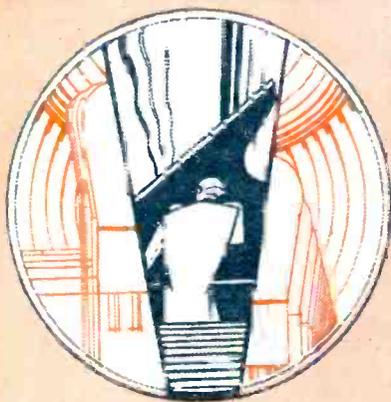


# Radio Retailing

*The Business Magazine of the Radio Industry*

A McGraw-Hill Publication

OCTOBER, 1929



## THE NEW GREBE

SUPER-SYNCHROPHASE

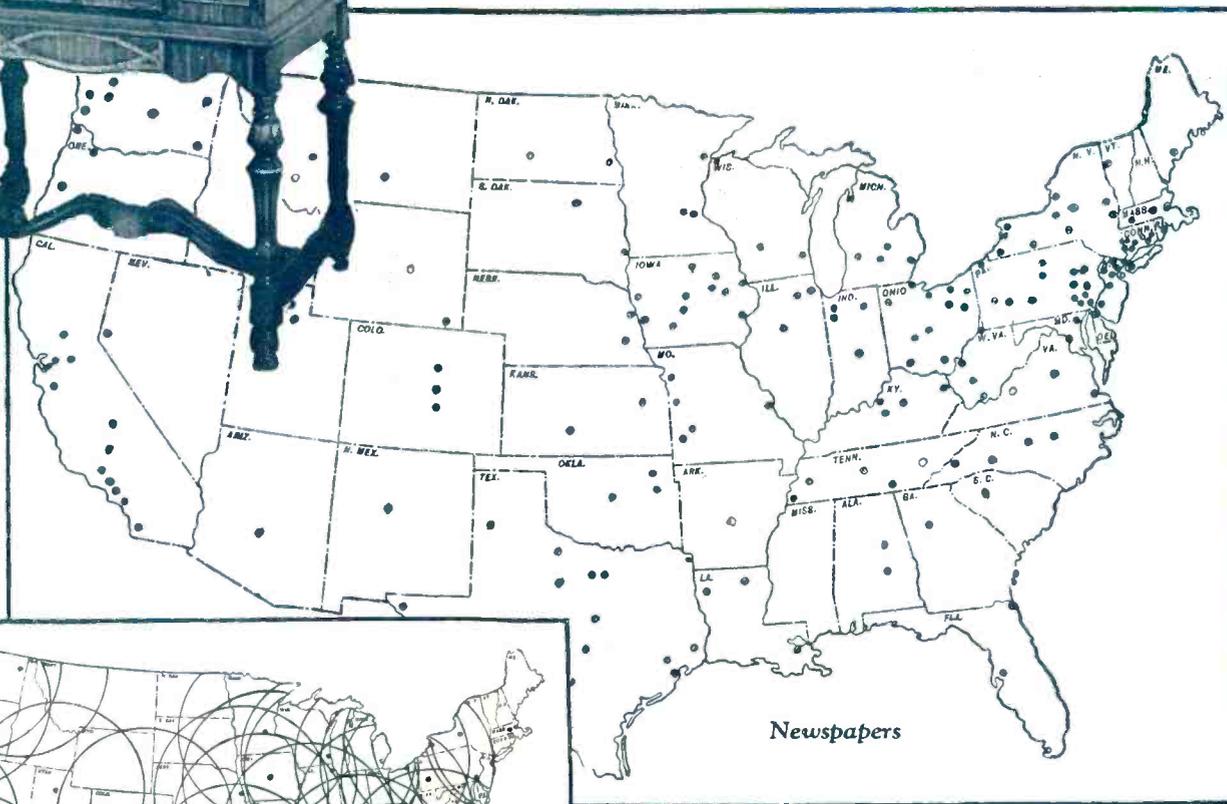
The only Screen Grid radio incorporating  
the Equalized Band Pass Filter — an  
exclusive Grebe Development.

**Grebe  
radio**

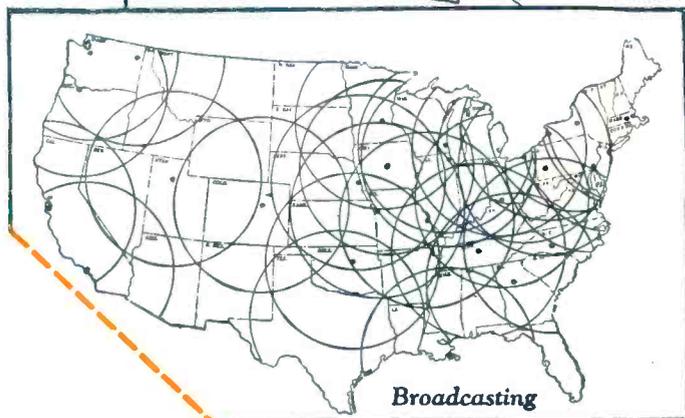
SUPER-SYNCHROPHASE

GET IT BETTER WITH A GREBE

# Brunswick's Winning March Across the Country



Newspapers



Broadcasting

Soaring to new heights, daily, in radio reception — Brunswick now brings to its franchise holders an additional business-building, profit-earning feature in its country-wide purchase of newspaper space and broadcasting service.

In the newspaper schedule, territory in all parts of the United States will be lapped and overlapped, so that no community will be without representation.

In the broadcasting, every home in the land equipped to receive "radio" can dial in the splendid programs Brunswick will put on the air.

For advance information how this combination "newspaper broadcasting" advertising and selling plan will increase our dealers' sales and profits and for detailed list of newspapers and broadcasting stations, send the coupon.

**THE BRUNSWICK-  
BALKE-COLLENDER COMPANY**  
New York, Chicago, Toronto  
Branches in All Principal Cities

The  
Brunswick-  
Balke-Collender  
Company

Gentlemen:

Send, quickly, your complete newspaper advertising and broadcasting station program with complete information how your dealers will benefit therefrom.

Name .....

Address .....

City .....

State .....

**Advance  
Information  
Coupon**

**Send it in  
Today**

!



To Help You

## Merchandise Broadcasting

THE double page spread in this issue, "More Sterling Programs Soon to be Broadcast," the table of evening chain program schedules on page 99, and the feature "What a Winter for Radio," on page 55 of our September issue were devised for use—not for light reading purposes.

Merchandise these remarkable air events this season.

Clip these pages—all four of them—mount them on cardboard—take them along when interviewing prospects—hang them in your window, or place them in conspicuous places in your store.

Put *Radio Retailing* to work. Make its pages sell broadcasting to your customers—and sets to your prospects.

# Radio Retailing

The Business Magazine of the Radio Industry

O. H. CALDWELL, *Editor*

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October  
1929

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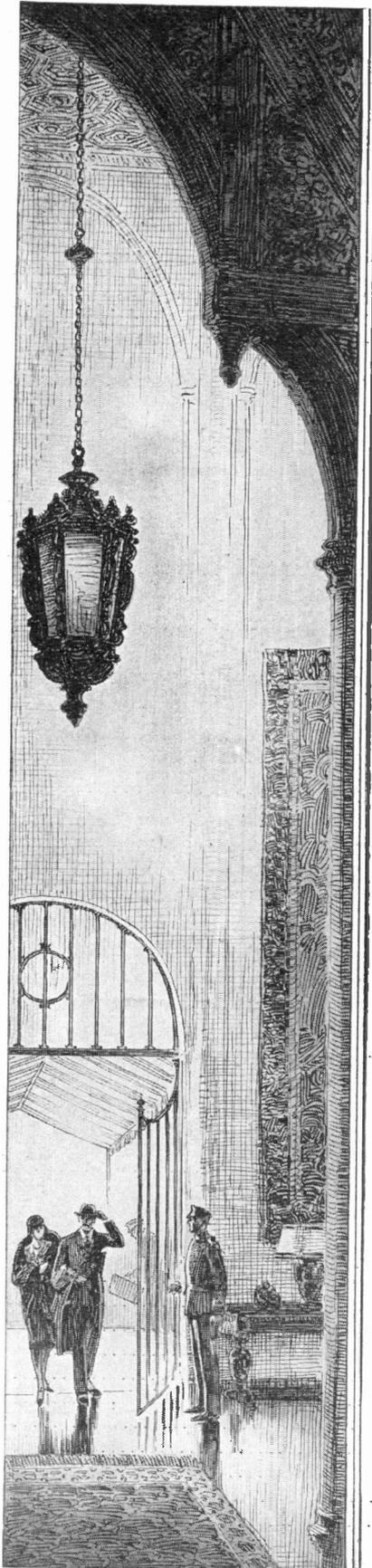
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MALCOLM MUIR, President  
JAMES H. MCGRAW, JR., Vice-Pres. and Treas.  
EDWARD J. MERRIN, Vice-President

MASON BRITTON, Vice-President  
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SAN FRANCISCO, 383 Mission Street  
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DETROIT, 4-257 General Motors Bldg.  
LONDON, 6 Boulevard St., London, E. C. 4

Member A.B.P., Member A.B.C. Printed in U.S.A.



## Stromberg-Carlson DEALERSHIP ATTRACTS THE FINEST TRADE

**A** SUBTLETY of shading... a richness in timbre... a musical ability indefinable, but, at once, *outstanding!* There is a certain indescribable quality to Stromberg-Carlson reproduction that appeals to critical ears.

Any Stromberg-Carlson dealer will tell you that in *tone* alone this set attracts the finest trade. Adding, too, intrinsic craftsmanship, readily appreciated; matchless physical charm, at once apparent; a Stromberg-Carlson becomes rightfully the choice of discriminating buyers.

