles	Havana 1621 Miles
Montreal 1000 Miles	San Francisco 2210 Miles	Los Angeles 1840 Miles
San Francisco 1820 Miles		San Francisco 1955 Miles
Honolulu 4278 Miles		

### Why MU-RAD Excels

1. Unequaled Sensitivity—Exceeds the sensitivity of the average set many times. The above record demonstrates this.
2. Fine Selectivity—Permits differentiation of stations 1% off tune.
3. Simple Operation—All tuning can be done with one hand.
4. 1,000 Mile Reception—Guarantee goes with every set.
5. Distinctive Appearance—Solid mahogany cabinet, *Radion* panel, highly polished.

#### Reasons for Selling MU-RAD Sets

Every one of these advantages makes it easier for you to sell MU-RAD apparatus.

The great distance records of MU-RAD sets are interesting your customers.

MU-RAD advertising has already introduced these sets to the whole country.

Write for Our Interesting Proposition

**MU-RAD Laboratories, Inc.**

800 Fifth Avenue Asbury Park, N. J.

Two Types MU-RAD SETS	
Type MA-12 3-Stage R-F and Detector	\$128
Type MA-13 3-Stage R-F. Detector & 2 Stages A.F.	\$160

## PANELS

### BAKELITE—DILECTO

Standard sizes — Special sizes — Sheet stock —  
Machined and finished — Immediate delivery.

**STANDARD WIRELESS PANEL CO.**

49 MECHANIC ST., NEWARK, N. J.

Market 7308

## THE PORTABLOOP'S THE THING



FORGET ABOUT STATIC  
WITH THE

# Eagle Portabloop and Radio Frequency

You Can Make  
Radio Into a  
Summer Sport

Be Prepared for the  
Spring and Summer  
Rush

Order Now



210 Central Avenue

### Melco Radio Receiver

The Melco receiver, made by the Mortimer Radio Corp., of 114 Fulton St., New York, has two tuned circuits with variable magnetic coupling, similar to the commercial and naval receiving sets. It is designed to cover the amateur and broadcasting waves efficiently and with high selectivity on the average small outdoor antenna.

The radio waves are tuned in the antenna circuit by a tapped inductance having switches for broad and fine tuning. The resulting electric oscillations are magnetically transferred to a cylindrical coil wound with Litz and tuned by a variable condenser. This closed tuned circuit has extremely low damping and tunes quite sharply.

Both circuits tune from 165 to 600 meters and when loosely coupled give high selectivity and loudest signals. Coupling control is effected by rotation of the Litz wound coil in the magnetic field of the antenna load coil. The coupling variation is sharp and clear from zero to maximum. Placing the Litz coil at the ground end of the antenna coil has reduced the disturbing influences of capacitive coupling so that no low frequency noises are carried over from the antenna to the tuned secondary.

The radio oscillations are detected in the tuned secondary by an audion with condenser and resistance leak in the grid circuit. Stations within a 75-mile radius may be heard directly in the head phones with fair strength, the makers claim. More distant stations may be heard by amplifying the detector output in a Melco two stage audio frequency amplifier made for this set.

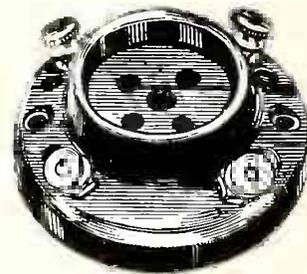
The Melco products are produced under the watchful guidance of Lester L. Jones, a radio engineer of many years' standing. The sales are handled by the Save Sales Co., 261 Broadway, New York City.

### Issue Effective List

An effective little catalog is now issued by Henry Paulson & Co., 37 South Wabash Avenue, Chicago, Ill., which lists many standard and nationally advertised radio parts and equipment. A feature of the publication is that each brand of apparatus listed is illustrated, so that the appearance and quality of each instrument is quickly perceived.

## MANUFACTURERS JOBBER and DISTRIBUTERS

### SOCKETS (HERCULES PRODUCTS)



List Price, \$1.00

Discounts 50 to 80%

Moulded of highest heat resistance compound

Phosphor bronze springs that give perfect contact

All screws and nuts are brass nickel plated

Highly polished

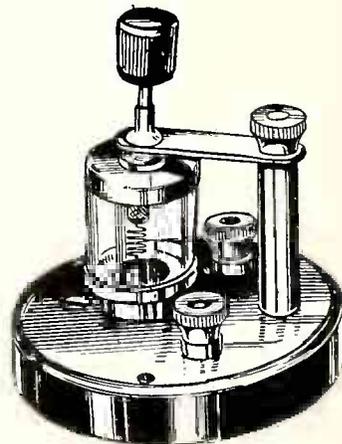
### RADIO PARTS

Dials, Detectors, Insulators, Telephone Plugs, Switch Levers, Rheostats, Rheostats with Dials, Potentiometers

Composition Initialed and Metal Binding Posts

Series Parallel and Vernier Control Switch Levers

### ENCLOSED GLASS DETECTOR



List Price, \$2.00

Discounts 50 to 80%

Catalog on Request

Spee Dee Specialty Co.  
271 Canal St., New York, N. Y.

World's Greatest Headset  
*Original*  
**Nathaniel Baldwin Type C**  
*With*  
**Sheltone Loud Speaker**

This complete outfit positively makes a most wonderful Loud Speaker.

In actual tests by experts they all agree that its tone is mellow, natural and clear.

Headset can be used in regular way with headband or on Loud Speaker.

Actual size 8½ inches high Beautifully Rubberized Finish.



**Regular Price**  
**Baldwin Phone.....\$12.00**  
**Sheltone Loud**  
**Speaker ..... 5.00**

Phones not sold without loud speakers.

Live dealers, here is the quick quality seller.

Order now. Immediate delivery

Thousands being sold  
 Nationally advertised

**Special Price, complete outfit, \$16.00**

*Dealers Discount 40%*

**THE SHELTONE COMPANY**  
 70 Halsey Street Newark, N. J.

## THE PERFECT WD-11 BATTERY ONE THOUSAND HOURS OPERATION WITHOUT BATTERY ATTENTION

The Edison Radio Primary Battery supplies current for one, two or three WD-11 Tubes. When one tube is used the life is 1000 hours.

When the battery becomes exhausted it is renewed by simply replacing the elements and solution, and is then the same as new.



LIBERAL DISCOUNT TO THE TRADE

### THOMAS A. EDISON, INCORPORATED

Primary Battery Division

Bloomfield, N. J.

CHICAGO  
752 Peoples Gas Building

ST. LOUIS  
2044 Railway Exchange Building

SAN FRANCISCO  
1205 Hobart Bldg.

## RADIO MANUFACTURERS Attention! For Efficiency—

# SHAW

Moulded Insulation  
PRODUCTS

Moulded insulation to fit your every need Exactly. For we manufacture it according to *your own* specifications and moulds. That's the SHAW way. Try it—"for efficiency." We neither retail nor wholesale. We manufacture only. Submit your specifications for a SHAW estimate.

## SHAW INSULATOR COMPANY

Founded 1892

Henry M. Shaw, President

Frank H. Shaw, Vice President and Gen'l. Manager

150 COIT ST., IRVINGTON—NEWARK, N. J., U. S. A.

## The First Year

### A Record of Progress and Growth in the Radio Industry

With this issue THE RADIO DEALER closes its first year, having issued and regularly mailed twelve monthly editions of this paper.

THE RADIO DEALER is the first radio trade paper and has carried its constructive message to almost everyone in the radio industry.

THE RADIO DEALER points with pride to one thing particularly, and that is the establishment and maintenance of a one-price rule to all advertisers.

THE RADIO DEALER has held to the ideal of trade betterment and working toward that excellent ideal organized, for the trade, The Radio Trade Association.

THE RADIO DEALER has consistently declined to carry the advertisements of get-it-quick concerns and stock-promotion concerns. (There are such still in existence.)

THE RADIO DEALER has maintained a Service Bureau for the use of the trade and has consistently given public notice to every new thought in radio.

THE RADIO DEALER has refused to be subsidized, as certain persons know, and has consistently maintained that the radio industry is not a side-line proposition. To this viewpoint this paper has acquired the endorsement of numerous manufacturers.

THE RADIO DEALER has surveyed the entire land, from the radio standpoint of radio, and has published these reports for the benefit of the trade.

To our readers, THE RADIO DEALER extends its thanks.

THE PUBLISHER

### RADIO STOCKS

(Quotations as of February 24, 1923, furnished by Frank T. Stanton & Company, 35 Broad St., New York City, Specialists in Wireless Securities.)

Stock.	Bid.	Asked.
American Marconi Stamped..	5c	15c
American Marconi Unstamped	\$5	\$7
American Tel. & Tel.....	123	123½
Canadian Marconi .....	2½	3½
De Forest .....	7	10
English Marconi com.....	11	15
English Marconi pfd.....	11½	15½
Federal Tel., Calif.....	5	6
General Electric .....	185½	186
Mackay Company com.....	115	116
Marconi Int. Marine .....	8	10
Radio Corporation com.....	3½	3½
Radio Corporation pfd.....	3½	3¼
Spanish Marconi .....	1	3
Western Union .....	117	117½
Westinghouse E. & M.....	64½	65

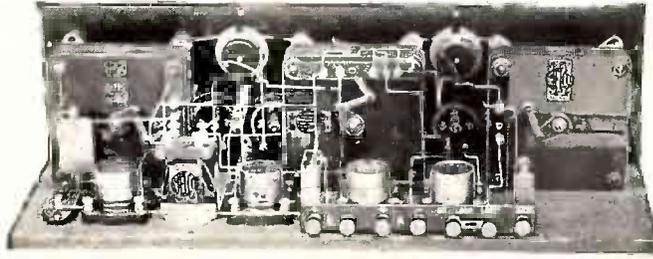
# MELCO

## SUPREME



**Sold by  
Hundreds  
of Live  
Radio Dealers**

Only  
**\$125**



The "Melco Supreme" Radio Frequency Amplifying Receiver can be used with indoor or outdoor aerial, loop or lighting plug. Operation is simplicity itself. Covers all broadcasting ranges from 175 to 500 meters wave length. A new departure in radio, non-reflex, non-regenerative, tuned radio-frequency.

Amplification is extremely high per stage without the slightest loss of tone quality. Neither distorts the wave nor interferes with other receivers. Single tuning adjustments assure greatest degree of program selectivity and most satisfactory long distance receiving is permitted by this new system.

We also manufacture a complete line of standard parts, including sockets, condensers, audio and frequency transformers, variocouplers, inductance switches, rheostats, potentiometers, etc.

**DEALERS:** Wire or write to any of our offices below for Booklets 1001 and 1002, prices, discounts and full particulars about our proposition.

**MORTIMER RADIO CORP.**  
114-116 FULTON STREET, NEW YORK

Huntington, W. Va. 1028 Fourth Ave.	Philadelphia, Pa. 636 Victory Bldg.	Pittsburgh, Pa. 704 Granite Bldg.
Atlanta, Ga. Flatiron Bldg.	San Francisco, Cal. 709 Mission St.	St. Louis, Mo. 13 South 4th St.
Los Angeles, Cal., 337 South Western Ave.		

Exclusive Canadian Representative, Scott Bros., Ltd., 332 St. Catherine St. West, Montreal, Que.

IT HAS STOOD THE TEST OF  
TIME AND SURVIVED

## R. R. ANCHOR

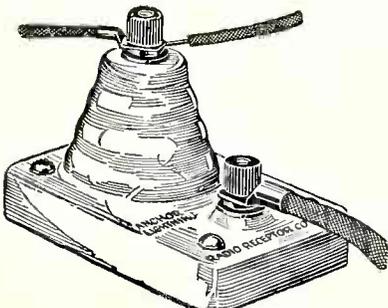
LIGHTNING PROTECTOR

List Price, \$1.50

For indoor or outdoor use National Board  
Fire Underwriters

Attractive Proposition to Dealers and Jobbers

**Radio Accessories Co.**  
59 Bank St. New York





## UNION RADIO PHONE TIP JACKS

(Pat. Applied For)

25 cents A PAIR

These convenient Phone Tip Jacks replace the old fashioned binding post. They assure positive contact and quick operation at all times. Accommodate any standard round phone tip and several sizes of bare wire. Great for W D II connections and coil mountings. Ideal for experimental circuits. Packed in

1/12 1/2 and 1 Gross  
Counter Display Cartons

We make a complete line of Variable Condensers, Rheostats, Tube Sockets, Condensite Dials, Tip Jacks, Receiving Sets and Two Step Amplifiers.

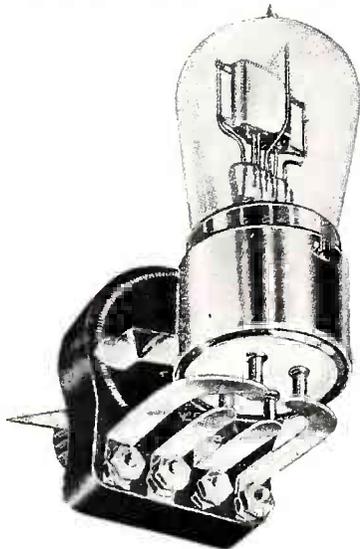
Write today for our liberal dealer proposition, samples and prices.

Catalogue K on request.

UNION RADIO CORPORATION  
200-MT PLEASANT AVENUE, NEWARK, N.J.  
NEW YORK OFFICE 116 WEST 32<sup>ND</sup> STREET.  
lllll

## SOCKET-RHEOSTAT

Registered U. S. Patent Office



Type A-5 ohms, suitable for detector bulb  
Type B-2 ohms, suitable for power bulb

**\$2.00**

TWO IN ONE. A socket and rheostat so combined as to form a single unit.

No more unnecessary leads between socket and rheostat. Just connect your leads to the four posts marked P F-F G and you are hooked up as far as the SOCKET-RHEOSTAT is concerned.

MANUFACTURED BY

**Ajax Radio Corporation**

Telephone: Bigelow 4097  
538 SOUTH 10th STREET  
NEWARK, N. J.

## Bright Future for Dealer Assured

(Continued from page 18)

the standard of broadcasting. And greater improvement means that more and more people will be won to radio.

"When will we reach the saturation point?"

In the first place there is no saturation point for radio sets any more than there has been a saturation point for automobiles. Far more people own automobiles today than the number who owned horses and carriages a generation ago! There are only about one million real radio sets in use in America today, and there are at least twenty million homes!

Every owner of a crystal set or a small home-made set is a potential buyer of a bigger and better bulb set, just as every Ford owner invariably graduates to a better and more expensive car. Every customer who bought a cheap radio set to start with can be sold a better machine. He is a potential buyer—even though he be unconscious of it.

Make a list of these previous purchasers. The next time they come into your store show them the merits of a better machine. Create a real desire for ownership and then follow the business getting slogan of the automobile industry, "Ask 'Em to Buy!" Dealers have been taking only the "cream" of the business as it has been thrust upon them. They have failed to make any concerted effort to secure the "milk"—which is the bulk of the business after all.

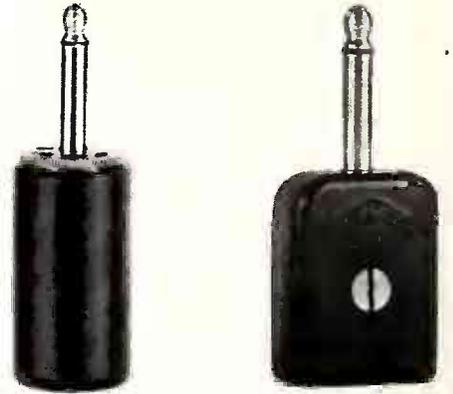
There are enough radio shops in the country. What is needed are better radio shops. Your real competitors are the stores that sell talking machines, and you must compete with them by setting as high or higher a standard than they set. Our competitors are not the merchants in the same industry, selling an article similar to what we are selling. Your real competitors are those who are endeavoring to induce the buyers to spend their money for something you do not sell.

Under the old conception of competition dealers in the same line of business believed that they had to fight one another. Under the new conception we know that the competition to be feared is not that of other individuals in the same line of business as ourselves, but the competition of other industries.

The buying public has just so much money to spend each year, sometimes more, sometimes less; but even in periods of business depression the total available for purchases of things

## PHONE PLUGS

Standard Type



35<sup>c</sup> each

22<sup>c</sup> each

in lots of 100 or more

The above plugs can be used with pin, spade, or plain wire ends.

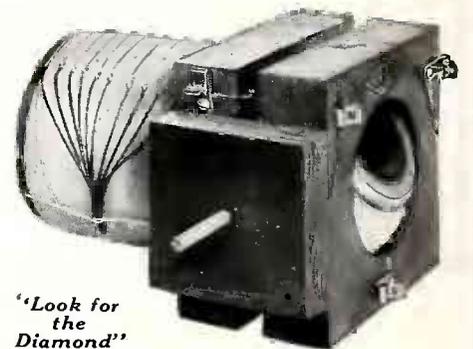
No soldering necessary

**S. S. NOVELTY CO.**

255 Bowery, New York, N. Y.

Tel. Orchard 8932

## FISCHER



"Look for  
the  
Diamond"

## Vario-Wave Tuner

(Flat and Bank Wound)

Affords a guaranteed range of  
200 to 3500 meters

Functions the same as a combination of Variometer, Variocoupler and Loading Coil. All three can be eliminated by its use.

**G. H. FISCHER & CO.**

317 Cypress Hills Road

GLENDALE, L. I., N. Y.

other than the bare necessities of life is enormous. The prosperity of the individual members of an industry depends not on how much business they can pull away from one another, but on how much of this big sum spent by the purchasing public they can attract to their own industry.

Let us make our stores more attractive and our service better, and, to use a popular phrase of the day, "day by day, in every way, business will be getting better and better."

### Amrad Has House Organ

The *Amrad Messenger* is the house organ and circular published by the American Radio and Research Corporation, Medford Hillside, Mass., "from time to time." This publication will devote itself to hints and information for the dealer. In the first issue the following bit of sound argument appeared:

"Many people are not buying radio today because they think revolutionary changes are coming in the equipment. To them radio is new — only a few months or a year old. They do not realize present apparatus is the result of seven years of development."

The *Amrad Messenger* will be looked forward to by radio dealers who are wise enough to enter their names on the subscription list.

### Magnavox Issues Organ

The first issue of the *Magnavox*, published by the Magnavox Company Oakland, California, and 370 Seventh Avenue, New York City, is a decided pace-maker for all the issues of this magazine that are to follow.

From the interesting two-colored cover to the very back page, this publication, which has the same dimensions as the *Saturday Evening Post*, is an interesting and informative effort.

The keynote of the first issue is Magnavox National Advertising and the radio dealer's opportunity. This idea is carried out in every page. The next issue is to deal with newspaper advertising and dealer helps. Copies may be had by radio dealers on application to the Magnavox Company.

Among the features of the first issue is an article on the superior construction of the Magnavox loud speaker. There is also a short feature on the "fulfillment of three great prophecies." Every item in the publication is full of "human interest."

## ATTENTION! RADIO DEALER

THE TREMENDOUS DEMAND FOR

# EBY BINDING POSTS

IS GREATER TODAY THAN LAST SPRING



Commander



Ensign



Corporal



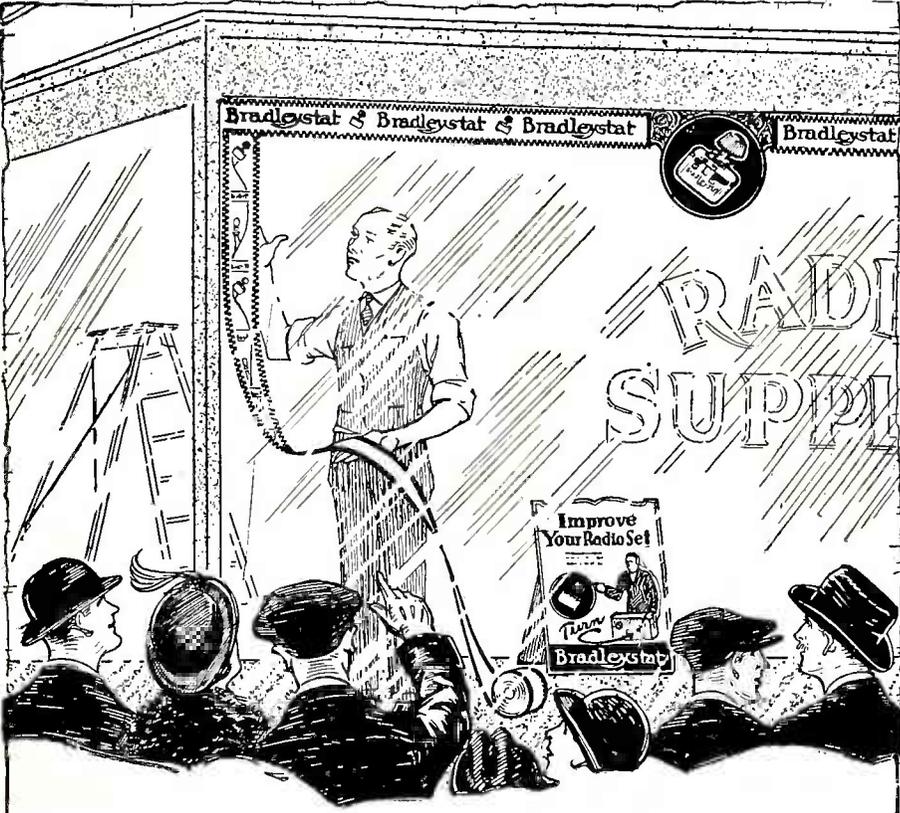
Sergeant

We anticipate a great volume of business during the coming Spring, and we request that you anticipate your orders through your nearest jobber at once.

There is an EBY jobber in or near your City, but if you are unable to procure our products, send us your order with your jobber's name and we will ship direct and bill you through him.

When placing orders with your jobber, don't fail to ask for a quantity of attractive EBY literature.

**THE H. H. EBY MFG. CO., PHILADELPHIA, PA.**



## Bradleystat Window Trim Is Ready for You

**THE NEW WINDOW TRIM** is an attractive border for your windows. It is printed in orange and black and offers an unlimited variety of borders. Feature the Bradleystat for one week. The sales will surprise you.

**THE NEW DEMONSTRATOR** is a striking six-color oil poster for your window and also for your counter. It is a live Bradleystat salesman because it gives the customer a chance to try the Bradleystat on the demonstrator.

**ACT NOW — USE THIS COUPON**

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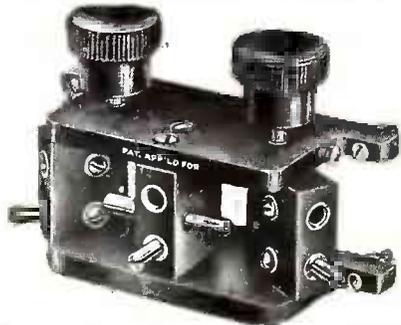
Allen-Bradley Co.
487 Clinton St., Milwaukee, Wis.

Send me your window trim so that I can feature the Bradleystat in my radio window. Send me suggestions for novel window effects.

---

**DISTANT STATIONS  
BROUGHT IN  
FOR LONG WAVE  
RECEPTION**

USE AMCO ADJUSTABLE, 1, 2  
AND 3 COIL MOUNTINGS



Licensed Under DeForest U. S. Patent,  
No. 1,365,170

- Triple Coil Mounting List \$5.00
- Double Coil Mounting List \$3.50
- Single Coil Mounting List \$0.50

Adjustable locking device, a patented feature, holds the coil firmly in place. Readily mounted on front of panel in any position.

Constructed of the highest grade insulating material; polished and attractively finished.

All metal parts heavily nickel plated  
**NOT A MOULDED AFFAIR**

**Astorloid Mfg. Co., Inc.**

Tel. Williamsburg 5104

416 Marcy Ave. Brooklyn, N. Y.

**RADIO DEALERS**

We are fully prepared to furnish you with Standard Radio Products at attractive discounts. Prompt deliveries and unlimited service.

**ELL ESS PRODUCTS**

*At Unusual Discounts*

Crystal Sets

K. D. Glass Crystal Detectors

Tubular Grid Leaks

ALL CAPACITIES

**DISTRIBUTORS**

FOR

Raven Radio, Inc.

Enco Electric Novelty Co.

Inter-Ocean Radio Corp.

Jaynxon Laboratories

*Also Other Standard Products*

WRITE, CALL OR PHONE

**ELL ESS RADIO  
EXCHANGE**

57 Dey St. New York, N. Y.

**Show in San Francisco**

A radio and electrical exposition will be held from April 3 to 8, inclusive, in the Exposition Auditorium, San Francisco, under the auspices of the American Radio Exposition Company of New York. This company managed the American Radio Exposition which was held in New York at the Grand Central Palace during Christmas week.

The San Francisco show has been endorsed by the Pacific Radio Trade Association, the San Francisco Electrical Development League, the Electrical Contractors & Dealers Association of San Francisco and the California State Association of Electrical Contractors and Dealers.

There will be special broadcasting features, and contests and prizes for radio amateurs.

**Free Report Cards Ready**

The Continental Radio and Electric Corporation, 15 Warren Street, New York City, is now ready to distribute free to dealers report postal cards for further distribution among their customers.

The average amateur who receives a long distance station is anxious to inform the station of the feat. These report cards make it easy for him. Space is allowed on these postal report cards for the name of the station, time and date heard, the name and address of the amateur and details of the receiving equipment. Room is given at the bottom of the postal for the imprint of the dealer.

These postals are expected to appeal strongly to the amateur, because of their convenience; to the broadcasting stations, because they are always anxious to hear the extent of their clientele; and to the dealer because they provide a pleasant method of publicity and an effective method, too, for the amateur will appreciate the service and come back for more cards and incidentally more radio parts.

**Urges Study**

Retailers should devote more time to a study of fundamental trade conditions that they may be able to buy more wisely, keep more complete records and to take advantage of research agencies to inform themselves of general business conditions and market fluctuations.—Professor Wesley C. Mitchell, Department of Economics, Columbia University.

Ask Our Service Bureau



**SHELSTONE**

Loud Speaker

Without phones

**\$5.00**



**W. D.  
SPECIAL**

Cash in on the big demand with this perfect amplifier transformer for use with W.D. 11 and all standard tubes.

*Extra Liberal Discounts*

List \$5—Dealer's Net \$2.75

lobbers, write for your price

**RADIO COURSES, Inc.**

552W Seventh Ave., N. Y. C.

PEN nsylvania 0574

**ADD-A-STEP**



**DETECTORS AND AMPLIFIERS**

LIST \$5.00 LIST \$9.50

Awarded Mail's Certificate of Excellence

See them at the RADIO FAIR

**ARROW RADIO CO.**

Manufacturers of Quality Plus  
Instruments

HACKENSACK NEW JERSEY

**QUEENS  
Vario Coupler**



**\$5.00**

**BIG DEMAND—BIG PROFITS!**

Wise dealers everywhere are cashing in on the huge demand for the nationally advertised QUEENS VARIOCOUPERS AND VARIOMETERS, because they realize that there are NONE BETTER MADE —THEY MAKE RADIO RECEPTION A PLEASURE—AND THEY BRING IN REAL PROFITS.

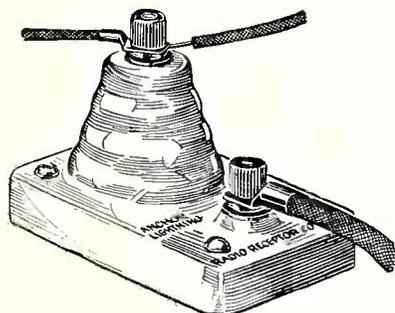
Order yours to-day—or send to us immediately for our attractive prices.

**QUEENS RADIO COMPANY, INC.**  
12-A Forest St. Winfield, L. I.

### Anchor Wins Approval

The idea is growing among radio users that some adequate protection should be made against lightning, no matter whether the underwriters or landlords require such protection, and that some adequate escape to the ground should be provided for the inevitable chance of a lightning flash. What is needed is a rugged device with plenty of current-carrying capacity, not a delicate or complicated device that the elements can easily destroy when used outdoors.

The Anchor lightning protector, made by the Radio Receptor Company of 59 Bank street, New York City, is said to answer all the requirements for a lightning protective device. It is designed to really hold the end of the antenna mechanically and electrically



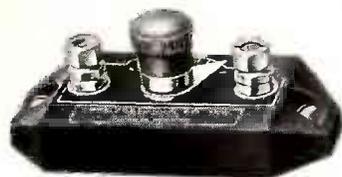
as securely as an anchor holds its cable.

The ground end does not require high insulation, so it is down on the base of the device, but the antenna terminal, a critical part of any protector, must be free from moisture or grounds. In the Anchor it is up in the air on a sort of pedestal, thus complying with the needs of an efficient device. Finally the makers claim that the Anchor maintains a free path to the ground at five hundred volts to satisfy national electric code standards.

### Eastern Radio Moves

The Eastern Radio Manufacturing Company, formerly of 65 West Broadway, New York City, have moved to larger quarters at 55 Warren street, where they have installed machinery and equipment to manufacture all types of couplers. Among their principal products are a long wave-coupler and special couplers for the wavelengths that at present do general broadcasting. The products bid fair to hasten the standardization of couplers both as to construction and price.

## Freshman Products—Accurate and Dependable



**"MICON"**  
Tested Mica  
Condensers

Size	Price
.00025	\$.35
.0005	.35
.001	.40
.002	.40
.0025	.50
.005	.75
.006	1.00
.01	1.50



### ANTENELLA

No antenna or aerial needed. Eliminates all the inconveniences in radio, operates from any light socket. Price only—

**\$2.00**

**CHAS. FRESHMAN COMPANY, Inc.**

106 Seventh Avenue, New York City  
(Note New Address)

**Dealers:** Discount 33 1/3% on all orders \$15.00 and over. We pay parcel post, express charges. Literature and display cards free on request.

### Variable Resistance Leak

With .00025 Mfd.  
Micon Condenser  
Combined

**\$1.00**

Without  
Condenser

**75c**

Unbroken range—Zero to 5 Megohms.  
Clarifies signals, lowers filament current, increases battery life, eliminates hissing.

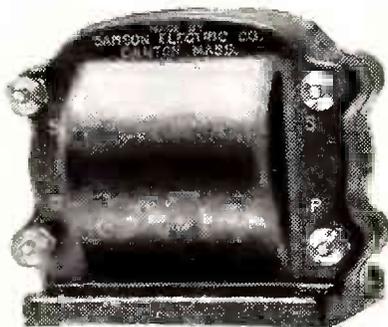


Assure absolute noiselessness—clarity of tone—accuracy—constant fixed capacity.

**.006 Micons and Variable Resistance Leaks, especially adapted for New Flewelling "SUPER" Circuit.**

## THE SAMSON ELECTRIC CO.

### ANNOUNCES



an advanced type of winding in use on their HW-A1 Transformer for audio frequency.

This winding is built up of disc shaped layers of coiled wire, and has no paper between layers.

This construction eliminates distributed capacity and permits a high ratio of turns, producing a signal 40% louder than the best of transformers using coils with paper between layers, and a tone as clear as if a detector alone were used.

Send for bulletin and trade prices

**SAMSON ELECTRIC CO.**

**CANTON, MASS.**

Manufacturers since 1882



**Pruden Reliable  
Radio Specialties  
for Good Results**

Dealers write today for  
our interesting proposition.

FREDERICK H. PRUDEN, Inc.  
993 Bergen Ave., Jersey City, N. J.

**MANUFACTURERS OF**

Receiving Sets Complete  
Unites Mounted and Unmounted  
Send for Description and Prices

**RADIO OUTFITTING CORP.**

Mfg. High Grade Radio Apparatus  
410-412 East 34th St. New York, N. Y.

**DIAMANT**

**VARIABLE CONDENSERS  
AND CRYSTAL DETECTORS**

Electrically and Mechanically Guaranteed

Diamant Tool & Mfg. Co., Inc.

93 Runyon Street Newark, N. J.

**WE WILL MAIL**

ONE  
VERNIER CONDENSER

for \$3.50 C.O.D.; Parcel Post Paid  
To any address outside of New Eng.

To introduce our line

**ELECTRIC PRODUCTS CO.**

11 Pemberton Sq. Boston

M-R FLEXIBLE VARNISHED TUBING  
THE GENUINE

**"SPAGHETTI"**  
TWO STYLES—BEST GRADES MADE—ALL  
SIZES—ALL COLORS

Varnishes, Waxes, Compounds, Papers, etc.

MITCHELL-RAND MFG. CO.  
14 VESEY STREET NEW YORK, N. Y.

**THE PARAMOUNT  
ENGRAVING MACHINE**

for Radio Panels

Greatest Production—Lowest in Price

PARAMOUNT MACHINE CO.

207 Market Street Newark, N. J.

Have Outlet For

**SURPLUS STOCKS  
Radio Supplies**

Price and Goods Must Be Right

P. D. Jackson, 1441 So. State, Chicago

**ATWATER KENT  
MIDWEST DISTRIBUTORS**

Immediate Deliveries

KRAMER RADIO CO.

4713 Sheridan Road, Chicago, Ill.

Jobbers Standard Lines

**PATENT**

your ideas. Protect your rights by U. S. and Foreign  
Patents and Trade-Marks. Moderate rates. CALL.  
WRITE or send us your invention.

Free booklet and inven-  
tion recording blank.

**FREE  
CONSULTATION**

Phone: Vanderbilt 7212

**FREE MANUFACTURERS  
PATENT CO., INC.**  
BOOK 520 FIFTH AVE  
NEW YORK

**"SAMCO" VARIABLE  
CONDENSERS**



11 Plate	.00025	M. F. Capac.	List	\$2.25
23 "	.0005	" "	" "	2.85
43 "	.001	" "	" "	4.50
63 "	.0015	" "	" "	7.50

Substantial Discounts to Dealers

**STANDARD APPLIANCE MFG. CORP.**  
428 EAST 71st STREET, N. Y. CITY

**Do Cut Prices Help  
Radio Trade?**

(Continued from page 20)

goods are in same condition as when bought.

"Save these coupons; \$10 worth of these coupons will be exchanged for one dollars' worth of Radio Supplies within three months of date hereon."

This sales slip accomplishes two purposes. In the first place it is evidence of the responsibility of the store in backing up to the last ditch the merchandise it sells. Further than this it tends to bring the customer back for other supplies, due to the fact that if he purchases ten dollars' worth within three months, he is entitled to one dollars' worth of merchandise without charge.

On the whole radio retailing, while not being the gold mine it was thought to be a year ago, it is now more or less on a sound basis. If the retailer will bear in mind the fact that he must give service in radio as well as sell merchandise, it will take him head and shoulders above his competitors in whatever locality he may be situated. The trouble so far with the radio industry has been the fact that so many knowing nothing about the game or its parts have entered the field blindly and are soon groping about in darkness trying to find the way out. Radio retailing must be handled not only by a man familiar with radio in a technical way in order to enable him to buy instruments which will work efficiently under normal conditions, but must also be in the care of a man capable of merchandising the articles once they are purchased. In fact, our success in supplying dealers throughout the country with efficient radio parts which they can market at prices which meet all competition in large cities, and small towns as well is largely due to the fact that our organization consists wholly of men, not only experienced in the technical side of the radio problem, but in the merchandising end as well. To come back to my first statements regarding price cutting, I would welcome correspondence on this subject from any source, inasmuch as it is one of great interest to me. It has caused considerable discussion in New York City among the retail dealers and I have as yet been unable to be convinced that my theory of putting radio into fifteen million homes at twenty-five dollars each will

**Gould**

**Radio "A" and "B" Batteries**

Write for Dealer Plan

Gould Storage Battery Co.

30 East 42d St., New York City

**KNOCK-DOWN RADIO RECEIVING SET**



Neatly packed in an attractive hinged cover box. Makes a wonderful display. A child can assemble this set. Practical and instructive. Complete instructions for assembly included.  
RETAIL PRICE, \$4.50.  
Liberal Discounts to Jobbers.  
(Established 1917)

CHAS. WINKLER, INC., 178 Emmett St., Newark N. J.

"Better Than The Best"

**AERIAL-A**

The Radio  
Tube Set



That  
Made Good  
in a Night

W.E. Supply & Service Corp. 18 Murray St., N.Y., U.S.A.

**CONQUEROR**

CUSTOM-BUILT  
ONE KNOB CONTROL

**\$115.00**

**RADIO**

WRITE FOR  
OUR DISCOUNT

RECEIVING SET

ARRANGEMENT

LEWIS & DeROY RADIO CORP.

560 Seventh Ave., New York City

**Radak**

Reg. U. S. Pat. Off.

**RELIABLE RADIO EQUIPMENT**  
made by America's oldest and largest manufacturers  
of radio equipment exclusively. Sold by the best  
electrical and radio dealers.

CLAPP - EASTHAM CO.

133 Main Street Cambridge, Mass.

Have You Our New Price List?

"EDGCO"  
RADIO  
PRODUCTS

Save money by our prices; save time  
by our prompt shipment. Successful  
dealers sell "EDGCO."

The EDW. J. GOETZ CO.

608 Race St., Cincinnati, O.

**CABINETS**

Write for quotations

MARVIN B. FALLGATTER

Waupaca, Wisconsin

**HAFNER FOR HYDROMETERS**

Guaranteed instruments to sell for 75c with  
a good profit margin for dealers. Ask your  
jobber or write us direct.

HAFNER MANUFACTURING CO.

3130 Carroll Ave., Chicago, Ill.

"Have a Hafner Handy"

Ask Our Service Bureau

**GREGG & COMPANY**

ENGINEERS

Radio Department

165 Broadway

New York

St. Louis, Mo.

Washington, D. C.

Newark, N. J.

Los Angeles, Cal.

Mexico City, Mexico

be better in the end than putting it into one million homes at one hundred dollars a piece. I do not doubt that this statement will bring forth emphatic denials from many sturdy and venerable distributors who still insist that the average dealer can exist on a discount of twenty-five per cent. It is my contention that the dealer deserves at least thirty-five per cent, if not forty per cent. or more on which to work. Now let the letters come and address them to me at 419 West Forty-second Street, New York City.

The Service Bureau of The Radio Dealer will be glad to help you find what you want to buy.

### Books for Dealer Distribution

A radio handbook that the radio dealer may distribute at nominal cost is being distributed by the Archway Book Store, Seattle, Washington. This book, "How to Make Vacuum Tube Receiving Sets," was written in detail the process of constructing vacuum tube receiving sets; also includes Armstrong super regenerative hookup, with a chapter devoted to the aerial and its installation. The book contains diagrams that are easily followed. The sets constructed by L. D. Brigham, and describes in following the plans in this book are said to be capable of receiving long distance up to 2000 miles.

The publishers have printed a few lines informing the reader where he may buy the necessary parts to build the sets and have reserved space for the dealer's name and address.

### Prefers Selling to the Small Retailer

A sales executive for a radio concern asserted recently that he had instructed his salesmen to make a 100 per cent. effort to sell to every small dealer and he declares if he had his way he would sell only to the small dealer.

"Give me the small dealer," he declares. "To begin with, he is not solicited by every radio manufacturer for business and because of this he is not likely to change lines overnight—like the big retailer.

"The small dealer seldom overbuys and is more amenable to reason when requests are firmly made for money and when losses come—they are sworn."

Wonder what's to be said contrarily to the above? Who will answer?

# BUYERS of RADIO

MERCHANDISE can see the exhibits of nearly one hundred leading representative manufacturers of Radio Products at the



# RADIO FAIR

Don't miss the RADIO SENSATION of the world at the

**PERMANENT RADIO FAIR, Inc.**  
HOTEL IMPERIAL—RED ROOM

Broadway and 32nd St.

New York

## COMING!

### A NEW "UNITED" VARIABLE CONDENSER WITH IMPROVED VERNIER

Get your name on our free mailing list for Bulletin, which will be sent as soon as it leaves the printers.

Everybody about our great \$800,000 plant is "wild" about our new Vernier Variable Condenser. You will be too, when you see it perform. And so will your customers.

Variable Condenser without Vernier



IT PAYS TO HANDLE

# "UNITED"

RADIO INSTRUMENTS

They "make good" everywhere, and all the time. Set owners have learned that

### "United" Variable Condensers and Audio Transformers

give uniformly good results, stay on the job, have no cranky moods and offer the biggest dollar's-worth for every dollar of their cost.

"UNITED" CONDENSERS  
43 plate. \$4.00 5 plate. \$2.50  
23 plate. 3.50 3 plate. 2.25  
11 plate. 3.00 without dial or knob.

"UNITED" TRANSFORMER  
Audio - Frequency, amplifies detected signals wonderfully. Magnetically shielded. Ratio 5 to 1. List Price... \$4.50



Pat. Appd. For

### "UNITED" NATIONAL ADVERTISING

Tells the public to go to your store for United Instruments. Don't disappoint anybody. Send for circular and discounts.

**UNITED MFG. & DISTRIBUTING CO.**  
536 Lake Shore Drive Chicago, Ill.

# Confidence and Self Respect Essential to Radio Salesmen

By WALTER FRENCH

If there is one thing above all else that a man needs to be a successful salesman, according to men who by years of selling experience have been qualified to speak with authority, it is confidence. Primarily, the man must

have confidence in himself, but to no less an extent must he have confidence in his house and in the goods he sells. Without it he cannot hope to succeed.