It pays to sell radio offering this prestige! You benefit not only from the actual profits of every sale, but in the permanent satisfaction that comes from dealing with first class customers. Investigate *today*, the possibilities of a Stromberg-Carlson dealer franchise.

STROMBERG-CARLSON TELEPHONE MFG. CO.  
ROCHESTER, N. Y.

In the *better* stores... wherever the select patronage goes... There you will find Stromberg-Carlson, favorite of musical connoisseurs.

No. 846 Stromberg-Carlson.  
Built-in Electro-Dynamic  
Speaker. Uses a total of 10  
tubes, 3 of them Screen Grid.  
Price, without tubes, East of  
Rockies . . . \$347.50

Other Screen Grid Strom-  
berg-Carlsons \$155.00 and  
\$247.50.



# Stromberg-Carlson

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

# UTAH

## Forced to Grow!



**\$45.00**

### Utah Stadium Model 66-A

110 A. C. operation. Diameter over-all 12 1/4". Cone 10 1/2". Equipped with full wave high voltage rectifier—eliminating step down transformer—can be used on 25 to 60 cycles. No hum.

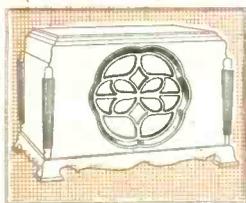
Built to meet the need of manufacturers, jobbers and dealers who feel the necessity of giving superior reproduction qualities to their products. . . Ideal for largest output—a superior speaker for home, theatre, large hall and outdoor use.

**A** GAIN we are compelled to materially increase our manufacturing facilities—due to the amazing volume demand for our Large Stadium Dynamic, the Balanced Shielded Dynamic, and the Balanced Power Inductor Speakers. This demand results only from our constant insistence on precision manufacture. That's why many leading manufacturers use Utah as standard equipment.

Overlooking nothing in its enlargement program—Utah has incorporated in its factory and offices the most modern radio equipment. This is a further provision for your protection an assurance of superior speakers at moderate cost.

*Don't disregard what Utah is doing—if you expect to retain a leading place in radio. Complete details on the entire line—table models and chassis—sent upon request.*

**UTAH RADIO PRODUCTS CO.**  
1737 South Michigan Ave., Chicago, Illinois



### Table Dynola Model

New Utah Balanced Shielded 9-inch Dynamic for 110 A. C. operation, \$55.00

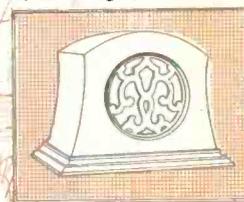


Table Mod-1 65  
New Utah Balanced Shielded 9-inch Dynamic for 110 A. C. operation, \$42.50



# TRIPLE SCREEN-GRID AMRAD



## The ARIA

**W**HAT tremendous value is represented in this leading model of the Amrad Bel Canto Series!

Within the exquisitely beautiful, tastefully proportioned console cabinet, richly veneered in butt walnut and African walnut, is the Amrad standard Screen Grid Chassis, using eight tubes including THREE Screen Grid tubes and two 245 tubes in push pull.

The interior panel is handsomely designed in Gothic inspiration with illuminated dial calibrated in both meters and Kilocycles. Has phonograph pick-up attachment, built-in antenna, Mershon condenser and full nine inch electric power speaker mounted on a baffle board.

Price at \$198

(less tubes)

Prices slightly higher West of the Rockies.

**A** hair-raising FIVE HUNDRED PER CENT increase in business in 1929 over 1928 makes us stop to think—and check up.

Why is Amrad selling FIVE TIMES as many sets in 1929 as in the preceding year? It isn't enough just to say the retail dealers are moving the goods. We know that. But WHY?

Possibly the answer lies in the critical analysis of all radio lines in comparison to Amrad which shows that the Amrad triple screen grid chassis is unexcelled in sensitivity, selectivity or ease of operation; the Amrad has a chassis of extremely heavy, fool-proof construction; that reports of trouble of any kind are practically non-existent; that Amrad cabinets constitute indisputably the finest furniture in the industry—and that due to a magnificent audio system, the world's best electric power speakers and special adjustments Amrad has the finest tone in radio!

*The Amrad franchise is valuable—let us send you the name of your nearest Amrad distributor—he can prove it.*

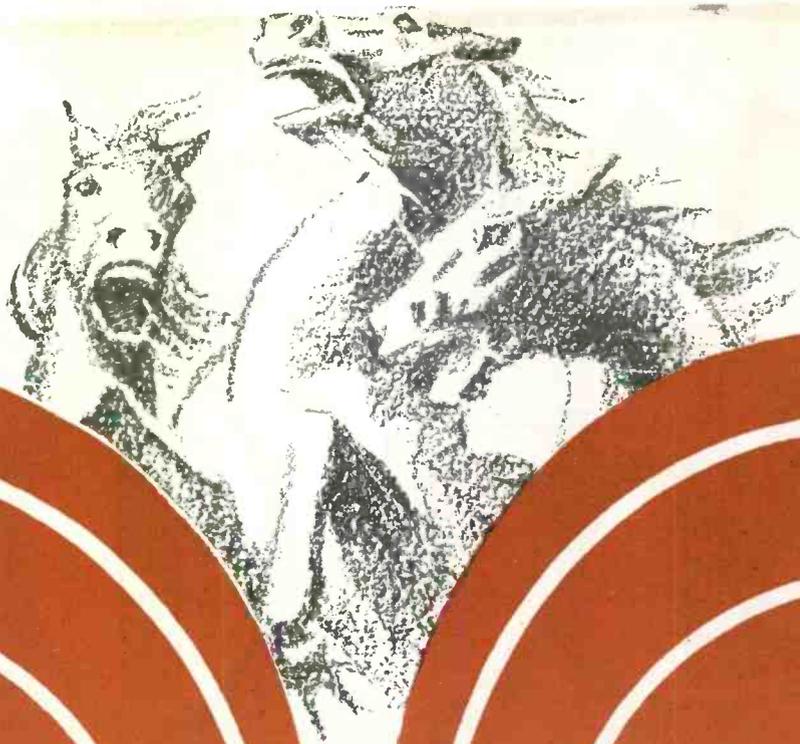
THE AMRAD CORPORATION  
MEDFORD HILLSIDE, MASS.

J. E. HAHN  
President

POWEL CROSLY, JR.  
Chr. of the Board

The **FINEST TONE** in RADIO..



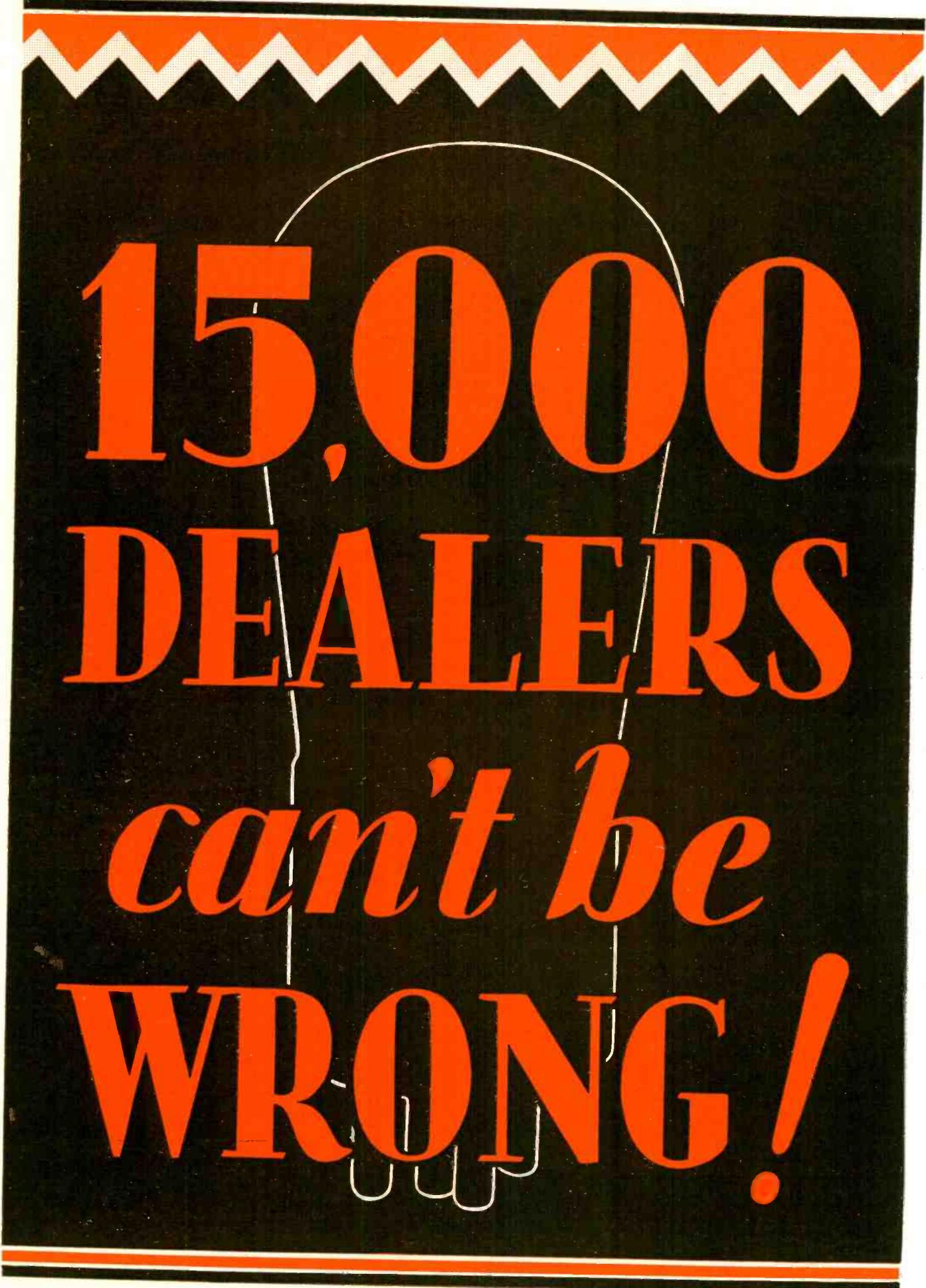


**THE NEW SEA-HORSES  
ARE COMING!**

**LOOK TO JOHNSON  
for revolutionary advances  
IN OUTBOARD MOTORS**

**1930 MODELS**

**SIT TIGHT UNTIL THE NEWS BREAKS**



**15,000**  
**DEALERS**  
*can't be*  
**WRONG!**

. . . 15,000 dealers participated  
in the

# SONATRON LIFE-TEST

*The most dramatic, convincing demonstration of tube quality ever staged!*

When Sonatron perfected a brand new instantaneous heating Y-227 A. C. radio tube it did not indulge in sensational claims. Instead Sonatron asked the radio dealers of America to render their own verdict.