"One of the troubles with the selling lads, in the radio field, today, is

that there are too many side-street and side-line men in the game."

That's the way a prominent radio salesman puts it—to THE RADIO DEALER and for obvious reasons, the name of the salesman is omitted but his thoughts run, about as follows:

Of course, the jobber's salesmen are quite, as a class, a bit of all right and so are some of the so-called exclusive radio salesmen—but a lot of radio is made in factories not exclusively sold by exclusive radio salesmen.

The side-line men are the sort of salesmen who, prior to the advent of radio as an industry, managed to eke out a living, in other lines, selling to small stores on side-streets, rather than to the department stores and to wholesale houses.

These men are drifters and when a new thing comes along you can gamble these lads will be on deck and right now, today—at this very moment—some of these chaps are sitting in the high spots in some of our exclusive radio concerns.

Some will stay but others will fall, for their climb was at the expense of the swift going-up radio industry and not because of any selling genius they controlled.

These side-street chaps are, in many instances, of the same type as side-line salesmen. Radio can benefit, of course, if the side-line salesmen will make an effort to grasp their subject, to know their line.

Did you ever call on a storekeeper or jobber only to be told "we never handled your line and we don't want to handle it"? Did you argue price and quality? Did you offer to wager your line would make more profit for the house than the present line? That last idea opened a nice account for me, not so long ago.

A certain desirable department store declined to carry our line, though salesman and general manager had made all proper effort. Then I came along and threw "the more profit" idea into the head of the radio department head and won out, for *not many department stores are showing any real profit in their radio departments.*

Talking about side-street salesmen I heard and saw one take abuse from a new radio buyer, the other day. This abuse was not deserved and should not have been taken, under any cir-

## Lightning Storms Are Just Ahead



Type A, List Price \$2.00



Type B, List Price \$2.00

Underwriters are more insistent that their regulations be fulfilled

## Order Your Stock of KEYSTONE RADIO LIGHTNING ARRESTERS

Each day the demand for Keystone Radio Arresters is increasing and you may expect it to reach unprecedented proportions. Thousands will not buy arresters until the lightning storms begin—but they will then want them in a hurry and the fellow who has stock on hand will surely reap a harvest. We do not want you to place orders for more than you can handle, but want you to order now so that we can ship them to you when the rush comes.

Production is already ten days behind orders so don't wait—get your order in to-day.

Keystone Arresters are listed as standard by the Underwriter's Laboratories.

**ELECTRIC SERVICE SUPPLIES CO.**

17th and Cambria Sts., Phila., Pa.  
50 Church Street, New York, N. Y.  
Monadnock Bldg., Chicago, Ill.



Manufacturer of Lightning Arresters for 30 years

cumstances. The salesman, representing a big radio concern, took it and after an ineffectual attempt to get an order left.

And, mind you, he HAD something to sell. His house makes something every radio retailer requires!

Being next in line, the buyer started the same tactics with me but he didn't get far. I put it to him, in this manner:

"Mr. Blank, look here, I came here to sell you goods, not to take any language from you you wouldn't dare to use outside your office. Let's get this straight, whether I sell you or don't—the men who come in to sell you are not gutter-loafers and as for myself, I'll wager one hundred dollars I've got more money in the bank than you have and that I live better and I did all these things before you were in the radio business."

Of course, the buyer interposed, with an expression that I "had a lotta nerve."

Well, the short of it is that the buyer admitted he was on the wrong steer, same being due to his newness in the work and as we parted, friendly, I did get an order and so would have the man ahead of me if he had acted like a real salesman.

Have confidence in your line and in yourself. Base your self-confidence on self-respect. When you lose your self-respect you are through, as a salesman. When you lose confidence in your line you are through. Acquire and maintain self-respect that is important.

### Condensers of Quality

The condensers made by Stuckeman Bros., Inc., of 18 Ruth Street, Mount Washington, Pittsburgh, Pa., are unique in that while they are of the moulded post type, a brass rod is moulded into the post at the time of pouring. Thus the rod becomes an integral part of the post, eliminating the possibility of breakage and insuring a rigid condenser.

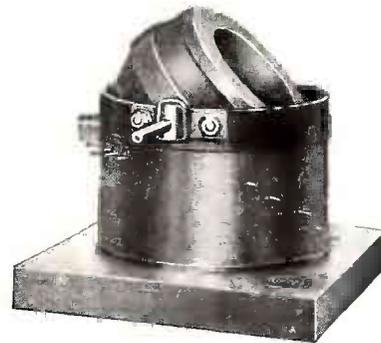
The manufacturers also believe that their spring tension adjusting device will automatically follow up a greater amount of wear than other condensers. Aluminum is used in the condenser plates, and these as well as the whole assembled instrument are tested to determine if the rotor is properly centered and to discover possible warping before they leave the factory.

These Stuckeman condensers now made in four capacities, three of these capacities being made both in the regular and vernier type.

## Most Radio Fans Prefer These Reliable **SIMPLEX** Variometers and Couplers



Simplex Variometer Unmounted, Price .....\$5.00

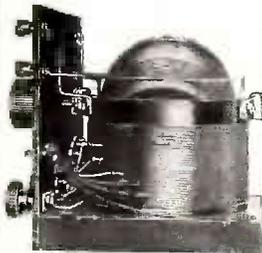


Simplex Vario-Coupler Unmounted, Price .....\$5.00

For efficient and accurate tuning they are unsurpassed. They were designed for efficiency and not to meet a price. They are, in every sense, a quality product being sold at a popular price.

We can now make immediate delivery with demand steadily increasing. Place a trial order with us and thus get the opinion of your Radio Fans. Insist upon the original Simplex products.

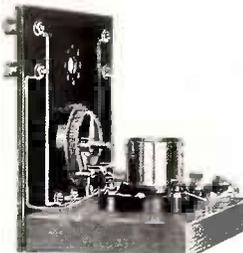
Simplex Panel Units likewise offer you an excellent proposition. Write for Bulletin No. 187 and dealer discount sheet.



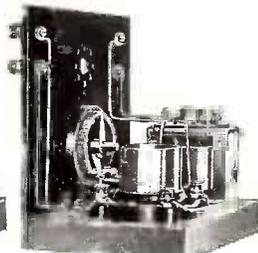
Simplex Vario-Coupler Panel



Simplex Variometer Panel



Simplex Detector Panel



Simplex Amplifier Panel

Write for Catalog and Discounts

## Electric Service Supplies Co.

Mfrs. of Lightning Arresters for 31 Years

PHILADELPHIA NEW YORK CHICAGO  
17th and Cambria Streets 50 Church Street Monadnock Building

Distributors for Simplex Radio Company



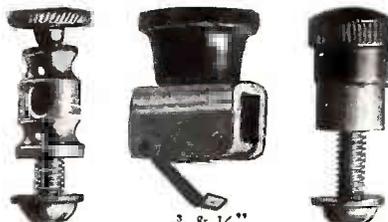
### FIXED CONDENSER

"The peak of perfection"

The Parkin FIXED CONDENSER is a substantial and efficient one-piece unit of the regulation type for use in receiving circuits. It is molded right into a solid, unbreakable Bakelite base, which will not discolor or soften with heat. The binding post screws also are soldered to the unit and molded into the base so they cannot become loose. The entire instrument is Parkin quality throughout. A good seller because every one sold brings orders for more. Order No. 53 retail price—

70c

Dealers and Jobbers write for sample  
**PARKIN MFG. CO.,**  
San Rafael, California



CRYSTALS      GALENA SILICON

CRYSTAL DETECTORS      List \$2.00

CRYSTAL RECEIVERS      List \$9.00

RADIO APPARATUS CO.  
6600 Hamilton Ave.      Pittsburgh, Pa.

**"COPPERWELD"**  
TRADE MARK REG. U.S. PAT. OFF.

**ANTENNA WIRE**

50% stronger than either solid or stranded copper

**ELIMINATES SAGGING**

Adopted by Largest Radio Manufacturers  
100, 150, 200 ft. per Carton

**LEAD-IN and GROUND WIRE**

has the Underwriters' O. K.  
Rubber Insulated—Brown Braid  
25, 50, 100 ft. per Carton

**BUY IT IN CARTONS**  
with construction directions

**COPPER CLAD STEEL COMPANY**  
New York      Chicago  
Braddock P. O., Rankin, Pa.

**Praco Panel Service**

We offer to the amateur and dealer

**REAL PANEL SERVICE.**

Our panels are cut to your order. Only genuine Condensite and Formica used.

1/8" per square in. 2c  
3/16" per square in. 2 1/2c  
1/4" per square in. 3c

We also carry a complete line of radio essentials. Dealers will find it profitable to have our latest price list and discount sheet.

**PITTSBURGH RADIO AND APPLIANCE CO., Inc.**  
"Pittsburgh's Radio Shop"  
Desk D  
112 Diamond St., Pittsburgh, Pa.

**Helical Coil Avoids Noise**

The greatest difficulty encountered in audio frequency amplification has been the capacitance effects in the transformers used. Distributed capacity in a transformer causes a current to flow in the secondary in such a direction as to oppose the current in the primary coil. The strength of the opposing current increases directly with the frequency. These capacitance effects result in "howling."

The helical coil winding in the Samson HW-A1 transformer, made by the Samson Electric Co., Canton, Mass., is designed to reduce distributed capacity to a minimum, at the same time bringing in sounds forty per cent clearer and louder. This helical winding, both in the primary and secondary coil, is wound on automatic machines with an exact number of turns to each layer and with these layers perpendicular to the axis of the coil, rather than parallel to it, as is the general practice. There is no paper between the layers the avoidance of insulating paper between the strata of winding also doing much to eliminate capacity effects.

**New G. E. Receiving Set**

A new type radio receiving set with loud speaker which operates entirely by dry cells and which it is claimed has an equal or better reception range than the average two-stage set using storage batteries for the filament current has been perfected by the General Electric Company, Schenectady.

This set uses three of the new type G. E. tubes which consume but sixty milliamperes filament current per tube or six one hundredths of the current used by the present type UV-201 tube.

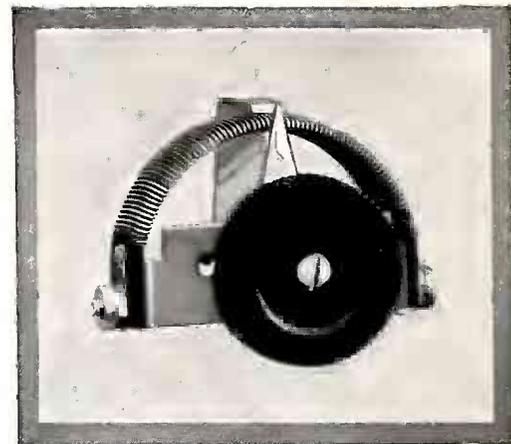
The "A" battery, which is the storage battery in ordinary receiving sets, consists of three dry cells such as used for door bells. The "B" battery consists of four, twenty-two and one-half volt units which supply ninety volts to the plate of the tubes. There is also a "C" battery, consisting of a small three-film flashlight dry battery supplying four and one-half volts to the amplifier grid.

**INSTALL TESTING MACHINE**

NEW YORK.—The New York Testing Laboratories, 80 Washington Street, have installed a new automatic 100,000 lb. Tinius Olsen testing machine, adding to their equipment for handling tensile, compression and transverse tests.

**TO TEACH DEAF PUPILS**

CINCINNATI, O.—The Cincinnati School Board is now using various forms of radio amplification in the instruction of deaf pupils.



**A BETTER RHEOSTAT**

A nicer looking, smoother working and better made rheostat than you have ever seen before.

Furnished with or without vernier this instrument will improve the operation of any radio equipment.

The many valuable features coupled with national advertising make this an instrument every dealer and jobber should stock—liberal discounts give ample margin of profit and low list means quick turnover. Order now.

List Prices  
123A Plain..... 80c  
Type 123B Vernier..... \$1.40

**THE WILCOX LABORATORIES**  
LANSING      MICHIGAN

**Do You Know**

We are the recognized authorities on wireless securities. Our Information and Analytical Departments are unexcelled. Let us know what company you are interested in and we will furnish without obligation, detailed information and opinion respecting its merits.

**FRANK T. STANTON & CO.**  
Specialists in Wireless Securities  
Since 1915  
35 Broad St.      New York  
Phone: Broad 1670-3641-5819

**RADIO CABINETS**

We manufacture a complete line of radio cabinets, of mahogany, walnut, oak, and white wood, in all sizes, and in any finish. Best of construction. Dirt, dust and moisture proof. Quick deliveries—quantity production prices. Send us your specifications, or a sample of your cabinets, and get our prices. We also make indoor loop aerials.



Cabinet Work Since 1900

**E. ESHOO CABINET WORKS**  
635 Herkimer St.      Telephone  
Brooklyn, N. Y.      Lafayette 2324

### Thorophone S-5

As the millions of radio fans become more and more dependent upon radio for recreation and information, they are becoming insistent upon worth while results in loud speakers. The Thorophone high power type S-5 loud speaker combines a solenoid unit built in conjunction with a controlled mica diaphragm. The sound box is of the phonograph type with mica diaphragm giving a good tone.

The Winkler-Reichmann Company, 4801 South Morgan Street, Chicago, have developed in this loud speaker an instrument that it claims will handle long distance signals with clear articulation.

### Standard Condensers

The features of construction of the Standard variable condensers, which are made by the Radio Parts & Manufacturing Company, 127 North Dearborn Street, Chicago, Ill., offer some excellent selling points.

Standard hard aluminum parts are permanently imbedded in solid brass posts, so that the instrument is not of the washer type. The minimum capacity is approximately one-thirtieth of the maximum, making fine tuning possible. The ends are of 3/16 of an inch bakelite, sufficiently large to protect the plates. The adjustment of the plates is stable, not being disturbed by jar or wrenching. The Standard variable condenser is made in three sizes, 4I, 2I and 1I plates, with a microfarad capacity of .001, .0005 and .00025, respectively.

### Kellogg Transformer

Makers for years of telephones and telephone equipment, the Kellogg Switchboard & Supply Co., Chicago, Ill., are also manufacturers and distributors of radio parts. Among the Kellogg leaders are the Kellogg transformers. They are built on ratios of from 1 to 3, 4, 5 and upward and are designed to overcome any defects of the transformers on the present market.

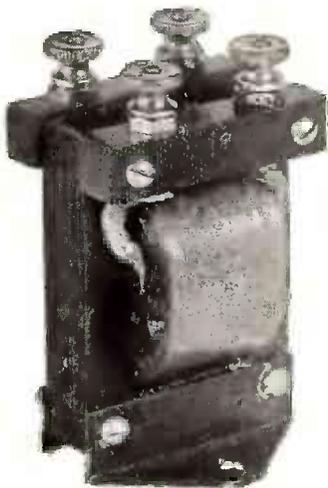
The primary and secondary bindings posts are easily accessible, being placed on top of the transformer, connections being held by nuts. These binding posts are plainly marked so that there can be no error in assembling. The highest grade of wire is used, and the instrument is enclosed in a black enameled metal case, giving it a neat and workmanlike appearance.

Let our Free Service Bureau help you supply your wants

# RADIO DEALERS & JOBBERS

WE ARE MANUFACTURERS OF THE

## F. M. C. AUDIO TRANSFORMERS



Try them in your W. D. 11 and other Tube Sets and note the increase in Volume

Stock them up and watch them move.

LIST PRICE, \$5.00

For Test Reports and Discounts Write to Dept. R. S.

## FORD MICA CO., Inc.

14 CHRISTOPHER ST.

NEW YORK CITY

# DICTOGRAPH

A Good Name

### Dictograph Radio Headset

The Best Headset in the World at any price—and the choice of every expert and radio fan

### Dictograph Loud Speaker

A real Loud Speaker at a popular price

Sell your customers goods you KNOW they will be proud of

Order through your jobber or write direct for names of authorized distributors

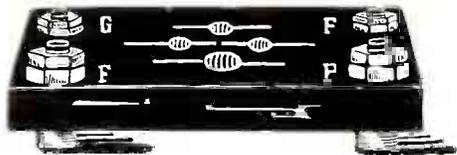
## Dictograph Products Corporation

220 West 42d St.

New York City

Branches in All Principal Cities

# FRANKLIN SOCKET



FOR W-D-11  
DRY CELL TUBE

Holds tube firmly  
Makes perfect contact

Price \$5.50

We also make an adaptor that fits standard sockets. Price, \$1.00.

Dealers write for discounts

**FRANKLIN RADIO MFG. CO.**  
711 Penn Ave. Wilkensburg, Pa.

We are headquarters for Phone, Grid and Grid Leak Condensers. Variable Condensers. Rheostats.

WRITE FOR PRICES

**Signal Radio & Elect. Corp.**

64 University Place, New York City



## SHELTONE

Loud Speaker

Without phones  
\$5.00

## VIKING RADIO CO.

26 D Cortlandt St. New York City

Distributors for

F. A. D. ANDREA CO.  
ALDEN NAPIER CO.  
CHAS. FRESHMAN CO.

Wholesale Only

Distributors and Jobbers Write for Discounts

# PATENTS

## To the Man with an Idea

I offer a comprehensive, experienced, efficient service for his prompt, legal protection, and the development of his proposition.

Send sketch or model and description, for advice as to cost, search through prior United States patents, etc. Preliminary advice gladly furnished without charge.

My experience and familiarity with various arts frequently enable me to accurately advise clients as to probable patentability before they go to any expense.

Booklet of valuable information, and form for properly disclosing your idea, free on request. Write today.

**RICHARD B. OWEN**  
Patent Lawyer

82 Owen Building, Washington, D. C.  
2276-10 Woolworth Building, New York City

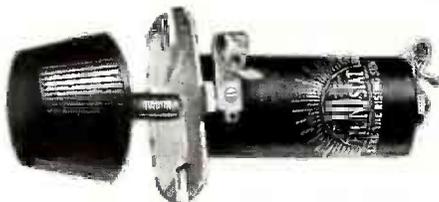
## Tuner in Tube

Filkostat a Device to Make Finer Tuning Possible

By MARTIN GREELEY

Efforts are constantly being made to make the vacuum tube, the brain of the modern radio set, even more efficient.

In the Filkostat, a new filament control just perfected by S. R. Hipple, well known as an inventor of apparatus for the control of electric currents, there is at last presented an instrument which is distinctly designed to utilize the great tuning possibilities of the vacuum tube itself. Radio set builders, amateurs and manufacturers have been looking forward to the advent of such a device. They have realized that all rheostats, and other filament regulators, are not capable of adjusting the infinitesimal graduations.



of filament so essential to perfect tuning.

The Filkostat permits more perfect regulation of filament heat. Since the heat emitted varies as the square of the current, fine current regulation becomes extremely necessary to accomplish. This governs the flow of electrons. Proper control of the electronic flow in the tube permits the very finest tuning conceivable. The fine adjustment of the Filkostat starts slightly before the tube begins to function. With other filament controls, what minute adjustment there is, starts when the filament is almost at maximum heat. Between 1,800 degrees—dull red glow—and 2,050 degrees—white heat—the Filkostat control is so fine that increases of temperature are in fractions of a degree, with corresponding variations of electronic flow from the filament to the plate, are obtainable.

The initial inrush of current prevents the crystallization of the filament which so many experts claim occurs when the current is fed too slowly at first as is done in other forms of filament controls. This means considerable increase in tube life. Furthermore the extreme degree of fineness in increase and decrease of electronic flow by infinitesimal variations, makes the Filkostat control even more desirable.

The perfection of design including ample internal contact is the cause of

**JOHN A. COZZONE & CO.**

[ 61 Arlington Street, Newark, N. J.

**VERNIER CONDENSERS**

# SUPER CRYSTAL

JAYNXON  
GUARANTEED 50% LONG DISTANCE RECEPTION 50%  
LDR

THE VACUUM TUBES ONLY RIVAL

Reflex and R.F. Crystals

Every User a Booster

**JAYNXON LABORATORY**  
57 DEY ST. NEW YORK, N. Y.

**BREMER-TULLY MFG. CO.**

Dealers

Write us for information on

**CONDENSITE CELORON PANELS**

and other high grade material

532-536 South Canal Street Chicago

Superior Products Manufacturing Corporation

1078-80 Springfield Ave. Irvington, N. J.

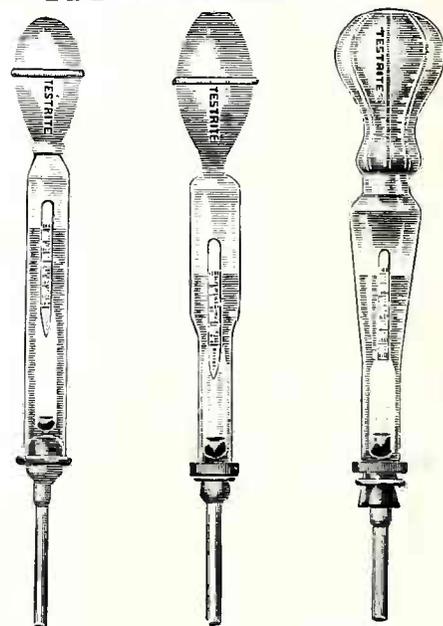
Watch for our special announcement in next issue of RADIO DEALER on SOCKETS.