15,000 radio dealers participated in Sonatron's nation-wide "Life-Test." This was no ideal laboratory test but a drastic acid test on dealers' floors under every conceivable condition, and in every make of set. The results offer convincing proof of longer life, finer tone and better performance of Sonatron's great new Y-227 A. C. tube. The "Life-Test" was an overwhelming success. From 15,000 dealers come daily testimonials to Sonatron quality—in words of praise—and in orders! *15,000 dealers can't be wrong!*

The tremendous demand for Sonatron Y-227 A. C. tubes and for all other Sonatron tubes is piling up a huge fall business for the Sonatron factories. Get in touch with your jobber today—line up with the tube line which is setting the pace in quality—and in sales!

SONATRON DIVISION  
NATIONAL UNION RADIO CORPORATION

1020 So. Central Park Avenue  
Chicago, Illinois

55-57 State Street  
Newark, N. J.

400 Madison Avenue  
New York City

Sonatron Radio Tubes are manufactured under a reciprocal licensing agreement with the Radio Corporation of America.

First National Radio Corporation  
254 W. 54th St., N. Y.  
Send an operating sample of the First  
National Radio—returnable if un-  
satisfactory.

Name .....

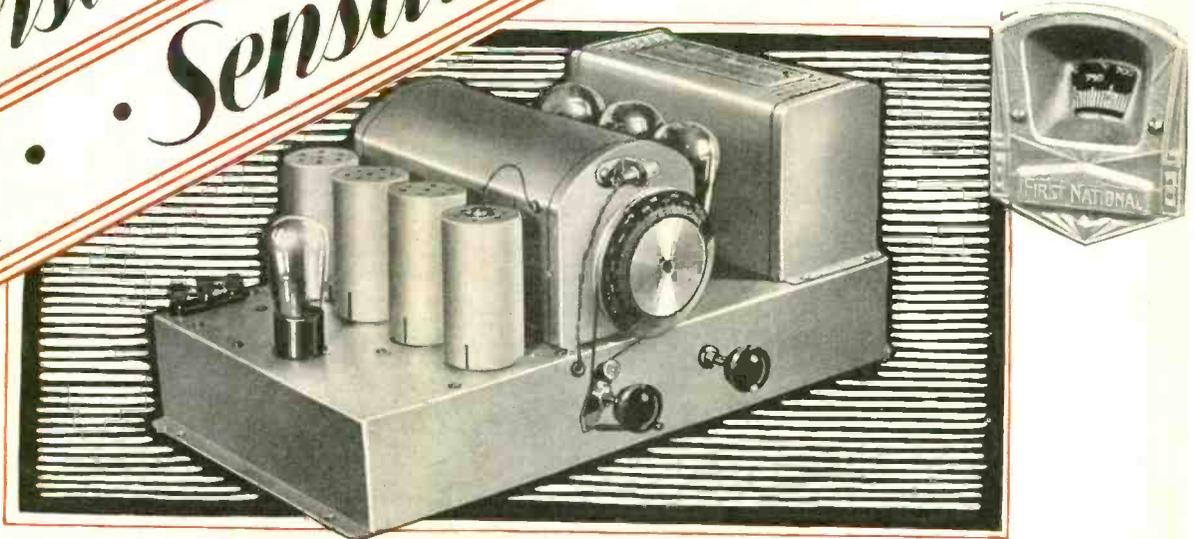
Address .....

City .....

State .....

# Sensational Radio Sensational Price

**\$75<sup>00</sup>**  
LESS  
TUBES



**H**ERE is an A. C. operated—8 tube—Screen Grid Receiver of truly sensational merchandising value!

Designed to be employed in cabinet supplied by the purchaser or as a table model in metal case supplied by the manufacturer.

A product of the Balkeit Radio Company and sold under exclusive contract through the First National Radio Corporation of New York City, this new receiver incorporates the most skilled radio engineering and the highest quality of parts and materials at every point.

The set is a seven-tube Neutrodyne employing three stages of tuned radio frequency, using 227 tubes, a tune detector using a 224

tube, and amplifier consisting of a 227 and two 245 tubes, rectification being obtained through a 280. The set is a true single control, having but two knobs, one of which includes the on and off switch and volume control, the other knob operating a station selector dial.

The First National Receiver is guaranteed to be free of defects in material and workmanship, this guarantee being backed by the Balkeit Radio Company under contract with the First National Radio Corporation.

**First National Radio Corp.**

254 West 54th Street, New York, N. Y.

Telephone COLumbus 4461

Licensed under patents of the R. C. A., Westinghouse, General Electric, American Telephone and Telegraph, Hazeltine Neutrodyne, LaTour and Lowell and Dunmore Power Pack patents.

*Dealers everywhere are featuring the First National as their leader this Season.*

*Write today for an operating sample or use the coupon herewith*



THE FIRST NATIONAL TABLE MODEL

# FIRST NATIONAL

A BALKEIT RADIO PRODUCT

## Receivers

# High Vacuum Leadership... Leads To *New Sales Heights*

## High Vacuum Leadership leads to new sales heights

THE remarkable sales records, being established by La Salle dealers, are due to just one thing—better reception.

And—in turn—better reception is due to *High Vacuum*—a La Salle feature.

Additional factors, that make for superiority, are the most modern of plants, in which, every tube is made complete—constant inspection and test to maintain uniformity—and over twenty years successful experience in manufacturing high vacuum products.

If you would attain leadership of tube sales in your vicinity—then feature and push La Salle High-Vacuum Radio Tubes.

### No Infringement on Patents

All La Salle High Vacuum Radio Tubes are manufactured and sold under license of the rights, patents and inventions owned and or controlled by Radio Corporation of America and associated companies.

### La Salle Radio Corporation

(Division of Matchless Electric Co.)

1540 North Ogden Avenue

Chicago, Illinois



# La Salle

## HIGH VACUUM RADIO TUBES



# SPARTON RADIO

*"Radio's Richest Voice"*

## FACE-TO-FACE REALISM

### A POWERFUL KEYNOTE IN RADIO SELLING

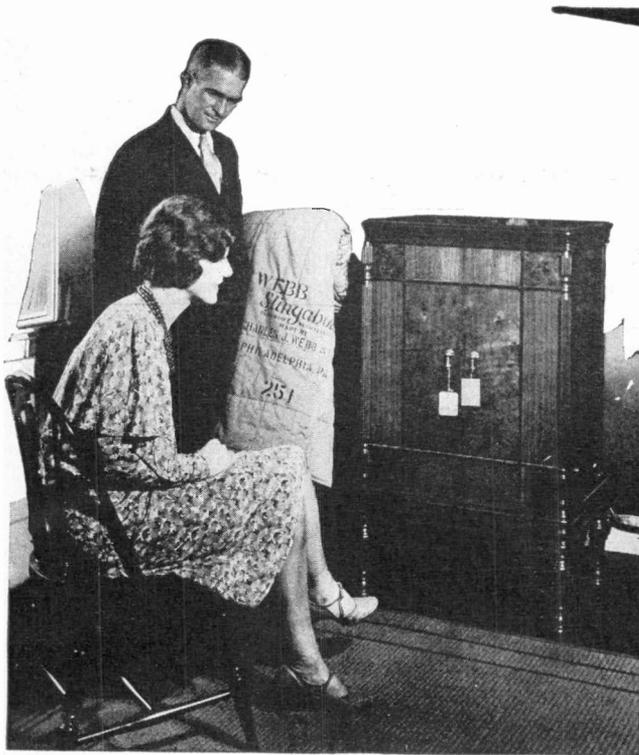
FACE-TO-FACE REALISM has proved itself to be probably the most spectacular sales appeal in radio today. The hold it has taken on public imagination . . . PLUS the ability of Sparton instruments to make good . . . has proved to be a gold mine for Sparton dealers. This year's powerful advertising campaign is just starting. Sparton dealers are due for even bigger things than last year.

THE SPARKS-WITHINGTON COMPANY (Established 1900), JACKSON, MICHIGAN, U. S. A.  
Pioneers of Electric Radio without batteries of any kind (377)



Model 301

The NEW SPARTON  
**EQUASONNE**



... its  
*beauty unmarred  
 by a single  
 scratch*

To your customer, the first appeal of a radio is not to the ear . . . but to the eye. How important, then, that the fine cabinet you sell should reach your customer with its beauty unmarred by a single scratch.

The Webb Slingabout insures clean, quick, safe delivery for radio cabinets. Its attractive appearance is thoroughly in keeping with the fine merchandise it protects. It is a guaranty of a favorable first impression when you place a radio cabinet in your customer's home.

*It greatly lessens depreciation in making home demonstrations.*

The Webb Slingabout is a heavily padded jacket, covering the four sides and the top of the radio cabinets. It is made of tough, battle-ship-gray canvas, thickly padded and quilted, and lined with soft, fleecy flannel. Easily slipped on and off, an adjustable strap at the back insures a snug fit.