## FOR RADIO BATTERIES

# TESTRITE

Reg. U. S. Pat. Off.

## HYDROMETERS



No. 100	No. 110	No. 120
50c	75c	\$1.00

GUARANTEED ACCURATE

JOBBERS write for PRICES

Manufactured by

**TESTRITE INSTRUMENT CO.**  
101 FIFTH AVENUE, NEW YORK CITY

this new instrument being non-microphonic, practically silent, and comparatively free from all noises.

Claims for the Filkostat have been substantiated by tests made on the Bureau of Standard's instruments

The Filkostat has a definite off. It is so designed that the filament extinguishes abruptly indicating that the A battery supply is completely disconnected. At full on the Filkostat resistance is practically zero. The Filkostat consists of a hollow cylinder containing the special resistance material placed between two large adjustable contacts controlled by turning the knob. The resistance element is so finely divided that no further division is possible. There are no disks to break or chip. The resistance remains constant at any position eliminating current variations once set.

The Filkostat is manufactured by the DX Instrument Company of Harrisburg, Pa. The entire international distribution is in the hands of Radio Stores Corporation of 218 West 34th street, New York City. An extensive advertising campaign to reach the dealer and consumer has been planned by the Arthur Rosenberg Co. Advertising Service of New York City.

### R. T. A. Cuts Now Ready

During the past month, there has been more than a gratifying demand for the cuts to be used by members of the Radio Trade Association on their stationery, circulars, and the like. These cuts provide a means for members of this organization to display the insignia of their association.



Two sizes of cuts as here illustrated are now obtainable, the smaller one having been added as more suitable for imprinting on envelopes. Either size of the Radio Trade Association insignia may be obtained from the Secretary at the nominal sum of thirty-five cents each.

The design of both cuts is the same, and is neat and simple carrying with it, wherever it may appear, the assurance that its user is an alert, public-spirited and conscientious member of the radio trade. Requisitions for cuts and applications for membership in the Radio Trade Association should be addressed to the Secretary, Radio Trade Association, 1133 Broadway, New York.

Ask Our Service Bureau

## "TRI-COIL"

THE TRANSFORMER WITH THE COMPENSATING COIL  
RADIO FREQUENCY



Awarded certificate of excellence by N. Y. Tribune

List Price

**\$1.50**

Attractive Discounts to Dealers

PATENT APPLIED FOR

LATEST DEVELOPMENT IN COUPLING  
A TRANSFORMER THAT GUARANTEES RESULTS

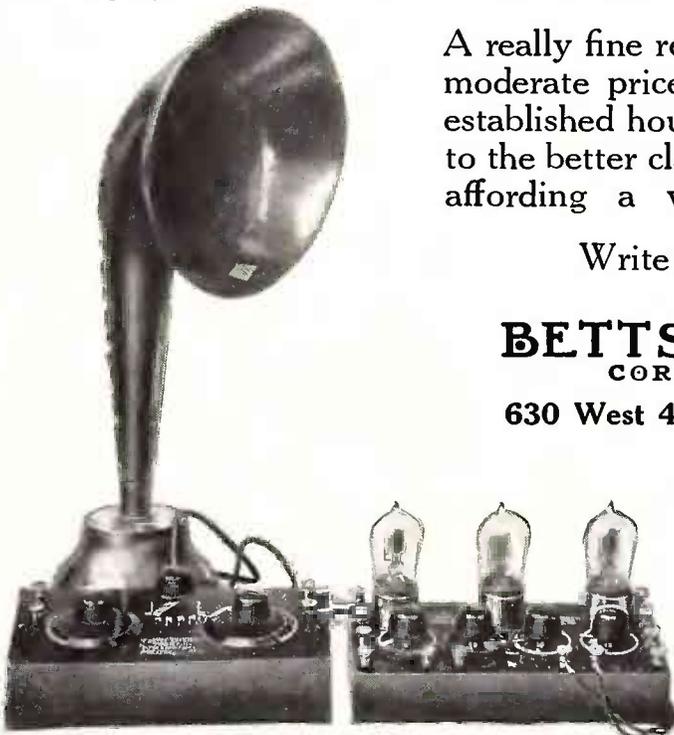
This transformer was successfully used in receiving music in a steel car in the steel subway tubes under the East river.

Manufactured By  
RADIO APPARATUS DIVISION

BROOKLYN METAL STAMPING CO., Brooklyn, N. Y.  
718-728 ATLANTIC AVENUE

## BETTS SPECIAL RECEIVER

Specially designed for receiving broadcasts at 300-450 meters —highly efficient and selective within this range.



A really fine receiving set sold at a moderate price. Made by a long established house, and offered only to the better class of trade on terms affording a white man's profit.

Write for terms.

**BETTS & BETTS**  
CORPORATION

630 West 43rd St., New York

Betts Special Tuner, type RC11 \$24.50

Betts Visible Detector-amplifier, type D2A without tubes \$38.50

Betts Loud Speaker Type W-800, \$25.00

Three together \$88.00

# "The Little Wonder"

FOR BOYS AND GIRLS

## CRYSTAL SETS

Unassembled - Net **\$1.75**

Catches distinctly everything broadcasted within 30 miles. We also manufacture the "Little Wonder" assembled set to retail at \$4.00.

**GUARANTEED TESTED CRYSTALS**

Galena 7½c Radiosite 8½c  
Dealers and Jobbers Write for Free Catalog

It lists all our radio parts and supplies.

Holloway Elec. Supply Co., Inc.  
238 Third Ave. New York City



**CRYSTAL RECTIFIER**

**MULTIPOINT (Patent Pending)**

**A SYNTHETIC CRYSTAL DETECTOR**  
Sensitive Over Entire Surface

**GUARANTEED**

Unequaled Clearness; Unequaled Volume; Unequaled Distance. The Standard Crystal Endorsed by Experts, Press and Trade

Manufacturers are increasing efficiency by equipping their crystal sets with Rusonite Crystals.  
List Price 50c.

### RUSONITE CATWHISKER

(Patent Pending)

14 Karat Gold—Supersensitive

List Price 25c

Attractive Discounts to the Trade

### RUSONITE PRODUCTS CORP.

Dept. D., 15 Park Row, New York, N. Y.

### RADION HARD RUBBER PANELS

Cut to Any Size

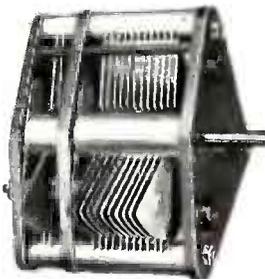
**DISCS, WASHERS, BUSHINGS, ETC.**

Made to Order

New York Hard Rubber Turning Co.

212 Centre Street, N. Y. C.

## A QUALITY CONDENSER



3 plate.....\$1.60  
11 " ..... 2.30  
23 " ..... 2.75  
43 " ..... 3.25

With 3 plate Vernier "Built In"

11 plate.....\$3.80  
23 " ..... 4.25  
43 " ..... 5.00  
Dials — Bakelite, .75 extra.  
Rubber ..... .60

Bakelite end plates, moulded posts with brass reinforcing rod running through each post. Adjustable spring tension. Accurate spacing and alignment.

### SPECIAL

3 plate.....\$1.25

Fiber end plate. "Old construction"  
23 plate.....\$2.00  
43 " ..... 2.50

### ADAPTERS

**\$1.50** Polished and nickel plated, threaded to screw on your Receiver. Made for any combination of phone and phonograph. Specify desired combination.



**STUCKEMAN BROS., Inc.**

18 Ruth St.

Pittsburgh, Pa.

## Letters Get Trade

Direct Letters Often Pay the Retailer

By Bernard Freedman

Until the average distribution of radio sets in the homes of your district is one hundred per cent, your district has not reached a saturation point. Radio has interests for everybody in your community, be he brainworker or laborer, school teacher or business man, adult or child.

To reach this mine of prospective purchasers you must advertise directly or indirectly. The following method of getting prospects interested (the direct letter) was used by the Virginia Radio Corporation, Charlottesville, Va., for one of its retail stores:

"Dear Sir:

"Every night is a happy one for each member of the family when you have a radio set.

"Did you ever sit in your own home at night and wish you could 'listen in' and hear great speeches and fine concerts going on in Chicago and New York City?

"Nothing would please your family and friends more than to be able to sit around a warm fire on a cold night and listen to the wonders of radio, some times coming from a thousand miles away—right out of the air—as if by magic. On Sunday nights you may hear a great sermon—in fact, the whole church service, including fine pipe organ and singing.

"We specialize in radio equipment only and would be pleased to show you the merits of our radio sets and how easily you can tune them. We make good every word we say for our sets."

### ADVERTISING VALUE

More and more do institutions realize that a store's stability depends in a great measure on the character of its printed and spoken word.

In the same proportion that constructive advertising, based on truth and fact, helps its organization, so does careless advertising undermine not only the confidence in which the store is held by its patrons, but it creates something equally dangerous—a careless regard for truth and fair dealing among the personnel of the organization itself.

That is probably one of the most fatal conditions that can enter into store life.—Herman Neaderland, of A. I. Namm, of Brooklyn.

Ask Our Service Bureau

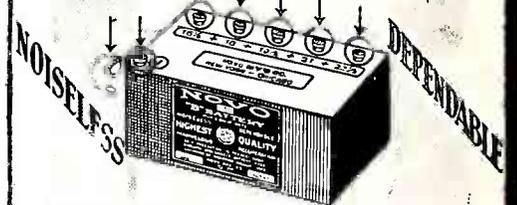
## THORNTON

**AUDIO FREQUENCY AMPLIFYING TRANSFORMERS**  
*Supreme Test Transformer*

These transformers are supplied in either mounted or unmounted types. Special attention paid to the manufacturer of receiving sets.

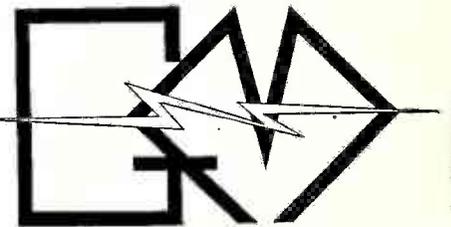
**THORNTON TRANSFORMER CO., Inc.**  
30 Church Street, New York City

## NOVO "B" BATTERIES



NOTE THE INSULATED BINDING POSTS AND 7/16" WIRE CONNECTOR

**NOVO M'FG CO.**  
424 W. 33rd ST. NEW YORK  
531 SO. DEARBORN ST. CHICAGO



**GUARANTEED RADIO APPARATUS**



**HONEYCOMB COILS**  
at special prices

WRITE FOR PRICES ON  
Antenna wire, Insulators, Bakelite Panels, Jacks, Plugs Variable Condensers, Variocouplers, etc.

**NATIONAL DISTRIBUTORS OF QUALITY PRODUCTS**

**GENERAL MERCHANDISE CO.**

6 Academy St., Newark, N. J.

## Present Trade Marks

(Continued from page 27)

eminently fair to both the trade-mark proprietor and the consuming public. And yet, one cannot help but wonder whither we are heading in this matter.

It seems quite conceivable that where a face powder or a dentifrice of foreign origin and of more or less definite formula or composition becomes popular in the United States owing largely to the happy nature of such formula or composition and goes by a certain name or trade-mark which does not in this country distinguish any other product, and where a domestic firm acquires the right and the knowledge necessary to sell or manufacture the said powder or dentifrice in this country that it should be permitted to designate its product by the original name or trade-mark so long as such product conformed to the original product. There should be some responsibility to the public, however, that the domestic product should conform to the original foreign product so long as it bore the original foreign name or trade-mark and this responsibility should be of a positive nature with the right to the use of the trade-name conditioned upon faithful performance in the manufacture and sale of the product.

In short, the time seems not far distant when Congress or the Courts or both will have to distinguish between marks that indicate solely origin and those that indicate also or solely a certain article of more or less constant composition, method of manufacture or other constant factors. Marks of the first class should not be permitted to be transferred for use on products of any but the original establishment and even then perhaps the change in ownership should be required to be noted on the goods in connection with the trade-mark for a limited length of time. Marks of the second class should be permitted to be transferred or licensed for use on goods of the same characteristics as the original product only and failure to maintain such characteristics should be punishable as a criminal offense and should involve a forfeiture.

Until a system of this sort is devised, we shall have an increasing number of trade-mark cases that seem quite irreconcilable with prior decisions, a resulting increase in appeals, and dissent among the judiciary.

## CRYSTALS Unconditionally GUARANTEED



### Standard Brand Special Radiocite

Crystals are unconditionally guaranteed to give satisfaction—we tie no strings to our offer, they must be right.

Packed in Neat Containers  
Samples and Prices Upon Request

**STANDARD MINERAL COMPANY**  
216 Market St. Newark, N. J.

## NATIONAL ADVERTISING IN RADIO AND POPULAR MAGAZINES

and their uniformly satisfactory performance, have created a positive and widespread demand for

### "ALL-AMERICAN" AMPLIFYING TRANSFORMERS

(Radio and Audio Frequency)

Dealers handling this line have every advantage: Quick Sales; liberal discounts; effective cooperation—and the knowledge that they are giving their customers the best Transformers ever built.

Send for circular and Discounts

**RAULAND MFG. CO.**  
35 So. Dearborn St., Chicago, Ill.



Audio Frequency Transformer



Radio Frequency Transformer

## ASK OUR SERVICE BUREAU

## RADIO PANELS

And other insulation for Wireless Work

## BAKELITE-DILECTO

Grade XX Black was used by the Government during the war for this purpose. It is the

*Standard of the World*

## THE CONTINENTAL FIBRE COMPANY

NEWARK, DEL.

New York, 233 Broadway  
Pittsburgh, 301 Fifth Ave.  
Los Angeles, 411 S. Main St.  
Seattle, Wash., 1927 First Ave., South

Chicago, 332 S. Michigan Ave.  
San Francisco, 75 Fremont St.  
Rochester, N. Y., 85 Plymouth Ave., South

## WHITE BILL DEFEATED IN U. S. SENATE

The White Bill, aimed to regulate broadcasting, placing radio broadcast-casting in charge of Secretary Hoover, passed recently by the House of Representatives, has been defeated in the Senate.

Senator Walter E. Edge, of New Jersey, in a statement to the publisher of the RADIO DEALER says the White bill was defeated because Senator Underwood, Democratic Senator from Alabama, raised the objection to rushing through legislation on such an important subject, at a time so close to adjournment.

Another Senator says that objection was made to the bill because it furthered a tendency to create monopolistic air conditions for certain "interests." The Senator asked that his name should not be used.

Many of the folks in the radio trade—in a commercial manner—declare they are pleased at the action of the Senate and declare that when a bill to regulate air matters is again offered, the Senators will be enabled to emasculate such measure in proper fashion—to conserve the interests of radio fan and business man.

## New Radio Boom

Better Merchandise and Advertising Have Splendid Results

By FRANK T. STANTON

In a survey of the radio field, I find that the sales and distribution system of apparatus is the most efficiently operated since the great boom of last year. At that time the demand for equipment bordered on hysteria. Purchases were made without regard for the quality of equipment and practically every store of importance in the community handled radio apparatus, whether they were primarily in the drug, hardware, furniture or electrical business. Today, however, conditions have become more stabilized. People are discarding inferior equipment and have turned their attention to the better grade of apparatus manufactured by the well known and established concerns. Much of this is due to the national advertising campaigns by the prominent companies together with the co-operation of newspapers and trade journals. The consensus of opinion seems to be that we are having today a good sized boom in the radio industry, similar to the great activity of last year but in a more quiet way. Manufacturers now know what the public want and have shaped their policies to meet the new specifications. Likewise, qualified agents handle the sales and distributing end of the business—giving the people service plus high quality and low cost, a combination that is difficult to exceed.

Radio securities have done little in the stock market during the past few weeks, but conditions governing them were never more favorable than today. With the public again entering the market, considerable improvement may be expected.

Last year we had a radio boom, when an attempt was made to flood the public with doubtful promotions. Investors were warned to confine their purchases to the seasoned and established concerns in the field, with the result that the mushroom concerns of little merit were compelled to fall by the wayside. Subsequently, we had an industrial boom, then of oils and now we are in the midst of taxi-cab stock offerings. This should soon peter out when the radio stocks will again come into their own. Many of the successful independent radio concerns that are making money and face splendid prospects, should play a prominent part in this activity, which will be on a broader and more legitimate scale than that of last year.



Essex 150-600  
meter 180°  
Vario - Coupler—  
Green Wire.  
Price \$1.00 net

### ESSEX SPECIAL AUDIO TRANSFORMER DESIGNED FOR USE WITH WD11 AND 201A TUBES.

PRICE, \$2.55 EACH, NET

ESSEX BUS WIRE NO. 14  
Square Tinned—Specially  
Prepared and Will Give  
Entire Satisfaction. \$1.00  
Per Hundred Feet.

ESSEX LIGHTNING  
ARRESTERS  
75c Each. List Price, \$1.50

Send for Dealers' Quantity  
Prices



ESSEX MFG. CO.

117 Mulberry Street, Newark, N. J.

*De Forest* 

**HEADQUARTERS**  
Complete Stock—All Sets,  
Parts, Tubes, Accessories.

Write for your copy of the new De  
Forest dealer authorization proposition.  
*It is worth money to you.*

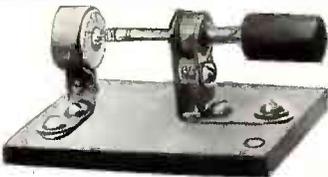
Reliability—Service—Co-operation

**RADIO STORES CORPORATION**  
Distributors  
224 West 34th St. New York City

**PATENTS**  
ELECTRICAL MECHANICAL  
RADIO

SEND SKETCH AND DESCRIPTION  
FOR OPINION

**EMIL ALEXANDER KERN**  
328 SOUTH SEVENTH STREET  
NEWARK, N. J.



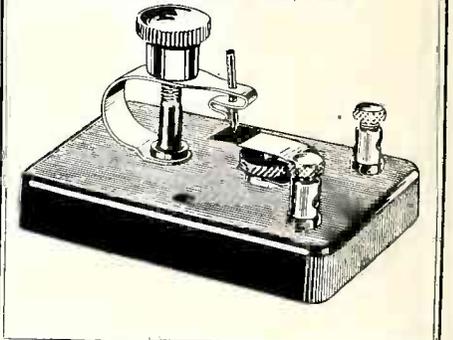
**CLOSING OUT**  
Manufacturer will sell AT COST  
several hundred detector stands —  
Celon Base, Nickel-Plated Brass Parts.

**\$18.00 per hundred**

Box M21 RADIO DEALER

THEY'RE GOOD—GET ONE

"EVERY SPOT SENSITIVE"



A CHEMICAL DETECTOR

Try the loud, clear velvet  
tone Reinhold Radio De-  
tector and forget your  
catwhisker troubles. List  
\$1.50.

Dealers and Jobbers  
Write for Proposition

**Radio Detector Co.**  
33 Clinton St.  
Newark, N. J.

# Announcing **MAZDA** Radio Parts

For the Progressive Retailer and Jobber  
at Discounts of 50% and More

## SENIOR VERNIER CONDENSER

Straight Line Plates  
3 plate, 23 plate, 43 plate

## VERNIER TUNING CONDENSERS

Finest Tuning with ease  
3 plates only

## JACKS

5 styles covering all demands  
Soldering with a Match

## SPRING DOUBLE CONTACT SOCKETS

Gold plated contacts, metal shell  
Moulded or set screw type

## FIXED CONDENSERS (Variable)

Varies Down From Capacity .00025--.0005.