Eliminate refinishing work on the radio cabinets you sell . . . reduce complaints . . . speed up deliveries . . . build good will . . . by using a Webb Slingabout for every delivery.

**CHARLES J. WEBB & COMPANY**  
 116 Chestnut Street  
 PHILADELPHIA, PENNA.

**S P E C I F I C A T I O N S**

The Webb Slingabout is furnished in the following standard sizes:

Slingabout No.	Inside Dimensions			Price
	Height	Width	Depth	
R-1	40"	28"	18"	\$5.00
R-3	50"	30"	20"	\$6.00
R-5	58"	38"	24"	\$7.00

If desired, your name and address will be stenciled on both sides of the Slingabout—without charge.



**WEBB**  
*Slingabout*  
 TRADE MARK REGISTERED

# The Quality of Hygrade Lamps is reflected in Hygrade Tubes



A reputation for quality cannot be acquired over night.

For twenty-nine years Hygrade has been building a reputation by making incandescent lamp bulbs which have satisfied the most critical users.

Experience in the manufacture of over 88 million electric lamp bulbs is almost priceless in the making of radio tubes, for the basic problems are similar. The quality of Hygrade Lamps is reflected in Hygrade Tubes.

## HYGRADE Radio Tubes

A Companion Product of Hygrade Lamps

HYGRADE LAMP CO., Salem, Mass.

Licensed under radio tube patents of Radio Corp., General Electric Co. and Westinghouse Co.

The Oscillograph tests Y-227 tubes for "hum." It is one of the devices by which the Hygrade Quality Department makes sure that the Red Triangle trade mark means "Tubes You Can Trust."

# How you can raise YOUR AVERAGE PROFIT *per Radio Sale*

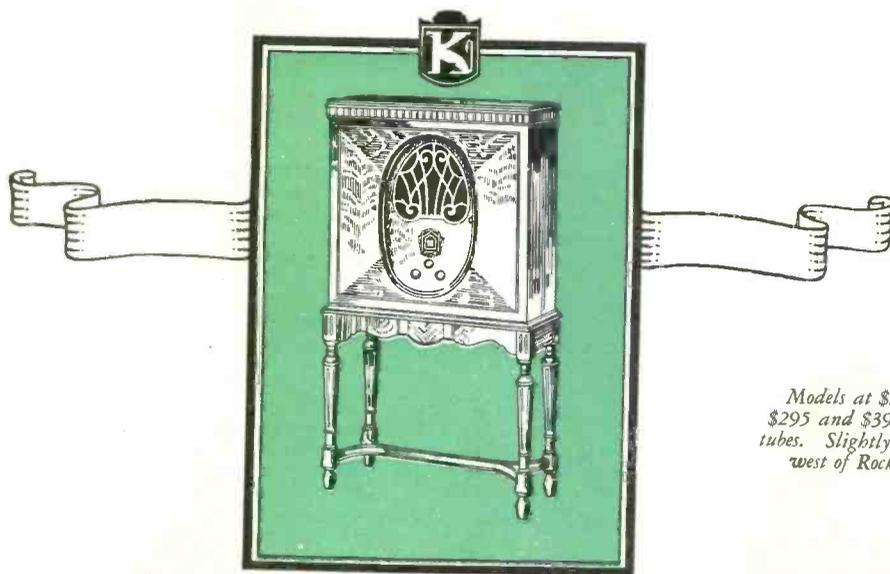
**B**E prepared to demonstrate a real *quality radio* to every customer who can afford something better than the sets built primarily for their price appeal.

What *is* your policy? Are you trying to convince such customers that there is "no better radio at any price" . . . and crowding your profits down to the minimum? Are you trying to satisfy them with merely an over-priced radio of ordinary qualities? Or, are you prepared with a Distinctive Radio . . . a set with exclusive and superior features that plainly justifies its higher price?

Kellogg is that kind of a radio. It is **DISTINCTIVE** . . . distinctive in its super-power; in Tone; in its beautiful cabinet work; distinctive in its exclusive Automatic Volume Control; and in its Sensitivity Control. The price for all this *extra* quality is surprisingly low—only a slight advance over the prices of radios built for "mass" selling.

If **YOU** are not handling Kellogg, there is still time to secure the line for the best part of the season and to increase your average profit per sale by a good margin. Wire us at once!

KELLOGG SWITCHBOARD & SUPPLY CO., CHICAGO



*Models at \$250,  
\$295 and \$395, less  
tubes. Slightly higher  
west of Rockies.*

## KELLOGG *Radio*

LICENSED UNDER R. C. A. PATENTS



## PHILCO adds to

The new Philco Screen Grid Plus embodies these five new super-features:

1. Automatic volume control, automatically reducing fading and blaring.
2. Entirely new circuit, which automatically reduces background noises including static. (And of course, no hum.)
3. Super-sensitivity, equalized over the entire dial, making it easy to get distant stations even in the daytime.
4. New super-sharp selectivity over the entire dial, bringing in distant stations even through strong locals.
5. Superior tone quality without blurring or distortion, even at almost auditorium volume—the result of the entirely new multiplex detector circuit.

Philco challenges any radio, at any price, to match these super-features, or to match the spectacular selling possibilities of this new Screen Grid Plus.

The Philco Screen Grid Plus is a nine-tube set built specifically for people whose radio requirements are unusual.

We are frank to say that many of its advantages are

not needed for normal use. But for the customer who wants the last word in radio or for the dealer who wants to give an unusually impressive demonstration of the possibilities of radio, this set is made to order.

Does it seem strange that the finest radio in the world—you will have no question of this as soon as you hear the new Philco Screen Grid Plus—should nevertheless be exceedingly moderate in price?

Such extraordinary value giving is possible only because the sensational success of the Philco Balanced-Unit Radio has made possible exceptionally large volume production and consequent manufacturing economies.

Whether you already enjoy the advantages of a Philco Franchise, or whether you are located in a territory where Philco is not yet represented, you are invited to write at once for complete particulars of the new Philco Screen Grid Plus, the finest radio in the world and a set which is going to be advertised on an enormous scale in magazines, in newspapers, upon billboards and through broadcasting.

### TECHNICALLY SPEAKING

The new Screen Grid Plus Philco is a radically new type of receiver. It has not only a new circuit but several other important new features, including an improved system of automatic volume control. It utilizes the full advantages, and overcomes the possible disadvantages, of the screen grid tube and in doing so achieves remarkable selectivity, long distance range, tone quality and ease of operation.

It is a nine tube set, using three 224 type screen grid tubes, three 227 tubes, two 245 power tubes and one 280 rectifier tube. The three screen grid tubes are used as radio frequency amplifiers in connection with the five radio frequency circuits. There are four tuned circuits and one untuned circuit. A double-tuned input circuit eliminates cross talk even close to the most powerful stations. This very selective antenna circuit, together with other design features, also filters out some of the interference disturbances and background noises heard with other receivers.

A new type of radio frequency transformer is used, giving remarkable selectivity and sensitivity at all tuning frequencies.

The detector circuit is a novel one. The usual detector tube has two functions: It detects, or rectifies, and it amplifies. A single tube cannot perform both these functions without some distortion or overloading. In this new Philco Screen Grid Plus two 227 type tubes are used—one as detector or rectifier, the other as detector amplifier. The plate and grid of the first tube are connected so that it functions as a true two-electrode rectifier, giving a super-power detector which is absolutely linear in response and cannot be overloaded, thus contributing to the clarity and fidelity of tone, especially at high volume. The detector amplifier functions solely as an efficient amplifier.

The audio system consists of a resistance-coupled 227 first audio tube and a transformer-coupled second audio or power stage utilizing two UX245 tubes

in push-pull circuit. The single audio transformer has a high-impedance primary winding and plenty of high-grade core steel, giving very fine frequency response characteristics. When used with the improved Philco Electro-Dynamic Speaker, this gives unsurpassed tone quality at both high and low volume.

The automatic volume control is an electric regulating system, associated with the detector and radio frequency amplifier.

When the receiver is turned on but not tuned to a station, the sensitivity is at a maximum, ready to pick up the slightest signal. This will, of course, bring in static and interference noises, if present. As soon as station signal is tuned in, the automatic volume control comes into play to reduce static and interference noises.

The automatic volume control reduces fading and, to a large extent, equalizes the volume of strong and weak stations to the level for which the manual control is set.



*its famous line a super-radio*  
**SCREEN GRID PLUS!**

*and invites you to share in its golden profit opportunities*



**THE PHILCO LOWBOY**

With Screen Grid Chassis . . . . . \$119.50  
 With Neutrodyne-Plus Chassis . . . \$129.50  
 With Screen Grid Plus Chassis . . . \$149.50



**THE PHILCO HIGHBOY**

With Screen Grid Chassis . . . . . \$139.50  
 With Neutrodyne-Plus Chassis . . . \$149.50  
 With Screen Grid Plus Chassis . . . \$169.50



**THE PHILCO HIGHBOY DE LUXE**

With Screen Grid Chassis . . . . . \$195.00  
 With Neutrodyne-Plus Chassis . . . \$205.00  
 With Screen Grid Plus Chassis . . . \$225.00

A table model is also available. With Screen Grid Chassis, \$67.00. With Screen Grid Plus Chassis, \$97.00. Mantel Electro-Dynamic Speaker, \$32.50.

Each model, regardless of price, includes a built-in genuine Electro-Dynamic Speaker with TWO 245 power tubes, push-pull. All prices less tubes—and slightly higher in Canada, Rocky Mountains and West.