## JUNIOR VERNIER CONDENSER

Contains 2-built verniers  
3 plate, 23 plate, 43 plate

## RHEOSTAT

Graphite Filament Control  
For Receiving or Transmission

## SENIOR PLUG

Phone Tips, Spade Terminal or Wire  
No Short Circuit

## KNOBS AND DIALS

Handsomely Finished and Polished  
Made for 1/4 inch and 3/16 inch shaft

## BINDING POSTS

## CRYSTAL CUPS

## CONTACT POINTS

*Mazda Parts are New, Original and Better*

## DARLING RADIO COMPANY

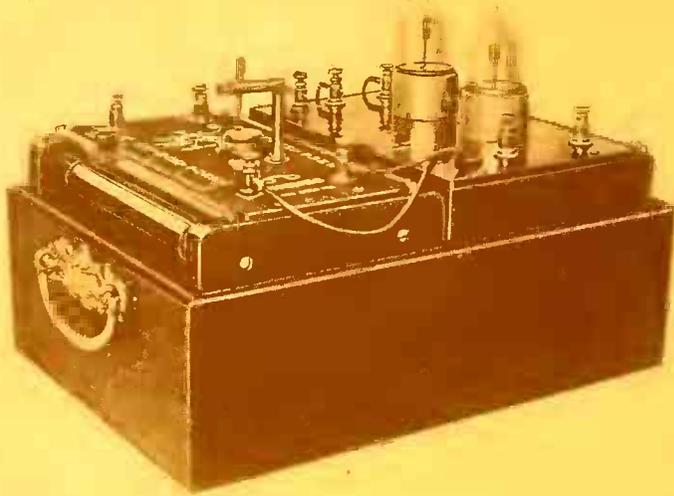
Phone: Audubon 5670

563 West 145th Street

∴

New York City

# SELL THE RADIO SET IN SECTIONS



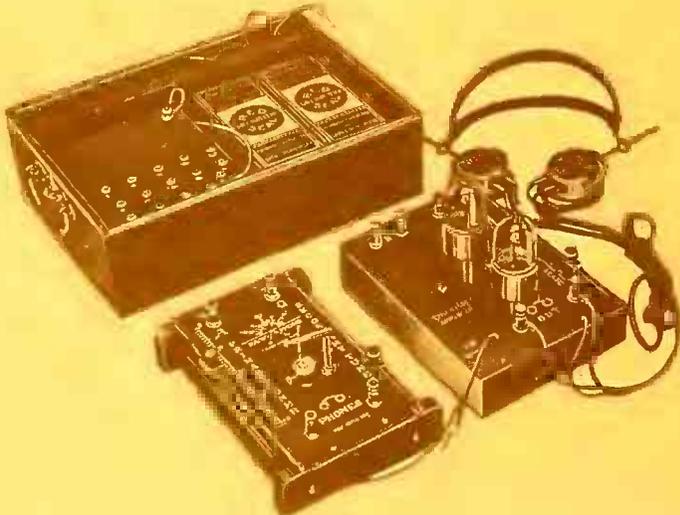
**\$24 complete**  
*(Without tubes or batteries)*

**Dealers can make more profit by selling to the masses**

*(more people can buy a Radio Set in sections than complete)*

The Crystal Receiving Unit with two stages of amplification added has proven to be the clearest and most efficient for receiving broadcast concerts. This (foolproof) Crystal Receiving Unit (equipped with the Mul-Ti-Tec Crystal) used with a two stage amplifying unit allows the use of a loudspeaker.

Crystal Receiving Unit, Two Stage Amplifying Unit, and Batteries [both "A" (dry cells) and "B"] contained in beautiful mahogany chest.



**SIMPLE-X CRYSTAL RECEIVING UNIT.**—The same efficient crystal receiving set that has enjoyed such wonderful success—Foolproof—equipped with Mul-Ti-Tec crystal and roller sliders to give smooth constant contact.

*List Price*.....\$6.00

**SIMPLE-A TWO STAGE AMPLIFYING UNIT.**—A high class unit easily attached to crystal receiving unit and thus allowing the use of a loudspeaker. Equipped with either W.D 11 or U.V. 201 sockets.

*List Price*.....\$16.00

**MAHOGANY CHEST.**—Designed especially to hold the Simple-X Crystal Receiving Unit and Simple-A Two-Stage Amplifying Unit together with batteries ("A" dry cells and "B"). Gives nice appearance from all sides.

*List Price*.....\$3.00

**TWO UNITS WITH MAHOGANY CHEST**.....\$24.00

*Distributors—There are still some exclusive territories open  
Dealers—Write or wire for discounts*

## SIMPLE-A RADIO CO.

82 Beaver St.

New York City

## The Service Bureau Of the Radio Dealer

Performs a peculiar service for the radio industry in that it brings buyers and sellers together.

If you want anything in radio consult the Service Bureau, and it is a hundred to one shot that you will be brought in contact with the person who wants to sell it.

### Service Is Free

Write your wants on a post-card or use the coupon below

.....  
Manager, Service Bureau,  
**THE RADIO DEALER,**  
1133 Broadway, New York.

Kindly put me in touch with concerns that can supply me with

.....  
.....  
.....

Signed .....

No.....

City.....

Date..... State.....

Check Here:  
We are:

Manufacturers..... Jobbers.....

Dealers.....

## Two Kinds of Stores?

### Distinction Between Apparatus and Set Shops Discussed

By JARROLD TOMLINSON

What will the radio store of the future be, is a question that has more than passing interest for the radio dealer of today.

Many persons who have made a special study of the radio business since its earliest beginnings seem to see a gradual division of the business into stores that sell parts and stores that handle complete sets exclusively and compare the latter class to the present development of the phonograph shop.

But it seems to the writer that in trying to decide what present radio retailing is developing into, the average person is inclined to base his beliefs too much on comparisons with other lines of retail business. Radio is absolutely distinct from every other line of distribution. The distinction lies in this fact: A radio set is a progressive instrument. It is always being changed.

The process of acquiring a radio set, it may safely be said, will usually consist, first, in buying a small, cheap set and then gradually in advancing to a better and more expensive one. Behind all this incentive for better reception, there will always be the distance craze, as new continents and new distances come into the general range.

Since the radio equipment in the average household will always be changing, it stands to reason that the radio dealer will have to stock up on both complete sets, some in period cabinet designs, and a full line of apparatus.

Some there are who dispute the fact that there will be sufficient to warrant the establishment of exclusive radio stores. The answer to this is that the present tendency is toward exclusive stores. If there is sufficient business, in the larger cities at least, to warrant the establishment of exclusive shirt stores, glove stores, hosiery stores, etc., it stands to reason, also, that there is sufficient opportunity to create enough business to establish exclusive radio stores. Radio is vastly more important than anybody at present is prone to realize.

### Bruno Increases Production

The Bruno Radio Corporation, of 152 West Fourteenth street, New York, have found it necessary to increase their production on the Bru WD-11 vacuum tube socket. This increase has been caused by the incessant demand for this popular socket.

# FIBERTONE

Follow up your radio sales with the Fibertone horn. Every customer that walks into your store presents a sales possibility for you.

The universal demand is for fiber horns. Fibertone is more than a fiber horn—it is hand made and scientifically correct for radio amplification.

The unique method of manufacture which requires all hand work, builds a horn unequalled for true and mellow tone, eliminating blast, vibration tinny, and metallic sound.

Fibertone horns are seamless, and will not crack or chip. Handsomely finished in black crystalline. A very easy horn to sell. Quick turnover and a good profit.

Write for Dealer Proposition

## Fiber Products Company

Bloomfield and N. 10th St.

NEWARK, N. J.

Every Radio customer is a prospect for the dealer handling FIBERTONE horns

MANUFACTURERS  
Horns built according to your own designs

\$10



Now is the time to sell horns

## Hit it anywhere!

### Magnetite Radio Crystal



The most sensitive Crystal Detector on the WORLD market. Unaffected by handling or moisture and will render efficient service indefinitely—GUARANTEED—Display posters supplied to the Trade. Being advertised nationally—List 50 cents per Crystal.

JOBBER AND DEALERS WRITE IMMEDIATELY

GIBBONS-DUSTIN RADIO MFG. CO  
Owners and National Distributors

518 West 9th St.

Los Angeles, Calif., U. S. A.



## A Phone For Every Set



Try One and You'll Buy One

## Royal Electrical Laboratories

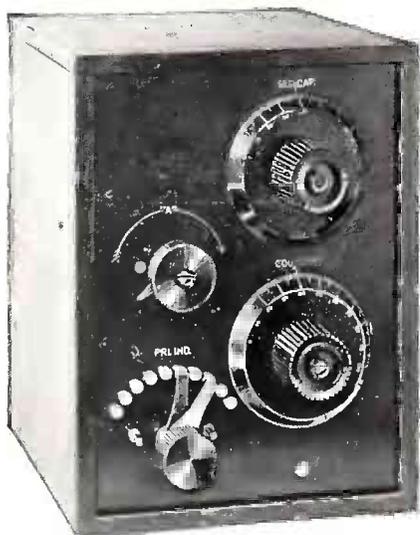
Manufacturers of

Electrical and Radio Equipment

NEWARK, N. J.

*Royalphone*

Have you investigated the  
**DRY CELL SET THAT SELLS**  
It will pay you to do so



Q. T. DRY CELL SET

**\$8.50**

NET TO THE DEALER

Can be sold at \$25.00 with phones,  
tube and batteries at a good profit.

### SPECIFICATIONS—

Mahogany-stained oak cabinet, engraved Radion panel, Ajax socket-rheostat, 23 plate variable condenser, 180° Bakelite variocoupler, no external binding posts, busbar wiring, all connections securely soldered.

Write for Full Information

**THE Q. T. LIGHT CO.**

East Orange

Dept. D-2

N. J.

## Guarantees Distance

The Volta Engineering Company, of Frankford, Pa., are having remarkable success with a long distance set which is guaranteed to reach stations within a radius of 2,500 to 3,000 miles. This novel guarantee is a proof of the faith the company has in their product. The set is a detector and three stage radio frequency amplifier, constructed entirely of parts made by the company itself.

Among the novel features of the set is the Volta Variomo-coupler which is the exclusive product of this company. Wave-lengths from 200 to 750 meters can be tuned in with the utmost accuracy by means of this simple, fool-proof combination of variometer and coupler. There is a special jack for the plugging in of a loop aerial, while all binding posts are nickel-plated and suitable for either pin or spade tips. These posts are an exclusive Volta product and add to the neatness of the set's external appearance.

There is no soldering of the wiring, all wires being scraped and bolted. The dials are of bakelite, with a panel of special Radion hard rubber. The set is enclosed in a solid mahogany cabinet. The wiring is not complicated, and the tubes are well spaced, doing away with inter-tube interference.

Recent tests at Philadelphia have brought in stations in Los Angeles; Reno, Nevada; Seattle, Washington; and Winnipeg, Canada.

## Announce New Battery

Announcement is made that on March 1, the Carbon Products Company, of 11 Moore St., New York City, will begin distribution of their new Ace Radio A Battery, designed especially for operating WD-11 and the new UV-201 tubes.

These new dry-cell batteries, the makers add, are made from selected cells, connected in parallel to increase the life of the whole battery. This type of battery does not involve re-charging, a great advantage to those users who are far from a battery-charging station.

The Ace Radio A batteries are made in three sizes, 1½ volts, 2 volts and 4½ volts. They are said to be more convenient than storage batteries, since they are cleaner, containing no injurious acids to spill and no fumes to inhale. They are particularly adapted to radio use, as they are sufficiently light to be carried about with ease and can be placed anywhere, without damaging the finish of table tops, polished floors or other delicate surfaces.

The  
**SABCO**

MODEL B 100  
**6.00**  
WEST OF MISS.  
7¢

**2**  
HEAT  
PAT. PENDING

**ELECTRIC  
SOLDERING  
IRON**

AT YOUR  
DEALER—  
OR DIRECT  
FROM  
MAKER.

THE IRON WITH  
**TWO HEATS**  
FOR ACCURATE  
RADIO WORK

M'FD BY  
**STRAUSS & BLUM, Inc.**

256½ West 41 St.  
NEW YORK CITY

DISTRIBUTORS  
WANTED.

## Complete Receiving Sets of Merit

Write for descriptive circular  
**Oranola Radio Corp.**  
228—7th Ave., N. Y. C.

## REINARTZ

All Parts necessary

Wholesale Only

DEALERS: Write for discounts

**HUDSON-ROSS**  
123 W. Madison St. Chicago

## Ask Our Service Bureau

## POSTER'S PERFECT PANELS

XX Bakelite—Dilecto Radio Panels

Manufacturers and dealers; immediate  
delivery—any quantity—cut to size.

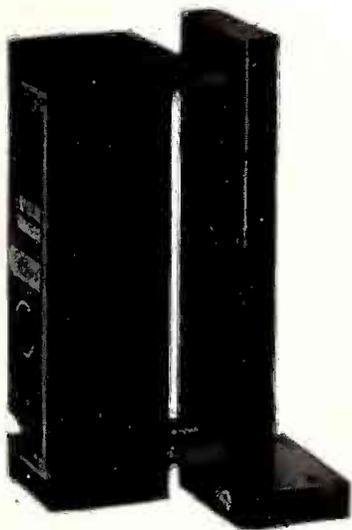
Engraving and Drilling

Sharp white lettering, clean accurate  
work, quantity production at surprisingly  
low cost. Write today for Sample and  
prices.

POSTER & COMPANY, INC.  
552 Seventh Ave., New York  
Phone: Penn. 5385

### DX Transformers

How to make the reception of short wave lengths through the use of radio frequency amplification more efficient is the problem that the Radio Instrument Company, of Tenth and D Streets, N. W., Washington, D. C.,



set out to solve, and their DX radio frequency amplifying transformer and mounting is the result.

Type DX-1 is designed for reception of a range of 170-450 meters; type DX-S for 400-1,200 meters, and type DX-2 for 900-3,000 meters.

### Radioceive Sets

A head set weighing only twelve ounces and designed for the comfort of the radio fan in many other ways is now being offered by the Radioceive Manufacturing Company, Jeliff Avenue, Newark, N. J. The head bands are made in a single piece of nickel-plated phosphor-bronze, which will not rust and is sanitary, being easily cleaned. There is nothing in the whole set to catch in the hair. The Radioceive head set is adjustable by moving the phones up or down in a slot and locks in any position. The ball joint feature makes the phones self-conforming to the ear.

The phones themselves are designed for service. The magnets and pole pieces, rigidly mounted, are made of magnet steel, carefully analyzed to insure permanent magnetism. The cord that goes with each set is six feet long and can be removed from the phones without opening the cases. Each Radioceive head set is packed in

### BROADCAST IN CHINA—NEXT!

SHANGHAI.—The first radio broadcasting program ever given in China was staged last week by the American Radio Corporation, through the China Press. The Chinese Y. M. C. A., the principal hotels and ships at sea enjoyed the program, the dispatch states.

## DELICATE SOLDERING

Both the manufacturers' and amateurs' problem on all fine work is readily solved by the instrument constructed for this particular purpose.

### THE POST SOLDERING IRON

Platinum Heating Unit—Interchangeable Tips—Universal Current  
(Large and Small)



One Half Actual Size

LISTS AT \$6.00

Dealers' and Jobbers' discounts on request

Awarded Certificate of Excellency, N. Y. Evening Mail Radio Institute

POST ELECTRIC COMPANY, (Office 509) 30 E. 42nd St., New York

## ELECTRICAL TESTING

Of all materials entering into Radio Construction. Meters and apparatus calibrated and repaired.

### CHEMICAL ANALYSES STRENGTH TESTS

Investigation or Development of New Apparatus and Materials. Routine Tests at Special Rates.

### NEW YORK TESTING LABORATORIES

80 Washington Street, New York City

Bowling Green 7016

### FINAL PERFECTION AND DOWN TO A PRICE "KING" SR., VARIOMETER

Qualifications:  
All capacity loss eliminated by elimination of hardware

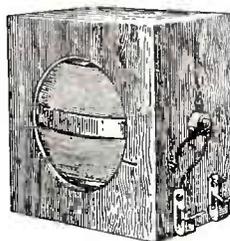
New attachment method of wires eliminates wires loosening.

Pigtail connection

Fahnestock Clips for

Hook Up Connections

Size **\$1.60 Each**  
4 3/4 x 4 3/4 x 3 Price to the Trade



Advantages to Consumer.  
A Price Within the Reach of All.

Rough usage and unprofessional handling cannot harm this variometer.

A guarantee slip packed with each variometer makes the manufacturers responsible direct to consumer.

Beautiful Natural Oak Finish.

The biggest sensational value of 1923. Smaller type "King Jr." Costs Less

### THE AREMCOE MANUFACTURING COMPANY

Sales Office: 303 Fourth Avenue

Gramercy 1583

New York City

## "EURACO" MICA GRID CONDENSERS AND LEAKS

Price 60 cents  
(Designed to fit Standard Grid Leak Base)

### GRID LEAK VALUES:

0.5—0.75—1.0  
1.5—2.0—2.5  
Megohms

Price, 60 Cents



COMPACT,  
INTER-  
CHANGEABLE,  
HANDY,  
MOST  
EFFICIENT

"Euraco" Condensers are composed of Copper Sheet and Best Grade India Ruby Mica, and are entirely Hand Made.

Manufactured in following capacities:

.000025 Mfd—Correct for Myers Radio-Audion RAC-3  
.0001 " —For Special or Experimental Circuits  
.00025 " —Correct for Super-Hetrodyne & UV 201  
.0005 " —Correct for Radiotron UV 200

Condenser—Leak Mountings

Bakelite Base with Single Mounting ..... \$ .40  
Bakelite Base with Double Mounting ..... .60  
Bakelite Base with Triple Mounting ..... .80

Interesting Dealers' Proposition

EUROPEAN RADIO COMPANY

1342 East 22nd St., Brooklyn, N. Y.

## LITTLE GEM



Simple, Clear, Efficient and Beautiful

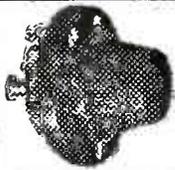
**PRICE**  
**\$6.50**

*Attractive Proposition for Jobbers and Dealers*

**UNITED SPECIALTIES CO.**  
Incorporated  
57-59 Spring St., Newark, N. J.

WHEN YOU NEED  
**INSULATORS—**

**MORSCAN RADIO CO.**  
202 Market St., Newark, N.J.



### RHEOSTATS

and Other  
**STANDARD PARTS**  
FOR TUBE and CRYSTAL SETS  
Dealers: Write for Price List and Proposition.

**The Aerovox Wireless Corp.**  
New York City

208 W. 17th St.

Ask our Service Bureau



*Assures*  
**Quality**

**Henry Hyman & Co., Inc.**

476 Broadway, New York City 212 W. Austin Ave. Chicago, Ill.

### PAPER CONDENSERS

Manufacturers, Jobbers, Dealers

Will sell any standard size condensers in thousand lots only for

**\$25.00 per 1,000**

Standard sizes: .00025, .0005, .0005 & ½ Meg. G. L.,

.001  
Special sizes: .002, 35.00 per 1000; .005, .006—60.00 per 1000

**WALTER E. BATHGATE**  
67 Elliott Street Passaic, N. J.



### SHELTONE

**Loud Speaker**

Without phones

**\$5.00**

### Vario-coupler

180 Degrees—Bakelite tubing, green silk wire.

Write for prices and discounts.

**WALD ELECTRIC CO.**

101 Varick St. New York City

## Book Reviews

By

**BERNARD JEROME FARRELL**

RADIO FOR ALL. By H. Gernsback. Published by J. B. Lippincott Company, Philadelphia. 292 pages.

Attractive both in content and make-up, this latest addition to the ranks of radio treatises is expected to be one of the most widely read of its kind. Its author, Mr. Gernsback, is editor of a well-known amateur radio journal, and wherever the name vacuum tube or rheostat is a household word his name is likely to be mentioned.

"Radio for All" is a complete summary of radio in its every manifestation, written as only a man thoroughly acquainted with the beginnings as well as the present state of radio could write it. And it is this knowledge of the present and past that enables the writer also to discuss the future of radio with a great deal of interest. The book is written clearly from beginning to end and Mr. Gernsback makes every difficulty clear through the use of verbal as well as pictorial illustrations. Beginning with a chapter on the historical side of radio, he proceeds to describe radio waves in a chapter on Wave Analogies. Gradually he goes deeper and deeper into the subject, first describing the process of transmitting, so that the reader may later understand reception more clearly.

There are chapters for every part of radio equipment and the final divisions deal with the construction of sets. The last chapter on the future of radio is illuminating, as is the frontispiece, which is an imaginative picture of what radio will perform in the future. There are numerous appendices, including those on radio abbreviations, wireless telegraphy codes, and the radio law of 1912. The book is decidedly worth-while.

### Hook-Ups Aid

(Continued from page 17)

to acquire quite a knowledge of the construction of apparatus.

This assembling idea should be encouraged by dealers, as their profits depend greatly upon parts. By supplying information on the new circuits or even on standard hook-ups sales will be increased. In a great many cases, it has been observed that the dealer's salesmen are not willing to spend much time making diagrams and talk-

## THE EASTERN 180°-Vario-Coupler

List  
\$4.00



**"EVERY FEATURE A  
COUPLER SHOULD HAVE"**

Bakelite Tubing  
Double Silk Covered Wire  
Spring Adjustment  
180 deg. Stops  
Panel or Table Mounting  
Fahnestock Connectors  
Soldered Pigtail Leads  
¼" Solid Shaft—True Rotation  
Single and Multiple Turn Taps  
We manufacture a complete line of Vario Couplers

Dealers write for discounts

**EASTERN RADIO MFG. CO.**

22 Warren Street

New York, N. Y.