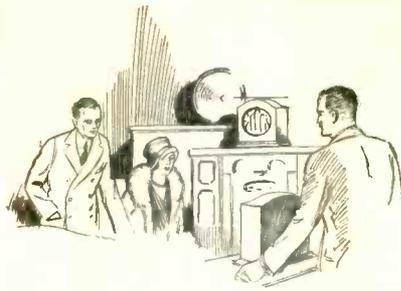
MAGNIFICENT FURNITURE—Cabinets are of the same surpassing quality and beauty that have made Philco admired by furniture

connoisseurs everywhere. They are planned by America's leading furniture designers and executed in handsome butt and Oriental walnut, bird's-eye maple and arbor-vitæ burl. Their beauty appeals instantly and is a powerful aid to quick, easy sales. Aerial is built in, for use where outside aerial is not convenient.

**PHILCO, PHILADELPHIA, P. A.**  
 Makers of the famous Diamond Grid Battery for Motor Cars, Telephones, Farm Lighting, Motive Power, Auxiliary Power, etc.



# Sell Symington Reproducers On Price!



*Let the PURITY OF TONE be the  
Customer's SUPER-VALUE BONUS*

THE SYMINGTON Electro-Dynamic is priced to sell at \$40 to those million set owners who still want a good Electro-Dynamic speaker at a price they can afford to pay.

The price attracts them because they can afford it!

But at that price they hardly expect to buy such amazing Electro-Dynamic quality as they find in the Symington Reproducer.

Any Symington dealer can sell dozens of Symington Electro-Dynamics on price alone . . . and let the Symington's crystal-like purity of tone be the customer's extra value bonus.

The Symington Electro-Dynamic Reproducer . . . in beautiful walnut cabinet. List Price, \$40

JOBBER AND DEALERS: If you haven't heard the Symington Electro-Dynamic made in Valley Appliances' famous One-Profit Plant, send for sample today. Made in A. C. and D. C. Models.

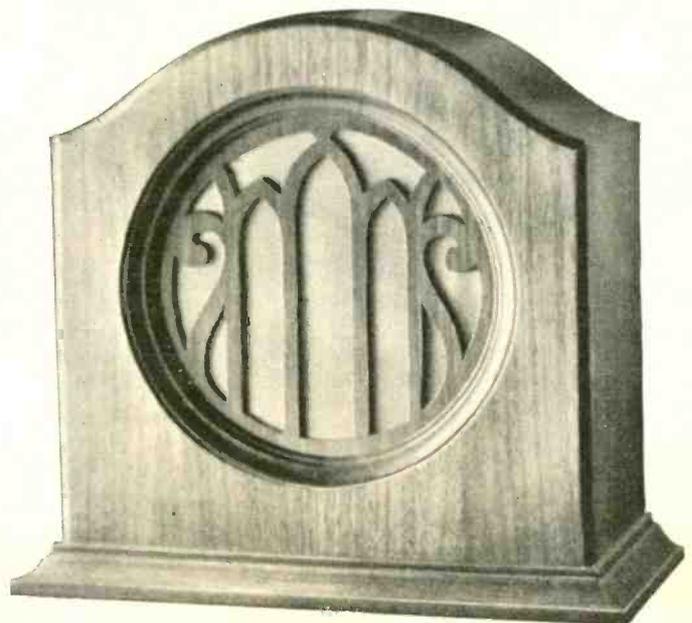


VALLEY APPLIANCES, Inc.  
Rochester, New York

## Symington

LICENSED UNDER LEKTOPHONE PATENTS

ELECTRO-DYNAMIC  
REPRODUCER





# The Big News

## RADIO TUBE MERGER LINKS 4 COMPANIES

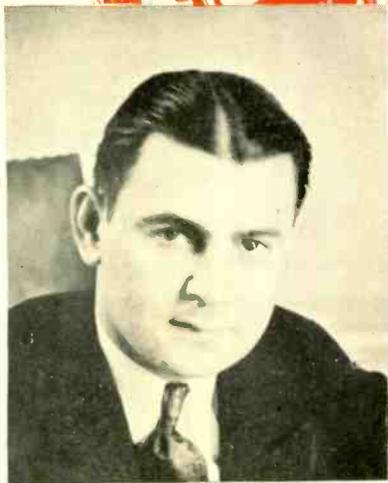
\$16,000,000 Corporation Will  
Add Other Independents,  
Sponsors Assert.

J. E. DAVIES HEADS BOARD

Ending of "Bootleg" Tube Sales Is  
Predicted—RCA Said to Be Allied  
With New Concern.

move to create a new unit in  
radio tube industry was an-  
nounced yesterday.

THE "NEW YORK TIMES," AUG. 24,  
devoted almost an entire column to the  
announcement of the National Union  
Radio Corporation.



"We'll give you the Finest Radio  
Tubes science can design."

SAYS

NATHAN CHIRLESTEIN  
Executive Vice-President



"A Fair-play-to-all  
Sales Policy."

ASSURES

E. A. TRACEY

Vice-President  
in charge of Sales and Advertising

**HERE IS THE START!**

*These Four Brands  
are now in:*

SONATRON

MAGNATRON

MARATHON

TELEVOCAL

# NATIONAL UNION

# is Out!

Newspapers From Coast to Coast  
Herald the Entry of a New Giant  
Into the Tube Business . . .

---

**N**ational **U**nion **R**adio **C**orporation

*takes its place beside R. C. A. and Cunningham  
. . . experts now forecast the end of  
present chaotic trade practices*



On August 23rd at 4:10 P. M. the final papers were signed . . . a clerk released the news to 1100 newspapers . . . the National Union Radio Corporation had at last become a fact!

The radio editors of a big New York paper describe it as "The most important radio news this year."

A prominent jobber from Chicago wired—

"National Union will do much to stabilize the radio tube business."

Retailers the country over are greeting the news with enthusiasm.

National Union with a capacity of 75,000 tubes a day becomes one of the three largest manufacturers of radio tubes in the world.

Capitalized at \$16,000,000, lack of money will not handicap its development.

Directed by a group of the country's ablest radio executives, it should quickly win a position at the head of the radio industry.

Through a reciprocal agreement with R. C. A., National Union will have the benefit of every important existing radio patent.

Look for big things from this new organization. Look for the fairest trade practices in the business. Look for the finest tubes science can devise.

More big news will follow during the next few months. Watch the next issue of this magazine.

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# RADIO CORPORATION

# These stories of National Union

*were read by millions  
of Radio Fans*

[[ *Read these newspaper quotations*  
*—they contain NEWS for you!* ]]

“ . . . The nucleus of the new company will be four tube manufacturers—makers of Sonatron, Marathon, Televocal and Magnatron tubes. The daily production capacity of the combined companies is from 75,000 to 100,000 tubes. . . . ”—Buffalo, N. Y., *News*.

“ . . . Joseph E. Davies, former head of the Federal Trade Commission, has been elected Chairman of the Board. Other directors include Paul M. Mazur and Sylvester W. Muldowny of the banking firm of Lehman Bros. . . . ”—Los Angeles, Cal., *Express*.

“ . . . Relationship with the Radio Corporation will give National Union Radio Corporation the benefit of all laboratory developments and research of General Electric Company and Western Electric Company, with which R. C. A. is affiliated. . . . ”—Barrons, *The National Financial Weekly*.

“ . . . The consolidation means that radio users will be able to buy dependable tubes of additional brands at reasonable prices without any uncertainty as to tube performance. . . . ”—Fort Wayne, Ind., *News-Sentinel*.

“ . . . A careful selection will be made to bring into executive and directorial positions in the new corporation a group of outstanding industrialists, administrators and financiers. . . . ”—Clarksdale, Miss., *Register*.

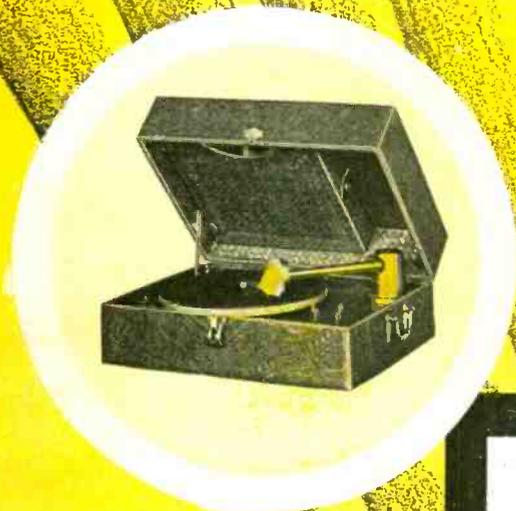
“ . . . It is expected that other tube manufacturers later will be drawn into the corporation, with their exclusive patents thrown into the pool. . . . ”—Salt Lake City, Utah, *Deseret News*.

“ . . . The creation of the National Union is based upon reciprocal licensing contracts with the Radio Corporation of America, under which each is authorized to make tubes covered by the patents of the other. . . . ”—Boston, Mass., *Post*.

“ . . . Plants of the companies forming the National Union Radio Corporation are located in Chicago, Ill., and also in Newark, Hoboken and Union City, N. J. . . . ”—St. Paul, Minn., *Pioneer Press*.

# The PLUS SALE for The Radio Dealer

NEW CARRYOLA PRODUCTS BRING NET PROFITS



### THE ROTROLA

List \$45 Price

Every radio owner on your books is an instant prospect. It plays phonograph records right through their radio—electrically—with full volume and finest tone. The Rotrola is equipped with the Webster Pick-up, and the famous Rotor 60 cycle A.C. Motor. Send today for your sample!

### CARRYOLA No. 125

List \$25 Price

Think of selling an excellent portable, equipped with famous Rotor electric motor, at the same price you have been selling ordinary portables. This opportunity is before you with the Carryola No. 125! Every dealer will want this portable because it sells on sight—send for your sample—step ahead of all competition!



### MODEL No. 175

List \$75 Price

The finest radio-phonograph combination cabinet you've ever seen. Completely equipped with Rotor electric Motor and turntable. Webster Pick-up, and compartment for records. Place any radio and speaker you desire in this cabinet, and think of the compelling price at which you can sell the complete combination! It means quick profit and business for you! Send today for sample! Usual trade discounts!