Keep up with  
**PATENTS**

Read The Radio Dealer Weekly  
1133 Broadway, New York, N. Y.

## GANAERITE Detector Crystals

Twenty years of practical mineralogy gave us the material to produce the highest quality crystal.

We are now undertaking the largest single order for mounted crystals in the market.

We test and *guarantee* to replace or refund on any unsatisfactory Ganaerite crystal.

**The Harris Laboratory**

26 Cortlandt St., New York City

ing to fans and amateurs who seek information. Many boys or even middle-aged men are disappointed because of what they call "lack of service." In most stores only one or two salesmen are available and since they have to attend to several waiting customers, they cannot stop to give the information these customers desire, before purchasing apparatus. This means a loss of sales in all of these cases as it is well known that if given intelligent information, a man will buy the necessary parts to make an outfit, otherwise, the great majority will not attempt the job unless they know exactly what to do and how to use the parts which they have seen advertised and are willing to buy.

The majority have a very vague idea on how to proceed. After hearing so much said about such and such a tuner or circuit, they want to try it but do not know how to start to make it. If the dealer to whom they go can give them enough data on how to construct the set that they want, this would mean a fair sized sale for that dealer. We have seen on the market plans and books on how to construct outfits. Some of them only show the circuits, others give information but very few are complete in themselves and contain enough information to enable the layman to construct a receiving set. A great majority of radio fans do not know how to read a diagram nor understand the symbols, and are not interested in the plain diagrams as generally drawn by the experienced amateurs who know the game. It is commonly believed that the dealer should attach importance to any of these publications that will help make a sale since it will save their time and will make a few dollars extra profit which is a sure-fire proposition, as in 99 cases out of 100, the buyer will be willing to spend a small sum to buy the information he needs. Some of these publications give the list of parts necessary to construct the sets described in the book. This enables the customer to make a list of the parts that he needs, thereby providing another saving in time for the salesman. Recently there has been placed on the market, a book of plans in which all the sets are shown as actually built with the wires connecting each piece of apparatus represented where it should be and as it is, not in the form of a diagram which most cannot understand, but simply drawn. In addition

## WHY METRO HEADPHONES ARE SUPERIOR



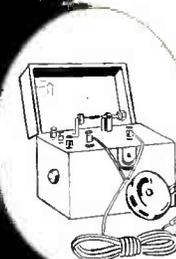
**MAGNETS**

**Permanently Sensitive**

**THE** magnets of Metro Phones are made of highest quality tungsten steel, put through a special heat treatment, magnetized and then carefully "aged" to a uniform magnetic strength. These magnets will not weaken or lose their magnetism.

**Profitable Merchandise**

Metro Products outsell ordinary radio merchandise on sheer merit, demonstrably better value and assurance of durability. Each one has exclusive points of advantage, points that mean big profits and more frequent turnover.



**Little Giant Receiving Set**  
A surprisingly compact set. Cabinet highly polished American walnut finish. Simplest tuning device. Complete with Metro Headphones.  
**LIST, \$14**



**Metro Wave Selector**  
Makes any set highly selective. Completely separates 360 from 400 meters. Adds only one control without changing set. Cabinet, highly polished American Walnut finish.  
**LIST, \$7.50**

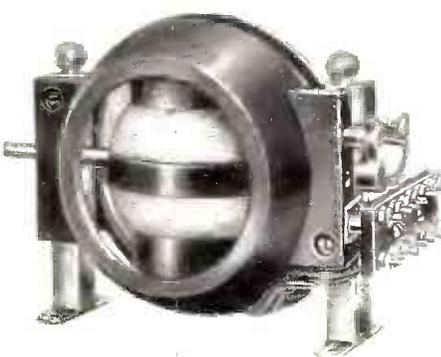
**Metro Electrical Co., Inc.**  
Manufacturers of Metropolitan Radio Products  
71 Goble St. Newark, N. J.



**List Price, \$8.00**

Our aim is to produce Radio Apparatus that will approach as near to perfection as present day manufacturing methods will allow. This applies not only to appearance, but also to materials and construction.

**THE EAGLE VARIOMETER** is made of genuine red moulded Bakelite, with special attention given to details and ease of attachment to the Receiving Set. All metal parts are of brass and all connections are securely soldered. Guaranteed range of 150-750 meters. Easily adapted for use with regenerative circuit when used in place of variocoupler.



**List Price, \$8.00**

**THE EAGLE VARIOCOUPLER** is also constructed of genuine red moulded Bakelite with brass fittings. All 14 taps are taken off and securely soldered to a small panel, thus allowing ready connection to switch points on main panel. An absolute range of 150-750 meters assured.

We believe that Eagle products are superior to any others on the present day market, and are sure that once you sell our products you will realize that quality merchandise is the most profitable.

**THE MANUFACTURER'S UNQUALIFIED GUARANTEE BACKS UP EVERY SALE YOU MAKE**

*Liberal Discounts to Dealers*

## EAGLE RADIO MANUFACTURING CO.

858 Bedford Ave.



Brooklyn, N. Y.

# DRY CELL TUBE SOCKET BIG SELLER

The WD-11 Tube has converted numerous "Crystal" fans to the use of a Detector Tube. The 1 1/2 volt tube requires a special socket. Hence the

## BIG DEMAND

for this Genuine Bakelite Socket having springs of phosphor bronze. The special contact arrangement is a feature of the

## BRUNO 5 SOCKET

Dealers and Jobbers Write

Carlson Dunn Co., 26 No. Desplaines St., Chicago, Ill.  
H. T. Wrecks, 1308 Majestic Bldg., Detroit, Mich.  
S. H. Stone, 609 Chamber of Commerce Bldg., Pittsburgh, Pa.  
A. L. Handel, 2751 Detroit Ave., Toledo, Ohio

## BRUNO RADIO CORPORATION

152 West 14th Street New York, N. Y.



List \$0.75

## Your Store Your Best Ad

(Continued from page 15)

complete radio sets and parts exclusively. But many radio stores display only parts in their windows, thus conveying to the general public a false impression of their goods and their policy. Every wise dealer caters to two classes, to those that make their own sets and those that want them complete.

The window that has a miscellaneous assortment of radio parts is certainly calculated to draw the trade of those already interested in radio. It will draw few others. It appears obvious then that such a policy unduly restricts the appeal of the dealer's windows. To devote all one's efforts to attract the custom of those already interested in radio is to neglect the larger field of potential buyers upon which the broad appeal of radio should ultimately rest.

The large mass of people today has heard of radio and is in a receptive mood concerning it. With the excellent broadcasting being done at present, and with the intrinsic interest that radio possesses, this receptive mood should easily be converted into radio sales. Most individuals can be carried over from the passive state concerning radio to active buying through the sight of actual sets and through hearing actual demonstrations.

The window displays of the radio dealer should be the means for bringing the potential customer into the stores. This can be done by simplicity in window arrangement, above all. For the one great thing the dealers, and indeed everyone in the radio industry must combat is the idea that the art of radio reception is a difficult one to master. Simplicity of the arrangement of complete sets in the windows, is worth driving for.

The arrangement of counter-displays deserves the same amount of thought as the window dressing. One of the questions that has to be solved is: In what part of the store are the radio demonstrations to be held?

Here the radio dealer can take a leaf out of the note-book of the fifteen or the department store. These stores almost invariably have their music departments at the back of the floor. The reason is that the music draws the customer toward the music, but in the process of advancing toward the department where music is being purveyed, the customer sees other merchandise. So, in the case of the radio store the customer conducted

## THE LABORATORY TECHNICIAN SAYS:

Audibility ..... Plus  
Matching ..... Perfect  
Volume ..... Plus

### T-B-H PHONES SPEAK FOR THEMSELVES NO "FUZZ" OR "TINNY" TONE

Aluminum cases 6 ft. Cord weight 12 oz.  
Type 6-A 17500 Turns (2200 ohms) Hard Rubber caps ..... \$7.00  
Junior 16000 Turns (2000 ohms) Composition caps 5.00

Substantial Discounts to Jobbers and Dealers.

### THE TELEPHONE BOOK HOLDER CORPORATION

Dansville, New York, U. S. A.  
District Agents:  
Central States Engineering Company  
Chicago, Illinois



List \$5.00

# ASK OUR SERVICE BUREAU

## REAL DISCOUNTS TO DEALERS

on the following well-known and standard products

FROST  
GENERAL RADIO  
MASTER BALDWIN  
REMLER  
DAYTON

KING  
ESTRU  
GREWOL  
UNITED  
RADI-UN LOOPS

ALL TUBES IN STOCK

Our new catalog will be out March 5th. Write for copy

## WERNES & PATCH MASONIC TEMPLE

159 N. STATE ST., CHICAGO, ILL.

to the back of the store, sees on the way very attractive sets in mahogany and walnut. These are the first things that he sees and these make the strongest impression upon him as a consequence.

And in going out, the final impression that the customer carries away with him is of the things that he has seen last, these same well-made and attractive radio sets.

The most satisfactory arrangement of the interior of a store seems to be to display the complete sets and cabinets near the entrance with a gradual change into individual apparatus. This is logical for it is another way of showing the customer the set and then taking it apart and showing of what it consists.

The counters, moreover, should not be overloaded. Counters loaded with apparatus in a planless arrangement only confuse the customer, and thereby defeat their own object; creating the desire to possess and buy.

These are only some of the general principles of counter and window display. No one can attempt with profit to say how radio stores in general should solve these problems, for each store presents its own peculiar difficulties, arising from competition, locality, state of trade, prices and season.

It must be remembered, the dealer must convey through his windows the idea that he is giving quality at a reasonable price. Even the dealer who caters solely to the amateur class, which makes its own sets, gives an erroneous idea of his goods by displaying them indiscriminately in the windows. Vario-couplers piled on condensers, and aerial wire winding in and out of honey-comb coils subconsciously reflect on the store where they are thus displayed.

When apparatus is to be shown, the effort should be made to set off some particular part or emphasize the especially low price of another device.

**GRANT RIGHTS IN BRAZIL**

RIO DE JANEIRO.—A Brazilian new agency, the Sociedad Anonima Agencia Americana, has been awarded a forty-five year concession for the erection and operation of Brazilian radio-telegraph and telephone stations.

**PHILADELPHIA FIRM MOVES**

PHILADELPHIA.—Spiro Brothers, distributors and wholesalers, have recently moved from their offices in the Real Estate Trust Building to larger quarters at 218 North 13th Street. This concern has recently contracted for the entire output of the factory of Sunday and Scholtz, of this city, manufacturers of a high grade line of variometers and variocouplers.



WALCON  
R-F. TRANSFORMER  
175-500  
The Radio Centre New York

## WALCON

### Radio Frequency Transformer

THE BEST YOU CAN BUY

A Transformer that Guarantees Results  
Particularly suited for W. D. 11 Tubes.

List Price \$4.00

Manufactured by  
**THE RADIO CENTER**  
2 West Broadway New York

Dealers and Jobbers write for our attractive sales proposition backed by National Advertising.

# Trade-Marks Secure Trade

# Registrations Secure Trade-Marks

## I Secure Registrations

## CHAUNCEY P. CARTER

*Radio Trade-Mark Specialist*

4907 Potomac Avenue, N. W. Washington, D. C.

Correspondents in all countries

# RADIO

## DEALERS! Try Our Service

If you want REAL Radio Service, write for The Radio Virginian. It's Free.

We specialize in RADAK Receiving Sets, Western Electric Loud Speakers and Eveready Batteries.



## VIRGINIA RADIO CORPORATION

*Distributors*

Charlottesville Virginia



# Permanent Exhibit of Radio Parts at Atlantic City

Col. Mapes, managing director of the Permanent Radio Fair, New York City, announces an affiliation with the National Exhibitors, Inc., who maintain a permanent manufacturers exhibit at Atlantic City, N. J. at 1729 Board walk and also on Garden Pier.

The Atlantic City exposition will be open every day in the year and radio apparatus displayed there will be viewed by thousands of interested fans and would be fans from all over the country every week. The

exhibit in New York is drawing large numbers of buyers now, aided by the toy fair being held at the Hotel Imperial, where the Permanent Radio Fair is located.

Through the new affiliation, contracts for displays of radio apparatus signed for one exhibit will be effective for both places.

The Radio Fair plans considerable in the way of publicity and has some further interesting announcements to make at an early date, according to Colonel Mapes' statement.

## 3 Contests Go Big

(Continued from page 19)

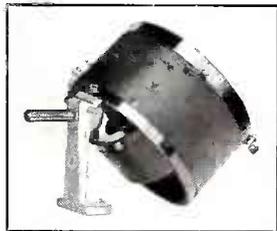
ing the Busch Hardware Co., 5745 W. Division Street, Chicago, Ill., and H. L. Miller & Co., of Pasadena, Cal. More than fifty dealers in other parts of the country won honorable mention for their efforts at window decoration.

The result of this contest, aside from the winning of awards, are far-reaching, for the competition has emphasized the importance of proper arrangement of windows as an advertisement of radio goods.

The prize letter contest for jobbers' salesmen, the second competition to be conducted under the auspices of the Manhattan Company, was also provocative of many entries, and the judges, after great deliberation and much study, awarded first prize to W. J. Teefey, a city salesman in the employ of the Richards & Conover Hardware Company, 433 South Benton Street, Kansas City, Mo. The second prize was granted to Charles A. Byers, salesman for Faeth Company, jobbers, of 1422 Appleton Street, Parsons, Kansas. Harry Goldstein, of the Lowe Motor Supply Co., 756 Garden Street, Hartford, Conn., won the third prize in this contest. The difficulty of selecting winners out of the shoals of praiseworthy efforts that this particular contest sponsored is evidenced by the fact that the judges saw fit to give honorable mention to thirty-three other contestants.

But the most popular contest of the three was for amateurs and indeed for anyone familiar with the qualities of Manhattan Red Seal batteries. Those who entered the competition had to finish the following sentence, giving a second reason for the superiority of these Manhattan batteries: "The Red Seal Dry Battery is best, (1) because it is the all-purpose Battery, and (2) because

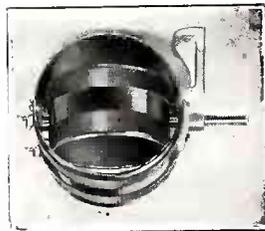
"Thirty Years of experience are back of its seal," was the way Louis Peine, of 1506 Rosalie Avenue, Houston, Texas, put it and won the first prize, a beautiful cabinet type receiving set. Ralph E. Turner, of 34 Dwyer Circle, Medford, Mass., who won second prize, gave as the second reason for Red Seal superiority, the fact that "it retains Nature's Energy under Seal." "Red Seal outside means more energy inside," was the way the third prize winner put it. He is W. E. Long, of 408 West Fourth Street, Sterling, Ill.



### A Wonderful Pair SHAMROCK

180°

Vario-Coupler  
and  
Variometer



All Tubes Are GENUINE BAKELITE  
wound with green silk covered wire

Distributors, Jobbers and Dealers write for  
ATTRACTIVE PRICES

SHAMROCK MANUFACTURING CO.

314-322 Market St.

Dept. T.

Newark, N. J.

Westphal's  
FLEXIBLE  
Spaghetti

## WESTPHAL'S SPAGHETTI

Black or Yellow

Grade "A"

(Samples Sent on Request)

10,000 feet lots, per ft. ....	3 cts.
5,000 feet lots, per ft. ....	3 1/4 cts.
1,000 feet lots, per ft. ....	3 1/2 cts.
500 feet lots, per ft. ....	3 3/4 cts.
Less than 500 feet, per ft. ....	4 1/4 cts.

Grade "B"

10,000 feet lots, per ft. ....	1 1/4 cts.
5,000 feet lots, per ft. ....	1 1/2 cts.
1,000 feet lots, per ft. ....	1 3/4 cts.
500 feet lots, per ft. ....	2 cts.
Less than 500 feet, per ft. ....	4 1/4 cts.

### RADIO PHONOGRAPH ADAPTER

The WESTPHAL ADAPTER fits phonographs and headphones of all makes. Constructed in one unit and does not require bushings. Acoustical chamber with single phone produces volume and tone not obtained in

### LOUD SPEAKERS.

List \$2.50—A Big Seller—Attractive Discounts

Westphal Manufacturing Laboratory

424 South Michigan Ave.

Chicago, Ill.

Fifty amateurs all over the country were given honorable mention and Manhattan headsets as consolation prizes.

The Manhattan Electrical Supply Co., Inc., were gratified both by the number of entrants in the various contests and by the quality of effort which these contests brought forth. The members of the company are in turn to be congratulated for launching these contests, which have done much to arouse public interest in things radio.

### Freshman Moves

The growth in their business has compelled the Charles Freshman Company, Inc., formerly of 97 Beekman Street, to move to newer and larger quarters at 106 Seventh Avenue, New York City. Production of Antenellas, Micon condensers, variable resistance leaks and other radio specialties manufactured by this firm is now on an increased basis. These exclusive radio products are meeting with an insistent demand on the part of radio buyers, which was responsible for the move to larger and more modern quarters.

### New Type of Variocoupler

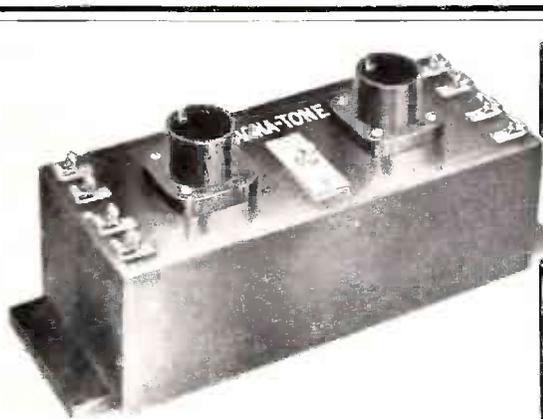
The Pioneer Radiophone Corporation of Galesburg, Ill., are producing a radio variocoupler which is inside-wound, on the same principle as a variometer.

As will be seen by the illustration, the rotor is enclosed by a spherical stator, the shell of which is made of molded bakelite. Internal resistance is reduced to the minimum by the use of a large size of wire and by the close coupling which this type of construction permits.

The relative position of rotor and stator is maintained positively by a unique type of cone-bearing on the shaft, in connection with what is known as the "riding-spring" contact.

The same company also builds a variometer to match this variocoupler. Both instruments are exceedingly attractive—their Circassian walnut-finish bakelite shells contrasting with the bright green of the silk-covered wire of the stator and harmonizing with the nickled brass hardware. Both are perfectly balanced on wave-lengths from 150 to 750 meters, and are stated to be producing remarkably fine, clear, long-range results.

**Ask Our  
Service Bureau**



Lift the switch and this **MAGNA-TONE** Two stage Amplifier is in operation with filaments under fixed control. Circuit is automatically rearranged for one stage by lifting the first tube—at the left. Size, 13 x 5 x 5½ inches. Ebony finish.

**JOBBERS AND DISTRIBUTORS**—There's a big demand for this radio essential. Write at once for our special proposition.

List Price **\$24**

### MAGNA INSTRUMENT COMPANY

340 West 42nd Street, New York City

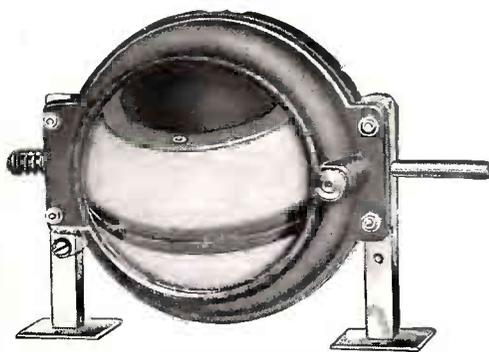
**MAGNA-TONE** Vacuum Tube Receiver—a radio set without fussy adjustments. Only two adjustments necessary. Provided with Fahnestock terminals which insure positive connections throughout. Size, 13 x 5 x 5½ inches. Ebony finish.

**DEALERS**—Radio fans want simpler apparatus. Here it is. Discounts are generous. Big sales reported. Get in touch with your Jobber.

List Price **\$16**



Catalog on Request



VARIOMETER

List Price . . . . . **\$6.50**



## The Finest Radio Apparatus

On the Market

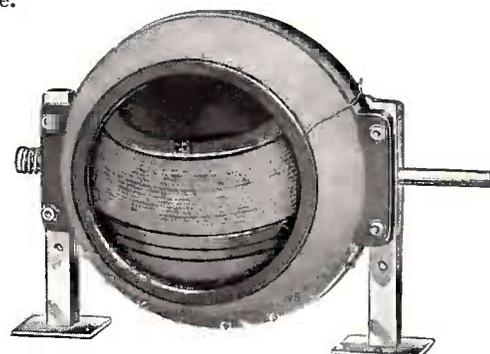
The apparatus manufactured by the Radio Products Mfg. Co. is recognized as the very highest grade, designed to meet the most exacting requirements. Each unit is made complete in our own plant from the **Redmanol** moulding to the winding, assembling and final testing of the completed instrument.