**D**O YOU want additional quick sales . . . more net profits . . . an astonishing fine new line which sells hand-in-hand with radio? If you do, just call the most alert jobber near you . . . ask for samples of the Rotrola and these new Carryola products. Or wire us collect, and we will gladly put you in touch with this Distributor. Action now will bring immediate profit-dollars!

Alert Jobbers too will find this the fastest selling line they have handled



in many a day. Wire for samples and complete details!

## Allen-Hough Carryola Co.

279 Walker Street, Milwaukee, Wis.

EXPORT AND EASTERN OFFICE  
225 W. 34th St., New York City

FACTORIES: Milwaukee and New York

World's Largest Makers of Portable Musical Instruments.

# ATWATER KENT

## RADIO

### SCREEN-GRID

# 16 quick facts

## about Atwater Kent Screen-Grid Radio

*Special Screen-Grid Circuit*, perfected by Atwater Kent to make complete use of the new Screen-Grid tubes.

*Many times greater amplification and sensitivity*, with the new Screen-Grid tubes.

*Needle-point selectivity*, made possible by Atwater Kent method of using Screen-Grid tubes.

*First audio stage resistance coupled*, permitting full use of two "45" power tubes with push-pull amplification to reproduce rich, low tones.

*Maximum undistorted output*—more volume than can be used, controllable at will.

*Enormous regulated power*, with no power hum.

*Electro-Dynamic*, of course.

*Stable* at all wave lengths.

*All parts matched and balanced.*

*All metal parts protected* by cadmium-nickel plating or lacquering. Power units hermetically sealed against moisture.

*752 tests in course of manufacture.* Also tested under extremes of temperature and humidity.

*Precision workmanship*, with permissible variations as little as one-half of one-thousandth of an inch.

*Completely shielded.*

*Illuminated dial*, marked in kilocycles.

*Can be used with short indoor antenna.*

*Choice of cabinets* made expressly by foremost furniture designers for Atwater Kent Screen-Grid Radio.



**IN CABINETS**—The best of American cabinet makers—famous for sound design and sincere workmanship—are cooperating to meet the demand for Atwater Kent Screen-Grid Radio in fine cabinets like these.

# ATWATER KENT

## RADIO SCREEN-GRID

*and let this great big fact  
sink in!*

When other manufacturers re-design  
their sets to use Screen-Grid tubes,  
remember this:

*Atwater Kent did not have to change!  
Atwater Kent introduced perfected Screen-  
Grid Radio, making complete use of the  
amazing new tubes, on May 1, 1929.*

### THURSDAY ON THE AIR

Atwater Kent Mid-Week Program  
Thursday Evenings, 10:00 (Eastern Time)  
WJZ network of N. B. C.

### SUNDAY ON THE AIR

Atwater Kent Radio Hour  
Sunday Evenings, 9:15 (Eastern Time)  
WEAF network of N. B. C.

ATWATER KENT MANUFACTURING COMPANY

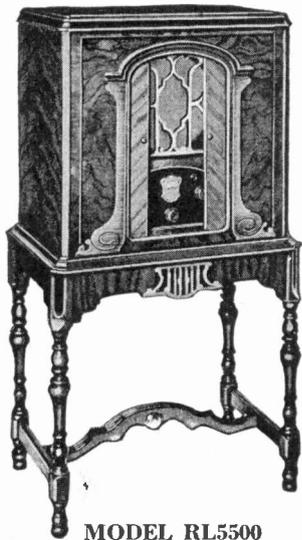
4733 Wissahickon Ave

A. Atwater Kent, President

Philadelphia, Pa.



and the orders  
are still pouring in



MODEL RL5500

Highboy, finished in walnut. Designed for new Atwater Kent Screen-Grid Sets. 26" long, 16" wide, 48" high.



MODEL RL55C

Console, finished in walnut. Designed for new Atwater Kent Screen-Grid Sets. 26" long, 15½" wide, 39" high.

FOR four years Red Lion Cabinets for Atwater Kent Radios have led the field—now this leadership has been *doubled*, with Red Lion Cabinets outselling the nearest competitor two to one.

Today, Red Lion is the largest independent radio cabinet manufacturer in the world. This five-year leadership has been attained and maintained by careful attention to design, sound construction and excellent workmanship—by an aggressive advertising and merchandising policy—and by close co-operation at all times with Red Lion-Atwater Kent Dealers.

The newest Red Lion Cabinets are masterpieces of cabinet craft, which enhance in every way the wonderful tone qualities of the new Atwater Kent Screen-Grid Radio.

RED LION CABINET COMPANY  
RED LION, PA.

Makers of the famous Red Lion Furniture

# Red Lion CABINETS FOR ATWATER KENT RADIOS

# Sell More Sets— Higher Priced Sets—



WITH THESE CHARMING CABINETS



**Model 158—Karvart for Atwater Kent Model 55 or 60**  
Karvart—the newest artistic method of treating wood—produces most distinctive effects. This Radio Master Karvart is built for Atwater Kent. Model 55 or 60 with F 4 Electro-dynamic Speaker.



**Model 171—For a Wide Variety of Table Sets**

Matched Walnut. Silent Leaf Doors with Mexican burl panel. French burl pilasters. Spindle carved ornament. Fits nearly all table sets—we will bore panel to order.

A **SPLENDID** cabinet—appropriate in beauty to a splendid set—that is the combination which brings home profitable business.

The charm of Radio Master Design by one of America's foremost furniture designers—the splendid craftsmanship—the rare, beautiful wood for which we comb the earth—these make it easy to sell sets mounted in Radio Master Cabinets.

Nobody really wants an inadequate cabinet with a costly set—least of all dealer and jobber who lose important profit—figure your percentage on a \$35 cabinet, as against a \$75 or \$100 cabinet.

And for lower priced sets, Radio Master has lower priced cabinets—but all up to rigid Radio Master standards of equality.

See Our Exhibit  
at

The Chicago Radio  
World's Fair

October 21st to 27th  
Space Nos. 19 and 20  
Section HH

RADIO MASTER CORPORATION  
BAY CITY MICHIGAN

**Radio Master Cabinets**

THE SETTING BEAUTIFUL FOR ANY RADIO

---

# SOLD!

## *and they sold themselves*

**T**O SAY that a remarkably large percentage of buyers are voluntarily choosing ADLER-ROYAL Cabinets for their Atwater Kent receiving sets is no mere figure of speech.

It is a recognized fact, proven by a constantly mounting sales volume that should carry far more weight with jobber and dealer than a bookful of advertising platitudes.

We repeat—*place an ADLER-ROYAL Cabinet beside any other in the same price class and let your customer decide.*

ADLER MANUFACTURING CO., Incorporated, LOUISVILLE

# ATWATER KENT Cabinets

by **ADLER-ROYAL**



# LEUTZ



Leutz Seven Seas Radio Phonograph Combination

3 Screen Grid Tubes  
 12-in. Dynamic Speaker  
 Electric Phonograph  
 Adjustable Selectivity  
 Push Pull 2/250 Tubes  
 Single (Split) Dial  
 Panel Illumination  
 Unit Construction  
 all  
**LEUTZ QUALITY**

WRITE, WIRE OR CABLE TODAY

**C. R. LEUTZ INC.**  
 ALTOONA, PA., U. S. A.

Cables Experinfo N. Y.

**WEST COAST**  
 B. J. Howdershell  
 Detwiler Bldg.  
 412 West Sixth St.,  
 Los Angeles,  
 California

**NEW YORK**  
 112 West 42nd St.,  
 New York  
 N. Y.

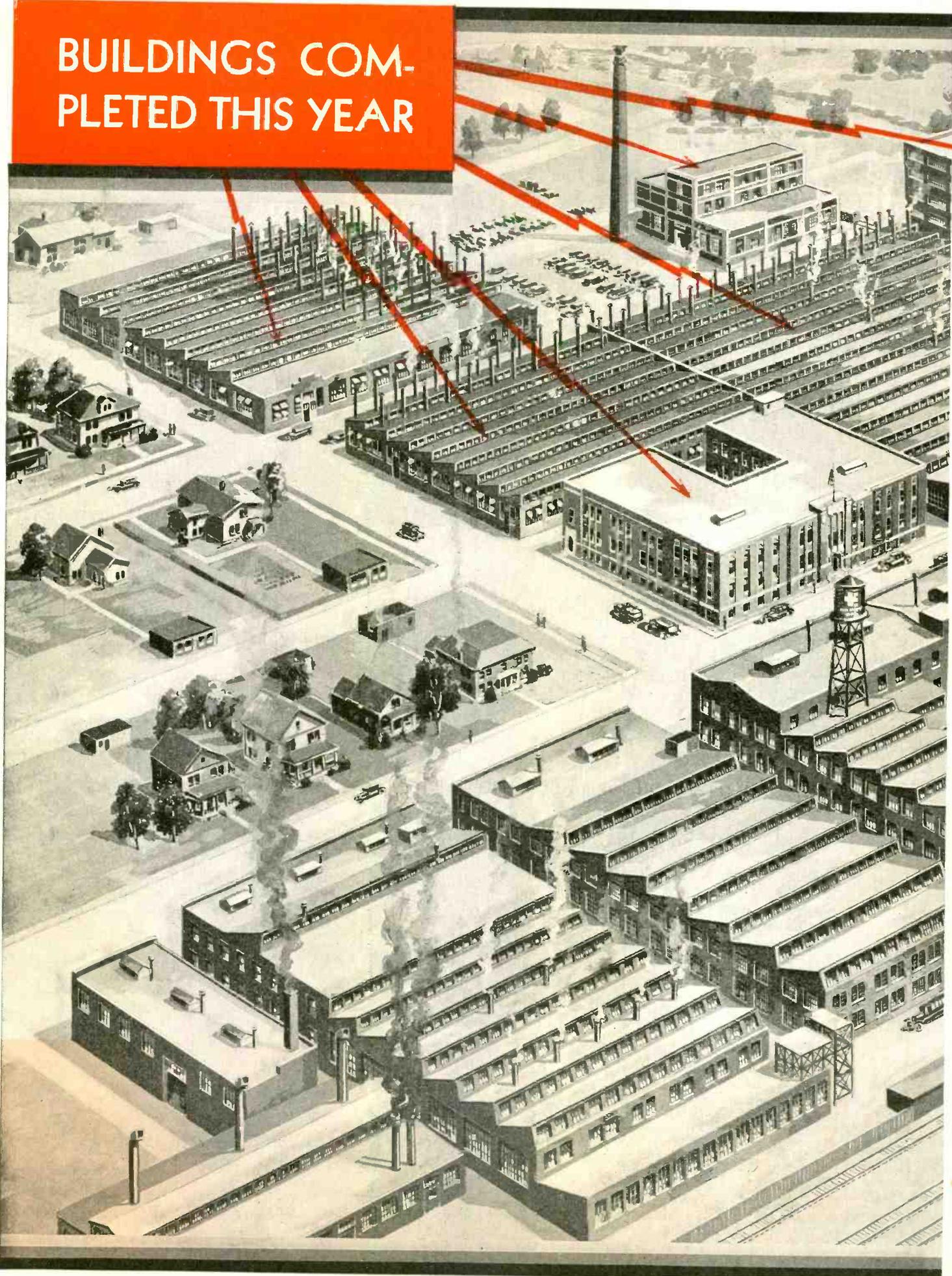
**FRANCE**  
 Baldwin M. Baldwin  
 1 Boulevard Haussman,  
 Paris, France  
 Cables Experinfo Paris