Twenty years in the electrical manufacturing field gives us the wide experience, equipment and specialized organization necessary to produce the highest grade equipment to be had in this line.

Write us for full information.

### Radio Products Manufacturing Co.

667 W. Fourteenth St.  
CHICAGO, ILL.



VARIOCOUPLER

List Price . . . . . **\$6.50**

**FLEWELLING**  
 All Parts necessary  
 Wholesale Only  
 Dealers: Write for Discounts.

**HUDSON-ROSS**  
 123 W. Madison St. Chicago

**SHELTONE**  
 LOUD SPEAKER

WITH ORIGINAL  
 NATHANIEL BALDWIN

Type C PHONES  
 Headset, complete, \$17.00  
 Unit . . . . . 11.00

Special Discounts to Dealers

The SHELTONE Co.  
 70 Halsey Street

**BERWICK SUPREME HEAD SET**  
 LIST, \$8.00

The Quality Product  
 100% Guarantee or Money Back  
 Write for Discounts

TRIANGLE ELECTRO TRADING CO.  
 632 Broadway New York, N. Y.

Manufacturers will find our Service Bureau an aid. Ask us where to buy.

Dealers Should Never be  
 "Just Out" of the

**BRACH**  
 vacuum

**RADIO PROTECTOR**

It Lasts for Years

Acknowledged by the most experienced engineers to be the best of all instruments for reducing static interference. Positively protects apparatus against lightning. In use for over 17 years.

Approved by the National Board of Underwriters.

Add to Your Line

**SOLDERALL**  
 A Metal in Paste Form

Insure perfect reception. All you need is a tube of this paste solder and a match to heat it. Results guaranteed equal to bar solder.

Sold by Leading Jobbers

**L. S. BRACH MFG. CO.**  
 NEWARK NEW JERSEY

Coast Representatives:  
 Pacific States Electric Co., San Francisco, Los Angeles, Oakland, Seattle, Portland, Spokane.

**Philco Radio Batteries**

To put into the hands of the radio enthusiast "A" and "B" batteries that are as fresh as on the day they left the factory has been the aim of the Philadelphia Storage Battery Company, Ontario and C Streets, Philadelphia, Pa. It is claimed that the Philco Drynamic line of batteries reach the user in a state as "fresh as the day they were Philco born."

Drynamic is the name given to the system through which this result is obtained. A Philco Drynamic battery may stay indefinitely on the dealer's shelves, but it will not deteriorate because it does not begin to charge until Philco electrolyte is added. As soon as the electrolyte is added, the Philco battery gives a 50 per cent. rated capacity without any initial charging, and a full capacity or over after a few cycles.

This system applies both to Philco "A" and "B" batteries. Other features of these batteries are the Diamond-grid plates used in their construction and the slotted retainers. The Diamond-grid plates are designed for great internal strains, eliminating buckling and warping. The slotted retainers are said to do away with the sloughing off of the plates by the active material in the battery.

**Announce Improved Process**

Further improvement in the composition of Radion, the hard-rubber material used in the manufacture of radio panels, is announced by the American Hard Rubber Company, 11 Mercer Street, New York City.

This improved product will henceforth be known as Resiston-Radion, Resiston being the trade-mark adopted and registered by the American Hard Rubber Company for sheet or moulding material compounded for electrical insulating purposes, including radio apparatus.

**Fishermen to Enjoy Radio**

Christiania, Norway.—The entire Norwegian fishing fleet, numbering more than 14,000 vessels, is to be equipped with radio telephones as soon as the big broadcasting stations now planned are erected. Application for license to establish such stations at Christiania, Bergen and Trondhjem has been made by the Norwegian Wireless Society, the Norwegian Marconi Company and the Norse Telegram Bureau. Listening-in sets will be rented to subscribers, but they will remain under the control of the State Department of Telegraphs.



**Ray-O-Vac "B" Batteries**  
 Sell other Radio Goods

Sell Ray-O-Vac "B" Batteries to your customers and the satisfaction they get will bring them back to you whenever they need other radio equipment.

Ray-O-Vacs do the work because they are built for radio service. The cells are specially adapted to overcome receiving noises. They are perfectly insulated and cemented into a single solid block with a firm, rubbery, acid-proof insulating compound.

They give a strong steady current, and build up instead of depreciate when not in use.

Spring clip terminals make perfect contact.

Your patrons get real value for their money in Ray-O-Vacs and they appreciate it. Use Ray-O-Vacs to build up sales on your entire line of radio goods. Send for Bulletin 225.



**French Battery & Carbon Co.**

Madison, Wisconsin  
 Chicago Dallas Atlanta New York  
 Denver Minneapolis Kansas City

**RAY-O-VAC "B" Batteries**

**Ask Our Service Bureau**

**COMSCO PRODUCTS**

W. D. II-SOCKET  
 U. V. SOCKET Single, Double & Triple  
 JACKS All sizes

Manufactured by  
 Commercial Screw Machine Products Co.  
 427-435 E. 102 St. New York, N. Y.  
 Telephone: Lenox 0256

YOU SHOULD KNOW ABOUT OUR

**AERWIN**  
 PRODUCTS

THE MILLS RADIO & ELECTRIC CO.  
 INCORPORATED  
 1008 Springfield Ave. Irvington, N. J.

### To Eliminate Aerials

A device that eliminates the need for outside or loop aerials, antenna plugs and that makes the receiving set really portable, has recently been introduced by the Short Cut Radio Corporation, 243 West Fifty-fourth Street, New York City.

This device, known as the Short Cut Antenna, resembles a dry-cell battery in appearance. There are two terminals at one end of the instrument, one of which is connected with the ground terminal of the receiving set, the other with the aerial terminal. A third connection on the other end of the device is attached to the ground.

The makers claim that all that is necessary to add to the working array of a receiving set is this Short Cut Antenna, which measures two inches in diameter by six inches in length.

The Short Cut Antenna is expected to be in great demand in apartment houses, where the construction of an outdoor aerial is inconvenient or not allowed, and elsewhere where aerials may prove unsightly. The device should become especially attractive during the coming vacation months, enabling the automobilist to tune in with ease on broadcasting programs while on long or short jaunts. Vacation pleasures, such as camping, boating and motor boating, should be particularly enhanced by the use of a receiving set without the bother of building up an aerial.

### Two Types of Sets

"Not a fad, but a social and business necessity," is the motto that has guided the Michigan Radio Corporation, Grand Rapids, Mich., in the construction of Michigan receiving sets and equipment.

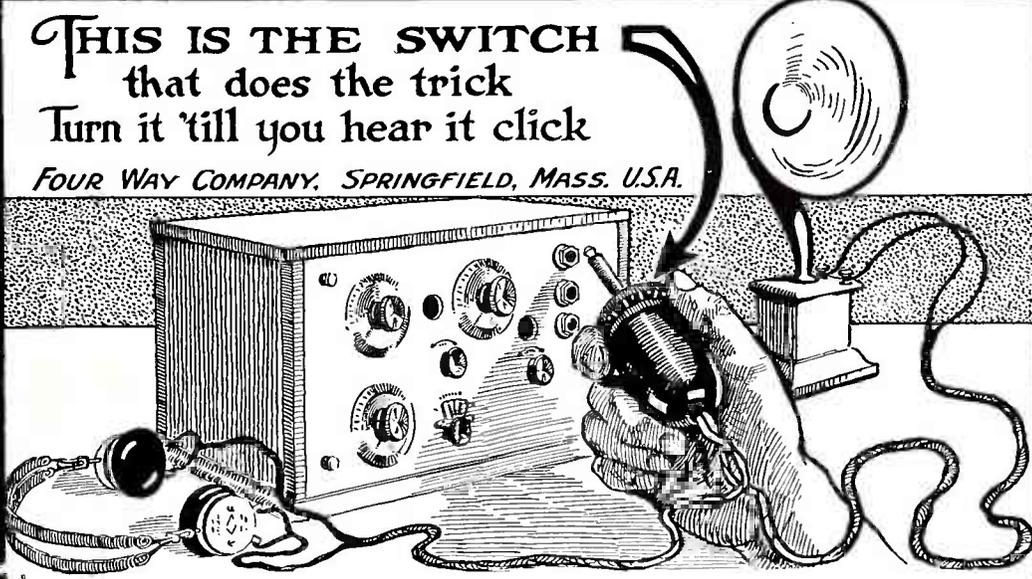
Two of the outstanding types of sets evolved by this company are the "Junior" and "Senior" regenerative radio receivers. The Junior is designed for use with headphones, but a loud speaker can be employed with the Junior through the addition of the Michigan two-stage amplifier. The Michigan Senior includes a tuner, detector, and a two-stage amplifier, the latter being specially designed to bring in full volume without distortion.

A patented Michigan "split hair" vernier dial adjuster is an exclusive feature of Michigan sets. This device permits the turning of the dial by fractional distances, resulting in fine tuning. It is said to solve the interference problem to a great extent.

The Service Bureau of The Radio Dealer will help you supply your wants.

**THIS IS THE SWITCH**  
that does the trick  
**Turn it 'till you hear it click**

*FOUR WAY COMPANY, SPRINGFIELD, MASS. U.S.A.*



**YOU must have a FOUR WAY Radio Switch Plug!**

—the latest and greatest improvement in radio.

\$1.50

Ask your dealer

Turn 1: Head Set

Turn 2: Loud Speaker

Turn 3: Both in Series

Turn 4: Both in Parallel

A switch plug that makes it possible to tune in through head set and switch in loud speaker by turning dial. Two head sets can be readily attached, or one head set and loud speaker. Both can be used at the same time or either one alone.



FOUR WAY Company

Dept. D, Springfield, Mass.



## ON AMPLIFIERS MICAPHONE MICA-DIAPHRAGMS

(Made for all Phones)

Eliminate Distortion  
Prevent Rattling, Fluttering or Whipping  
Do Away With Blasting  
Lessen Tube Squealing  
Cut Out Battery Noises  
Soften Static and Give  
Pure, Sweet, True, Tone

Satisfaction or Money  
back

Retail \$2.00 per pair  
To recognized dealers  
40% discount in lots of  
12 pair. Mounted on  
counter stand.

They cannot rust, cannot become bent,  
cannot get loose.

The rubber mounting makes them  
adjustable by simply turning the cap.

Thousands of pairs are now in use  
everywhere.

RADIO MICA PRODUCTS CO.

156 EAST 43d STREET, NEW YORK, N. Y.

# RADIO DEALERS! RADIO DEALERS!

We are in a position to supply dealers with standard merchandise at best discounts

**INITIALED BINDING POSTS**

 A BATTERY -	 B BATTERY -	 TELEPHONE	 ANTENNA
 A BATTERY +	 B BATTERY +	 TELEPHONE	 GROUND

PRICE 15¢ EACH      COMPLETE SET ONE DOLLAR

Manufactured and Distributed Exclusively by  
**IMPORT NOVELTY CO., Inc.**  
147 West 23rd Street Phone Watkins 6325 NEW YORK CITY

**DISTRIBUTORS FOR**  
Scranton Button Products  
Klosner Rheostats

We have for immediate delivery Spaghetti, Fada Type Switch Levers, Binding Posts, Jacks, Plugs, Framingham Rheostats. Rubber and Porcelain Insulators

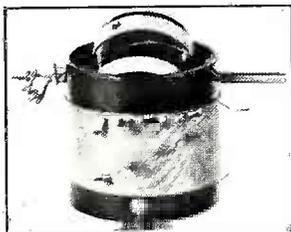
**IMPORT NOVELTY CO., INC.**

Mfrs and Distributors  
147 West 23rd St., N. Y. C.

## FOR THE FLEWELLING CIRCUIT

THE ORIGINAL

### GLOBE VARIO COUPLER



Replaces Honey Comb Coils and Mounting. Gives Wonderful Results Because It Embodies All the Specifications Recommended by E. T. Flewelling:

Rotor — Tubular, Bank Wound, 90 Turns, Loosely Coupled Stator—50 Turns

PRICE, \$3.00 LIST

**DEALERS AND JOBBERS:** Be the first to handle this wonderful instrument in your territory. Order now

**GLOBE RADIO EQUIPMENT CO., 288 E. Burnside Ave., New York**

We also make a variable Grid-Leak and Condenser specially adapted to this circuit List 25c.

## “WOODEHORN”

LOUD SPEAKER

**\$7.50**

List Price

**MOST STARTLING LOUD SPEAKER**

AT A

**MOST AMAZING PRICE**



Complete with Special Attachment for use in Connection with any Phone.

STANDS  
26" High  
10" Bell

“WOODEHORN” suggests without much effort the character of the Loud Speaker—“it's the wood that makes the tone good.”

If you would have the tones of a rare violin then do not hesitate to try a “WOODEHORN” Loud Speaker.

“WOODEHORN” was the hit of the American Radio Exposition. New York. Hear “WOODEHORN” before you stock loud speakers.

*Manufacturers, we will build horns according to your specifications*

**INTER-OCEAN RADIO CORPORATION**

Manufacturers

1140 BROADWAY, N. Y. C.

Liberal Discounts To Recognized Distributors and Dealers.

## Why Buy from Jobbers?

(Continued from page 17)

the dealer as does the banker; where credits are not based altogether on cold statements of assets and liabilities but rather upon an intimate knowledge of the man. Would any dealer in Springfield, Illinois, negotiate a loan at a bank in New York? Certainly not; nor could he if he wanted to.

The purchase of merchandise is no different than making a bank loan, in fact, it is a loan of merchandise, which is money. Only the jobber who is constantly in actual personal touch can make these daily loans, so to speak, to the dealer, and with which assistance the dealer is able to make many more turnovers during the year than he would otherwise be able to.

The matter of quick delivery of merchandise is just as important to the dealer as other considerations, and shipping distances again enter into the matter to prohibit a direct dealing between the manufacturer and the dealer.

The idea that the dealer could purchase direct from the manufacturer and save the jobber's discount for himself, or in other words, purchase direct at jobber's discount is a fallacy. Were a manufacturer to eliminate jobbers he would practically speaking have to become a jobber himself. Opening thirty to forty offices and warehouses in every strategic distributing center, and hiring a staff of salesmen and managers. Unless the product was one involving vast production and distribution, such an enterprise would increase the cost of distribution—not lower it because the average jobber rarely makes more than 20% gross on his items of which he has many, and can exist only by virtue of the fact that he carries a large and varied line. A manufacturer could not do business on 20%, and pay all the expenses and commission incidental to distribution of just one product or line, and so once more

(Continued on page 70)

**ATWATER-KENT**

DISTRIBUTORS

(Wholesale Only)

Dealers: Write for Discount

**HUDSON-ROSS**  
123 W. Madison St. Chicago

**For Fine Tuning**

Specially adapted to permit the tuning-in of far-off broadcasting stations without interference from local stations, the Bunting Condenser, made by the Bunting Stamp Company, Inc., 713 Liberty Avenue, Pittsburgh, Pa., is designed to appeal to the radio fan annoyed by intruding stations.

The Bunting patented condenser has undergone a series of improvements in the hands of capable engineers and the instrument now ranges from .00009 to .00175 mfd. capacity. It has a fine adjustment and an absence of body capacity, thus permitting easier tuning. For the elimination of local stations, while the operator is trying to listen-in on outside programs, the use of two Bunting condensers is recommended, one being inserted in the aerial circuit, the other across the secondary.

This arrangement brings the desired result, as the following letter from a Pittsburgh fan shows: "I am able to tune up in WGY, of Schenectady, New York, while WCAE, KDKA and WJAS, of Pittsburgh, are operating."



\$ 5.00

List  
3000  
Ohms

\$ 5.00

List  
3000  
Ohms

"True-Tone"  
SUPERSENSITIVE  
3000 Ohms

Cord Connections concealed within phones, eliminating losses from effects of body contacts.

Cups and caps lustrous black moulded; caps designed to comfortably fit the ears.

Worth More—Cost Less

\$ 5.00

LIST  
3000  
Ohms

EMBODYING every factor of Scientific design. High sensitivity attained by maximum wire turns.

PERFORMANCE and Appearance—backed by a positive guarantee of Quality. Tungsten Magnets; noiseless Tinsel Cords.

Write or Wire for Name of TRUE-TONE Jobber in Your Territory

TRUE-TONE RADIO MFG. CO.

186 No. La Salle Ave. CHICAGO, ILLINOIS

THIS IS STATION

M. E. P. C.

Station of { Atlas Amplitone Loud Speakers & Atlas Head Phones  
Multiple Electric Products Company, Inc.

W. H. V. announcing.

We are pleased to inform our friends of our good fortune in securing the services of the nationally known radio engineer and foremost expert on acoustics, Mr. Benjamin F. Miessner, who will head our laboratory forces. Mr. Miessner's extensive experience in radio will insure continued perfection and improvement in our output.

We have considerably increased our output of our Atlas Amplitone Loud Speakers and Atlas Head Phones to meet the tremendous demand which both our loud speakers and head phones are enjoying.

The Atlas Amplitone Loud Speaker does away with the requirement of extra battery, extra tubes and otherwise expensive equipment that is essential in loud speakers with power amplification.

The ATLAS AMPLITONE LOUD SPEAKER is a leader of any loud speaker on the market today, irrespective of the price, design or principle. Here is a loud speaker that will delight the most exacting with its pure, exquisite tone, originating in the patented construction of a double composition diaphragm.



Musical and vocal sounds are reproduced with a mellow quality, giving broadcasted reproduction, life-like distinctness.

The Principle of the ATLAS AMPLITONE is made effective through a sensational new patented invention, supported by high grade materials with expert workmanship employed in its construction.

We offer you this loud speaker complete with well designed horn of pleasing finish, sound base, and horn attachment for \$25.00 F. O. B. our factory, Newark.

The ATLAS AMPLITONE UNIT without horn and base but with Graphonola attachment, converts any standard phonograph, except the Brunswick, to the highest grade of loud speaker.



The ATLAS AMPLITONE UNIT enables you to economize both in expenditure and in the space occupied by your equipment, assuming that you already have a base and horn or you want to make from your phonograph an efficient loud speaker.

The ATLAS AMPLITONE UNIT we offer for \$12.50 each, F. O. B. our factory, Newark, and our Graphonola attachment will cost you \$1.00.

We offer our ATLAS HEAD PHONES, highest grade quality phone on the market to-day for \$9.00 each.

Jobbers and Dealers wire or write for proposition

Radio Division MULTIPLE ELECTRIC PRODUCTS CO., Inc.

4 ORANGE ST., NEWARK, N. J.

**The Most Talked-About Radio Specialty of the Day**

Dealers tell us that, of all the hundreds of items they sell, the clever little

**"CHASLYN" Sink-or-Swim BALL BATTERY TESTER**

gets the most free advertising. Every buyer becomes a "Chaslyn fan," spreading the good news far and wide, about the new, quick, clean, safe way of testing battery acid by the way these little "Chaslyn" balls sink or swim.

Set including Ball Hydrometer, Depth Gauge, and Rubber Bottle Stopper, retails at \$1.00. Dealers! Send a dollar for two sets, special introductory offer.

THE CHASLYN COMPANY  
4315 Kenmore Ave., Dept. 2,  
Chicago, Ill.



**Superior Audio Transformer**

The Superior Audio Transformer is the latest addition to the lines of radio products made by the Superior Products Manufacturing Company, 1080 Springfield Ave., Newark, N. J.

The instrument is designed to work on the straight line of the characteristic on either strong or weak signals. The ratio is 4½ to 1. Primary winding is random wound of high-grade enameled wire and is of a size sufficiently large to insure against burn-outs. The primary has a reactance of 30,000 ohms; the secondary is random wound and untuned. It gives a flat top amplifying characteristic from 150 to 2,000 cycles.

The core and bobbin is impregnated in a special insulating compound to insure uniform operation under all conditions. The complete transformer is then imbedded in a solid block



The Superior Transformer

of insulating compound, proof against moisture. The top and bottom panels are of machined black or mahogany radion, shell or triple nickel-plated brass tubing, hard rubber binding posts with nickel-plated washers.

This transformer is unique in that when a certain amount of energy is dissipated in the secondary, new energy is at once supplied from the source to compensate for this loss.

Another condition of particular importance in the reception of very loud signals is to operate the iron in the core on a portion of its characteristic which is perfectly straight. In other words, sufficient iron should be put in the core so that it never reaches saturation thereby causing enormous losses and distortion. In a like manner too much iron will cause the same type of distortion because only for certain loud tones will it reach its proper magnetizing point. These and other conditions are successfully met by Superior products.