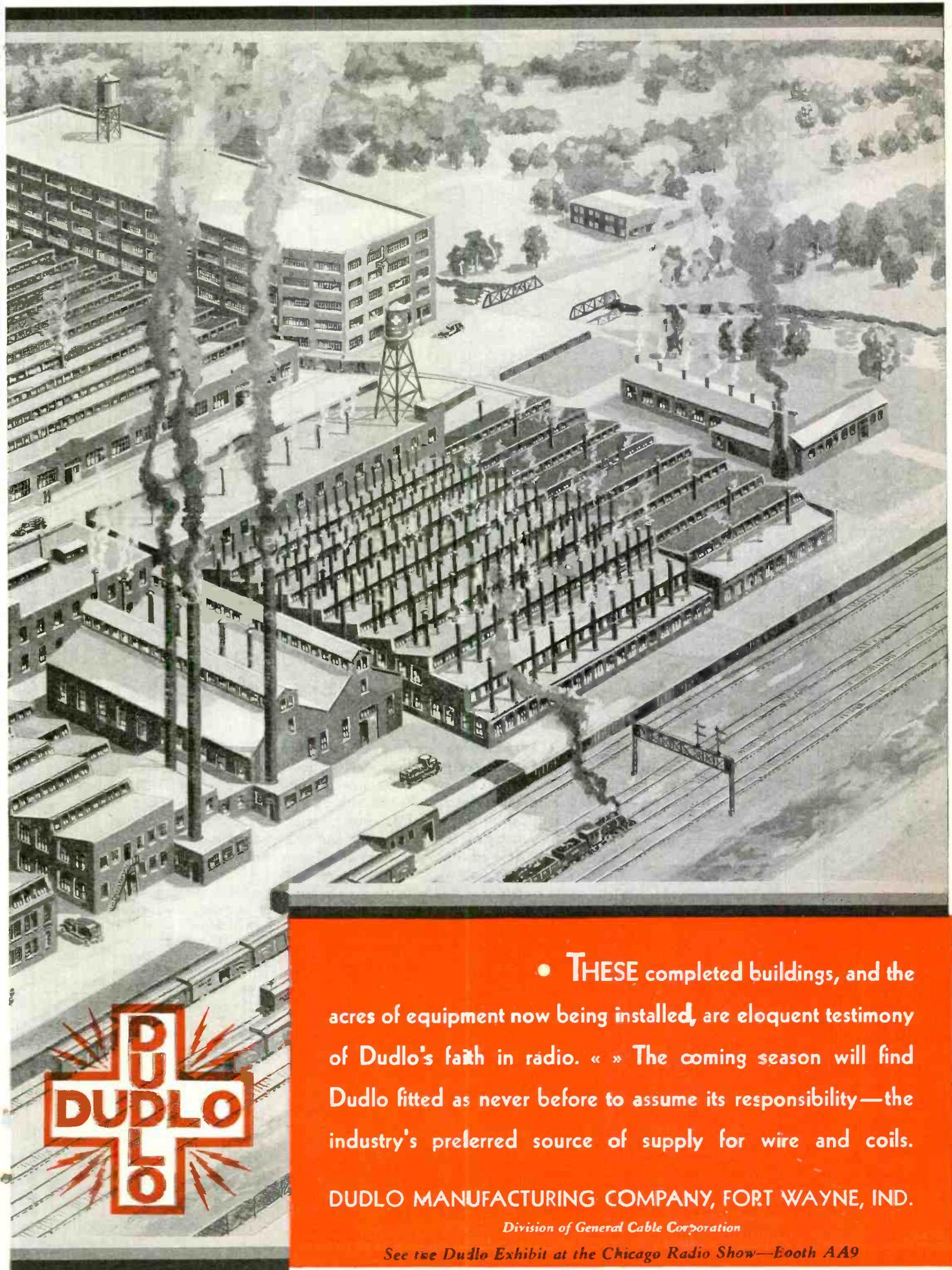


Close-up of Phonograph

# SEVEN SEAS

# BUILDINGS COMPLETED THIS YEAR





• THESE completed buildings, and the acres of equipment now being installed, are eloquent testimony of Dudlo's faith in radio. « » The coming season will find Dudlo fitted as never before to assume its responsibility—the industry's preferred source of supply for wire and coils.

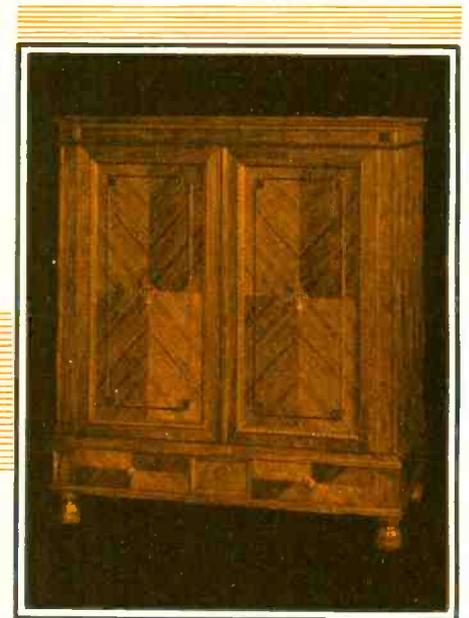
**DUDLO MANUFACTURING COMPANY, FORT WAYNE, IND.**

*Division of General Cable Corporation*

*See the Dudlo Exhibit at the Chicago Radio Show—Eooth AA9*



**F**OR THE ELEGANT HOME  
 OR THE CLUB  
 OR HOTELS . . .



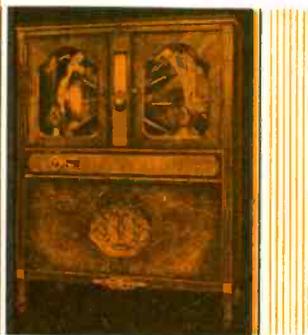
*Mills Troubadour and All Other Models  
 on Display at Chicago Radio Show*

MILLS  
*Troubadour*



Mills Coin-Operated Radio is a most modern 8-tube screen grid set, encased in a beautiful walnut cabinet with hand carvings and veneers of Butt Walnut and Australian Oriental Wood. Height 44 inches, Depth 17 inches, Width 29 inches. Equipped with dynamic speaker, and convenient coin device.

This attractive commercial instrument, Mills Automatic Phonograph, has proven a consistent money-maker for active dealers. It is selective, continuous playing, absolutely automatic—the finest musical instrument on the market for use in stores. Equipped with radio, if desired. Coin operated!



**W**HAT a profit opportunity for dealers! *Three* great markets for the Mills Troubadour! *Hundreds* of good prospects for the finest continuous playing *selective* automatic electric phonograph ever developed. It is the only musical instrument of its kind . . . remotely controlled, you can play it by merely touching a button, located conveniently at any desired distance from the instrument. Mills Troubadour comes to you with, or without, radio!

Hotels need it to entertain their guests. Clubs are buying to please their members. It has become a popular addition to many well-furnished homes—to provide continuous *selective* programs of dance music, concerts of favorite songs, or the latest radio features. Its pure rich tone wins instant enthusiasm. Its beautiful cabinet adds attractiveness to any room. Mills Troubadour can be supplied with any number of dynamic speakers you desire . . . so that the music may be enjoyed in several rooms at the same time. A coin operating device for this wonderful new musical instrument will be supplied, if desired.

Be first to enjoy the sale of Mills Troubadour in each of its three great markets. It will mean extra sales and extra profits, for it has no real competition. Mail the coupon for prices and full details of other dealers' amazingly profitable sales . . . today!