TYPE 209 DETECTOR | TYPE 309 AMPLIFIER  
LIST \$18.00 | LIST \$25.00  
RADIO RECEIVING SETS FOR 1½ OR 6 VOLT TUBES  
IMMEDIATE DELIVERY  
Distributors, Jobber and Dealers Write for ATTRACTIVE DISCOUNTS  
W. B. L. RADIO CO.  
22 Norfolk St. Newark, N. J.

**COMPOSITION**

LIST PRICE

**DIALS 50¢ DIALS**

Adjustable Switchlevers

Knobs

**NEW YORK RADIO-DIAL CO.**

316 Holden Bldg. Detroit, Mich.

**Maclite Vario-Coupler**

Price \$5.00

Is, in the opinion of experts, the most efficient on the market.

All Other Maclite Parts are equally efficient, including the Maclite Variometer, Double Slide Tuner, Variable Condensers and Crystal Detectors. The Maclite Single Tube set at \$25.00 is the best buy we have ever seen. Let us tell you more about this set, also all other Maclite parts.

Dealers and Jobbers Write for Discounts

**MACLITE RADIO CO.**

701 Maclite Bldg., Claredon St.  
Boston, Mass.

**LOUD SPEAKER FOR ANY CRYSTAL SET**



The Steinmetz Amplifying unit selling for \$8.50 will enable you to hear any crystal set all over the room. No storage battery required. All Steinmetz equipment is thoroughly guaranteed.

STEINMETZ 3000  
Ohm Phones....\$6.50  
STEINMETZ 2000  
Ohm Phones.... 5.00  
STEINMETZ 1000  
Ohm Phones.... 1.75  
Equal to any \$10.00 or \$12.00 Phones Made

"Superior" Crystal Set, \$4.75  
Complete catalogue 5c at your dealer or  
STEINMETZ WIRELESS MFG. CO.  
5706 Penn Ave. Pittsburgh, Pa.

**We Have Been Appointed  
SOLE DISTRIBUTOR  
for the genuine  
Nathaniel Baldwin  
Phones**

**For The Entire State of  
New Jersey**

We solicit enquiries from Radio Dealers and Jobbers to whom we are offering Liberal Discounts.

**RADIO SHOP OF NEWARK**  
76 Springfield Ave. Newark, N. J.

**RADIO MAILING LISTS**

12,400 Radio Dealers, covering U. S. by States, per M..... \$7.50  
1,614 Radio Manufacturers, covering U. S. by States, per list..... 15.00  
1,757 Radio Supply Jobbers, covering U. S. by States, per list.. 15.00  
260 Radio Stations, per list..... 4.00  
257 Manufacturers who make and assemble complete Radio Sets, per list..... 4.00  
25,000 Radio Amateurs and Managers of Radio Stations, per M.... 7.50

Ask for price list covering Canada and England. Send remittance with order.

**TRADE CIRCULAR ADDRESSING CO.**  
166 W. Adams Street Chicago

**Federal Standard**

Head Sets

are Nationally Advertised and endorsed by experts. Write for particulars regarding the full line of Federal Standard radio equipment.

Federal Telephone & Telegraph Company  
Buffalo New York



**MOON RADIO CORP.**

Manufacturers of  
**ULTRA-FINE RECEIVING SETS**

12 Diagonal St.  
Long Island City  
352 Seventh Ave.  
New York

**Ask Our  
Service Bureau**

**Send for FREE story**

Interesting, illustrated folder "How to get Greater Desk Efficiency" shows how to keep your desk cleared for action. Thousands of Kleradesks are giving entire satisfaction. Saves time locating, distributing or sorting papers. Takes less space than a tray. Sent FREE trial.

**Kleradesk**



**Free Mailing Lists**  
Will help you increase sales  
Send for FREE catalog showing details covering names of your best prospective customers. Counts and prices are given on thousands of different Mailing Lists.  
99% Guaranteed by refund of 5¢ each  
**Ross-Gould Co**  
538 N 10th Street St. Louis

## Schools Help Sales

### Live Dealer Ties Up with School Aids

By WILLIAM COLEMAN

The semi-annual radio exhibition of the pupils of a New York public school suggests a means of bringing radio before the public eye in other cities.

This successful event, the sixth of its kind to be held by the pupils of Public School No. 165, has been the means of displaying the work of the pupils during the past term in designing and constructing radio receiving sets. Among the types of sets displayed were pocket size crystal models, large cabinet size crystal sets, and vacuum tube regenerative receivers with amplifiers.

The mothers and fathers and relatives of these bright youngsters attended. Amazement was expressed at the quality of the reception of these instruments. Newspapers gave publicity to the exhibition.

In a smaller town than New York the papers would have given even more free advertising for radio as a result of such an exhibition.

Why not take advantage of such an opportunity as this? Get the manual training department of the schools in your city to give instruction in radio building. And if you are public-spirited enough, present prizes for the best sets made in different classes. The school board should be glad to cooperate and the newspapers will give you a lot of free publicity, because a school boy exhibition has always "news value."

If you want to add some punch, have a special prize for radio sets made by girls!

### Midget Condenser

The Chelton Electric Company, of Philadelphia, have put on the market a new midget variable condenser of a radically novel type, and have been forced to tax their production capacity to meet the mammoth influx of orders on this specialty. The Chelton line includes a complete assortment of parts for use in radio sets.

Ask Our Service Bureau

ESTABLISHED 1888

TRADE-MARK

## SENSORY CABINET UNITS

**HEINEMANN ELECTRIC COMPANY**  
*Manufacturers*  
 Radio Division Philadelphia, Pa.

# RADIO DEALERS:

Are You In Position to Get the Benefit  
of the National Advertising Campaign Now Running on

## M. P. M.

# Million Point Mineral

## THE WORLD'S GREATEST RADIO CRYSTAL

Makes a Crystal Set 100% efficient.  
Will not burn out or corrode.  
Sensitive at practically every point.  
Increases radius and audibility.  
Concerts heard over 600 miles.

The introduction of M. P. M. is revolutionizing the business in crystal sets. Don't take our word. Send for sample and test it.

### M. P. M. SALES COMPANY

Dept. RD

247 So. Central Ave., Los Angeles

## Why Buy from Jobbers?

(Continued from page 66)

does the jobber appear to be low price insurance rather than the opposite.

American industrial and commercial institutions are British in origin; early American trade and industry were simply British trade and industry transplanted. What American business is today, is that transplanted British industry, modified, developed, elaborated by the enterprise, the daring and business intelligence of American business men. The origin of the American jobber was therefore in England. In England the jobbers developed during the years of 1660 and 1760. This was a golden age in British business prior to the marvelous development which resulted from the Industrial Revolution. There was a tremendous increase in production and trade, domestic and foreign; new ways to market were opened up and commercial areas broadened.

The so-called jobber or middleman is the merchant who stands between the producer and dealer. Considered for long as unproductive the middle man won for himself the recognition of doing a task worth while. As a matter of fact, he has performed a great social service. It is through his enterprise, his initiative, his daring and courage that English wares entered foreign markets and multiplied in the home markets. As itinerant peddler, as merchant prince, as specialized salesman, in established markets, the jobber reached the position of importance where the producer was already dependent upon it. In questions of finance, in taking risks, in finding new markets, it was the jobber who led the way. It was the duty of these intermediaries to bring buyer and seller together, to assist in fixing prices, to test the goods for possible defect, to select for the purchase the quality and quantity he had bought, and to see to its proper delivery. Supplies equalized in times and places and made less dependent upon accidents of weather. economic life acquired a speculative quality, the modern categories of business rose. Business was born. The modern commercial organization has by no means shaken off the power of the jobber (or middleman). They have continued largely because they performed a necessary service, and partly because of the inertia of business.

There can be no question, however,

# Court Decision May Influence Radio Patent Suits Now On

(Facts explained by an attorney)

A decision of the Supreme Court of the United States, which was handed down recently, is worthy of note by all interested in the present situation in radio litigation.

The Radio Corporation of America has begun a large number of suits during the past year, of which seventeen or eighteen suits are now pending in various United States District Courts. As is well known, the Radio Corporation does not own the patents on which it sues, but claims its right to sue through a certain assignment of a so-called "right to exclude" the individuals sued. This form of assignment was recently brought in question in the case of Radio Corporation against Hohenstein, Liberty Appliance Corporation, et al., and in that case the District Court upheld it, for the reason that the Circuit Court

that the jobber would long since have practically disappeared if they were not really functioning economically.

A profound law governs the process of civilization. The law is that the civilized man tends to minimize the variable elements or the risks of his business, and is dependent more and more largely upon the use of clearly defined and intelligible means, the result of his own observation and of the widening experience of the race. Jobbers, like economic institutions, rise to meet a need. In general their services are most needed in a widely dispersed industry, with little local specialization in which the means of communication and transportation are poor and there is seasonal activity.

For in such conditions there are small lots at both ends of the process; commodities are collected by the jobber from many small sources and are distributed to many small dealers. Risk is his at all times, the financial burden of every filled storehouse to meet quickly ever changing local demands and conditions. He sells and buys upon his superior knowledge of demand and supply.

In general he must have a superior knowledge of the commodity of the supply and demand. He must have capital, he must have a storehouse. He is the buffer between production and consumption; he levels out the seasonal supply geographically and chronologically. The justification of the jobber is that by his activities, economies are realized and savings are made equal, at least to the returns which he receives.

et Appeals in Chicago has sustained the identical assignment in the Nye Tool Company case. From the decision in the Hohenstein case, an appeal was taken to the Circuit Court of Appeals in New York and this appeal is based chiefly upon the contention that the form of assignment in question is ineffective to give the Radio Corporation the right to sue on the De Forest patents, which were there in suit.

In the Hohenstein case, the Radio Corporation sued on two patents of Lee De Forest, numbers 841,387 and 879,532, both of which, it is set forth in the complaint, are owned by the American Telephone and Telegraph Company. The complaint further states that the American Telephone and Telegraph Company, without assigning the legal title to the patents themselves, conveyed to the Radio Corporation the right to exclude and to enjoin the defendant Hohenstein, individually, from practicing the inventions covered by said patents.

Charles J. Holland, of New York City, attorney for the defendants in the Hohenstein case, filed a brief in the Circuit Court of Appeals, the main contention of which is that the right to exclude individuals from the practice of the inventions in question and the right to enjoin them from such practice was an incident of the ownership of the patents themselves and inseparable therefrom. In other words, the patents themselves were the principal property and the right to injunction against infringers thereof was incidental to the ownership of the patent.

The form of assignment interpreted by the Supreme Court in the Nye Tool Company case, decided last week, was identical with that in the case of Radio Corporation against Hohenstein. This was admitted by the attorneys for the Radio Corporation when they recently appeared in the Circuit Court of Appeals in New York and secured an adjournment of the argument of the appeal in the Hohenstein case on the ground that the Nye Tool Company case was pending before the United States Supreme Court and that the same assignment was involved in both cases. In the light of this admission and of the contention raised by Hohenstein, the language used by Chief Justice Taft in deciding that the assignment of the Nye Tool Company case was ineffective and in dismissing the complaint in that case is very significant.

Judge Taft says: "The error in the position of the respondent and the court below is in a failure to distinguish between the property or title or interest in a patent capable of assignment and the chief incident of that property, title or interest, an incident which can only pass by assignment when attached to the right to make, use and vend. The Government is not granting common law right to make, use and vend, but it is granting the incident of exclusive ownership of that common law right, which cannot be enjoyed save with the common law right."

Following this reasoning Judge Taft decides as follows: "As the owner of the patent is not a party to this bill, the result is that on no ground can the bill of the plaintiff be sustained and that the motion to dismiss should have been granted."

# Not a Makeshift - But a Finished Product



**List \$7.50**

ONE PIECE MOLDED CONDENSITE  
CASE — CONDENSITE DIAL —  
NICKELED BINDING POSTS

which you will be proud to show to your most discriminating customer and which he will carry from your store with the feeling of having received his money's worth—

## **ACCURATUNE** **WAVE-TRAP**

A quality instrument, worthy of the name it bears, and one which will do anything any good wave-trap can do.

Don't let the public clamor tempt you into handling anything but a quality wave-trap. Order from your regular jobber. If he can't supply you, write or wire direct. The discounts are liberal.



845 Broad Street Newark, N. J.

Every Dealer

Every Manufacturer

Every Jobber

in

## THE RADIO TRADE

*Should be a member of*

# The Radio Trade Association

*Full details may be obtained at headquarters*

**The Radio Trade Association**

**1133 Broadway, New York City**

### Officers and Directors are:

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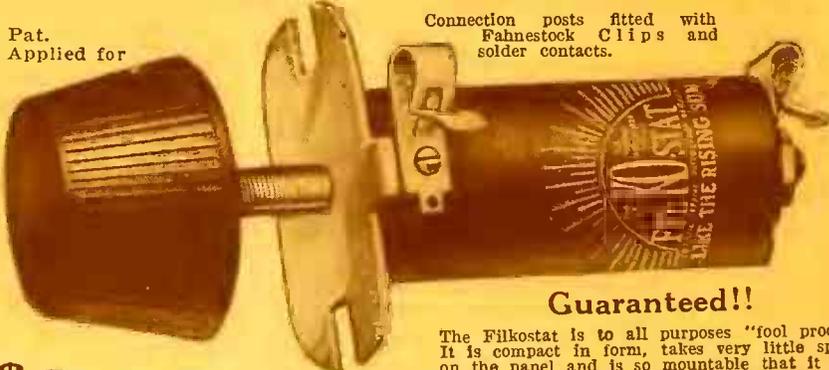
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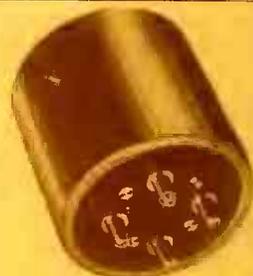


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W. Transmitter sets<br/>74 C. W. Filament heated transformers<br/>75 C. W. Inductances<br/>76 C. W. Power transformers</p> <p><b>E</b></p> <p>77 Contract work<br/>78 Control panels<br/>79 Condenser parts<br/>80 Copper wire<br/>81 Cords<br/>82 Cord tips<br/>83 Crystals<br/>84 Crystal detector units<br/>85 Crystal receiving sets<br/>86 C. W. Transmitter sets<br/>87 C. W. Filament heated transformers<br/>88 C. W. Inductances<br/>89 C. W. Power transformers</p> <p><b>F</b></p> <p>90 Diagrams<br/>91 End mountings (tubes)<br/>92 Engraving<br/>93 Electrotypes<br/>94 Fibre spools<br/>95 Fan switches<br/>96 Filter reactors<br/>97 Fixed condensers<br/>98 Fire extinguishers<br/>99 Filament rheostat<br/>100 Filter coils<br/>101 Flashlights<br/>102 Fuse terminals</p> <p><b>G</b></p> <p>103 Gaps, Spark<br/>104 Generators<br/>105 Glass<br/>106 Grid condensers<br/>107 Grid leaks<br/>108 Grid leaks, variable<br/>109 Grid coils<br/>110 Ground clamps<br/>111 Ground wires<br/>112 Ground switches</p> <p><b>H</b></p> <p>113 Headsets and bands<br/>114 Honeycomb coils<br/>115 Honeycomb mountings<br/>116 Honeycomb plugs<br/>117 Hook switches<br/>118 Horns<br/>119 Hydrometers</p> | <p><b>I</b></p> <p>126 Indicators<br/>127 Inductances, C. W.<br/>128 Insulators<br/>129 Insulation<br/>130 Invention developments</p> <p><b>J</b></p> <p>131 Jacks</p> <p><b>K</b></p> <p>132 Knock down units</p> <p><b>L</b></p> <p>133 Lead-in wire<br/>134 Lead-in switches<br/>135 Lead-in bushings<br/>136 Lead-in insulators<br/>137 Levers, Switch<br/>138 Lightning arrestors<br/>139 Lightning switches<br/>140 Loading coils<br/>141 Loading inductance<br/>142 Loose couplers<br/>143 Loud speakers<br/>144 Locked lever switches<br/>145 Lock nuts<br/>146 Loop aerials<br/>147 Lugs</p> <p><b>M</b></p> <p>148 Mailing lists<br/>149 Metals<br/>150 Magnetic modulator<br/>151 Modulation transformers<br/>152 Machine screws<br/>153 Magnet wire<br/>154 Magazines, Radio<br/>155 Mica diaphragms<br/>156 Mica condensers<br/>157 Mica diaphragm transformers<br/>158 Microphone transformers<br/>159 Milliammeters<br/>160 Milli-voltmeters<br/>161 Motors<br/>162 Motor generators<br/>163 Mounting coils<br/>164 Minerals<br/>165 Mountings</p> <p><b>N</b></p> <p>166 Name plates<br/>167 Nickel parts<br/>168 Nuts</p> <p><b>O</b></p> <p>169 One stage amplifier units<br/>170 Oscillation transformers</p> <p><b>P</b></p> <p>171 Panels<br/>172 Panel plugs<br/>173 Panel controls<br/>174 Paper tubes<br/>175 Patent registration</p> | <p>176 Patent wire<br/>177 Patent wire terminals<br/>178 Plans<br/>179 Phonograph attachments<br/>180 Plate condensers<br/>181 Porcelain<br/>182 Porcelain cleats<br/>183 Porcelain insulators<br/>184 Porcelain mountings<br/>185 Porcelain tubes<br/>186 Porcelain V. T. receptacles<br/>187 Porcelain V. T. sockets<br/>188 Precision instruments<br/>189 Polarity indicators<br/>190 Plate connectors<br/>191 Paste solder<br/>192 Phosphor-bronze wire sheets</p> <p><b>Q</b></p> <p>193 Quenching spark gaps</p> <p><b>R</b></p> <p>194 Radio books<br/>195 Radio schools<br/>196 Radio publications<br/>197 Radio frequency transformers<br/>198 Reactor, plate circuit<br/>199 Reactor, filter<br/>200 Receiving sets<br/>201 Receiving head sets<br/>202 Receiving transformers<br/>203 Receptors<br/>204 Receiver magnets<br/>205 Rectifiers<br/>206 Rectifying tubes<br/>207 Regenerative sets<br/>208 Rheostats<br/>209 Rheostat wire<br/>210 Rods<br/>211 Rotary lever switches<br/>212 Rotary spark gaps<br/>213 Rotary variable condensers<br/>214 Rubber parts<br/>215 Rotors</p> <p><b>S</b></p> <p>216 Safety switches<br/>217 Safety fuses<br/>218 Sliders and rods<br/>219 Sockets<br/>220 Soft metal<br/>221 Shielded dials<br/>222 Short wave sets<br/>223 Solder<br/>224 Solder, bar<br/>225 Soldering irons (electric)</p> <p>226 Spark transformers<br/>227 Spark coil selectors<br/>228 Spaghetti tubing<br/>229 Special apparatus<br/>230 Spark gaps<br/>231 Spring clips<br/>232 Storage batteries<br/>233 Sectional receiving sets</p> | <p>234 Switches<br/>235 Switch levers<br/>236 Switch points<br/>237 Symbols</p> <p><b>T</b></p> <p>238 Tapes<br/>239 Telephone cord<br/>240 Telephone plugs<br/>241 Telephone receivers<br/>242 Telegraph keys<br/>243 Telegraph teachers<br/>244 Testing instruments<br/>245 Testing clips<br/>246 Terminals<br/>247 Thermometers<br/>248 Tools<br/>249 Trade marks<br/>250 Transformers<br/>251 Transmitters<br/>252 Transmitting sets<br/>253 Towers<br/>254 Three coil mounting<br/>255 Tin foil<br/>256 Tuning coils<br/>257 Tubes, amplifier<br/>258 Tubes, detector<br/>259 Tubing, flexible<br/>260 Tube sockets<br/>261 Tubes<br/>262 Tuner and detector cabinets<br/>263 Two stage cabinets<br/>264 Two stage amplifier unit</p> <p><b>U</b></p> <p>265 Unit type receiving sets<br/>266 Unassembled sets</p> <p><b>V</b></p> <p>267 Vacuum tube sockets<br/>268 Variable condensers<br/>269 Varlometers<br/>270 Vario couplers<br/>271 Variable grid leak<br/>272 Vernier adjusters<br/>273 Vibrators<br/>274 Vocalouds<br/>275 Voltmeters<br/>276 V ulc an i z e d f i b r e sheets<br/>277 V. T. receiving sets<br/>278 Varlogrid leak<br/>279 V. T. detector units<br/>280 V. T. control units<br/>281 V. T. receptacle</p> <p><b>W</b></p> <p>282 Washers<br/>283 Watch case receivers<br/>284 Wattmeters<br/>285 Wavemeters<br/>286 Wave tuner<br/>287 Wire<br/>288 Wire, aerial<br/>289 Wire phosphor bronze<br/>290 Wire, copper clad<br/>291 Wire, magnet</p> |
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