MILLS NOVELTY  
 COMPANY

# Mills Radio

EVERY SET TONE-TESTED

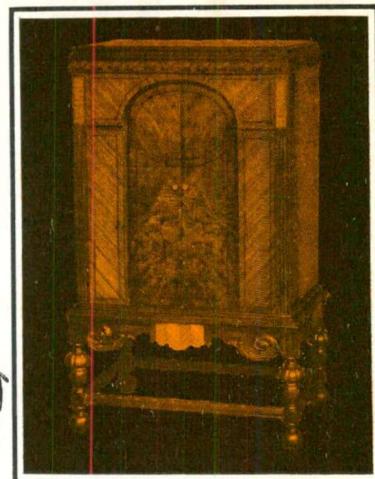
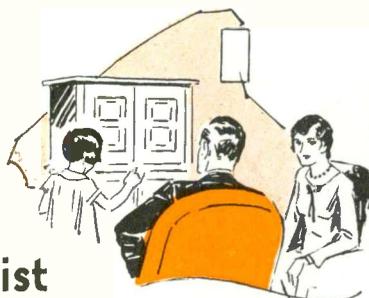
FOR YOU—a complete line of quality radio

FOR YOU—radio priced on value

FOR YOU—ample trade-in margin

FOR YOU—50% off list

FOR YOU—real net profits



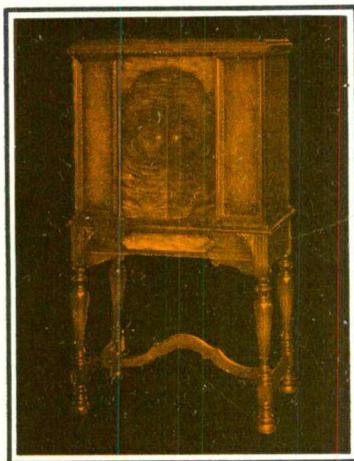
MODEL 300—An excellent model, finished in rich Walnut, with Maple overlay and attractive ornamentation. Modern sliding doors. Height 43 inches, Depth 16 inches, Width 28 inches.

THESE advantages, and more, for the dealer—in this sensational new line of *screen grid* radio—licensed under R. C. A. patents! It offers you performance, extreme selectivity, and tone to please the most critical customers. Famous engineers designed these new models, skilled craftsmen build them carefully and well. *Every set is tone-tested before it leaves the factory. There are no hurriedly assembled, untested Mills sets, to scare away the public—to cause dealers losses.*

It brings you cabinets of unusual beauty—the kind women have been looking for! Hand-carved, from specially selected *matched* hardwoods, made to decorate any room! Every model has 8 tubes—4 screen grid, latest type 245 power tubes, push-pull, resistance coupled, tuned radio frequency—equipped with modern dynamic speaker!

All this at astoundingly low prices—well within the field of volume sales. Efficient, *experienced* production has kept costs remarkably low. And most important of all—its discount to you allows a unique trading margin. *It comes to you 50% off list price!* You can make trades and still make net profits with Mills Radio.

If you want to participate in the profits from these amazing new models fill out the attached coupon. We will send you complete information on prices and our dealer franchise. But—do it Now!



MODEL 310—A splendid instrument, finished in Walnut and artistically ornamented. Height 50 inches, Depth 17½ inches, Width 27¼ inches.



MODEL 500—A most beautiful instrument—hand carvings—Oak-veneers of Oriental Walnut and Japanese Ash—gorgeously finished—with electric phonograph, if desired. Height 62 inches, Width 40 inches, Depth 21 inches.



MODEL 410—Attractively finished in Satin Walnut, veneers of Butt and Oriental Walnut, hand carvings. Height 55 inches, Depth 20 inches, Width 36 inches.



MODEL 400—Veneers of Butt and Oriental Walnut, Hungarian Ash and Elm Burl. Hand carvings of solid Walnut. A marvelous instrument—Height 48 inches, Width 33 inches, Depth 17 inches.

4100 FULLERTON AVENUE  
CHICAGO

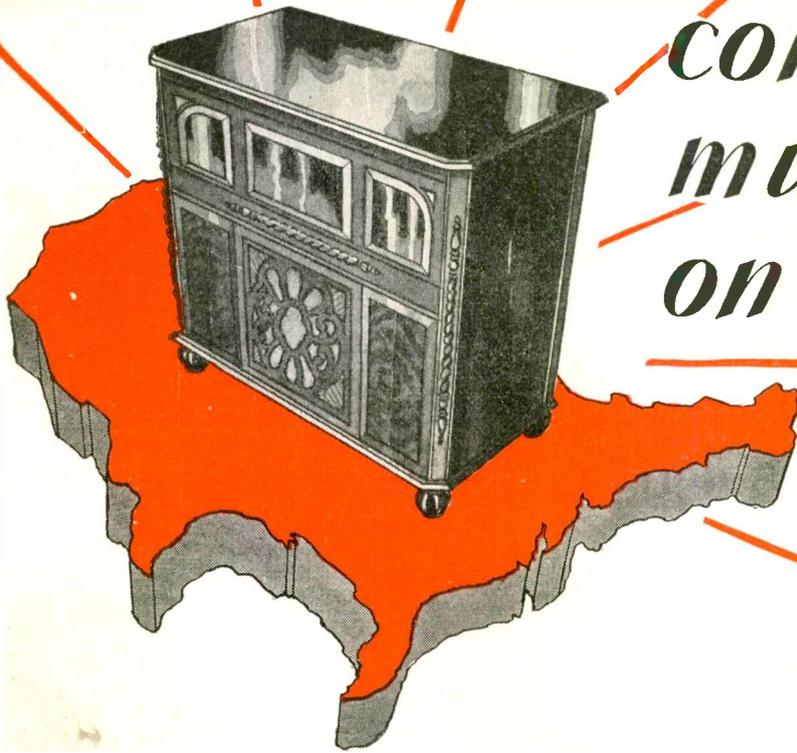
MAIL THIS COUPON—NOW!

Mills Novelty Co., Dept. O-5, 4100 Fullerton Ave., Chicago  
Please send me full details and prices of the new sensational Mills Radio. Also details about

- Mills Troubadour
- Mills Automatic Phonograph
- Mills Coin-Operated Radio

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

# CAPEHART *has put commercial music back on the map!*



CAPEHART has solved the music problem for thousands of public establishments. He has created a dignified musical instrument which lends distinction to their place of business and enables them to provide entertainment of the highest character for their patrons. Restaurants, hotels, refreshment parlors and recreation centers of all kinds throughout the country have installed the Capehart. Users everywhere tell how it pays a handsome profit on their investment.

**Plays  
56 Selections**

**Without Attention**

The Capehart actually offers more than has ever been possible before in a commercial musical instrument. Plays 56 selections, 28 records on both sides, changing and turning the records automatically. Operates 24 hours a day, if desired, without even a moment's attention. The tone, brought through 3 stages of audio amplification and specially designed electro-dynamic speaker, is startlingly true to life. The volume is adjustable to any requirement. Supplied with or without coin-operating attachment.

### *A New Opportunity for Dealers*

Thus Capehart has put commercial music back on the map. From the first the Capehart has been sold exclusively through dealers. Many have made from \$2000 to \$5000 a month. Now, with a large new factory and greatly increased production, the same opportunity is open to new dealers in many territories. The coupon brings the Capehart Catalog and full details of Capehart's complete advertising and merchandising plan. No obligation — *send the coupon now!*

### **Saturday Evening Post Advertising Campaign Now Running**

Capehart advertisements are appearing every two weeks this fall in the Saturday Evening Post. This is the first time that a commercial musical instrument has been advertised to the general public. Thus a new market is being created for Capehart entertainment. Many hundreds of inquiries are coming in from prospective users all over the country, *all of which are referred to Capehart dealers.* This is only part of Capehart's extensive plan of cooperation with dealers. Send coupon below for full details.



*This is the new factory of the Capehart Corporation at Fort Wayne, Indiana. Greatly enlarged production. New opportunities for dealers.*

THE  
**Capehart**  
ORCHESTROPE

CONTINUOUS AMPLIFIED MUSIC FOR ALL PURPOSES

THE CAPEHART CORPORATION, FORT WAYNE, INDIANA

The Capehart Corporation,  
Dept. 4857, Ft. Wayne, Indiana

Please send me without obligation, descriptions of all Capehart Orchestrope models and details of the Capehart Dealer's Franchise.

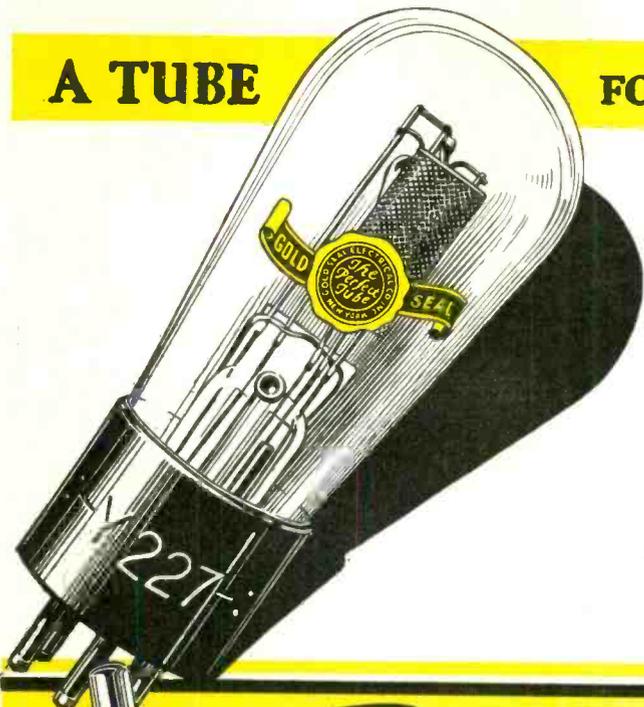
Name.....

Address.....

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

**A TUBE**

**FOR EVERY SET AND EVERY SOCKET**



**PERFECT  
HUMLESS  
REPRODUCTION**  
*"The Biggest 4 in Radio"*

**Gold Seal's**  
*answer to the appeals  
from the trade*



Humless Screen Grid and A.C. Tubes  
with the Gold Seal Uniform Quality  
That the Set Makers and Public Are  
Beginning to Talk About ▲ ▲ ▲

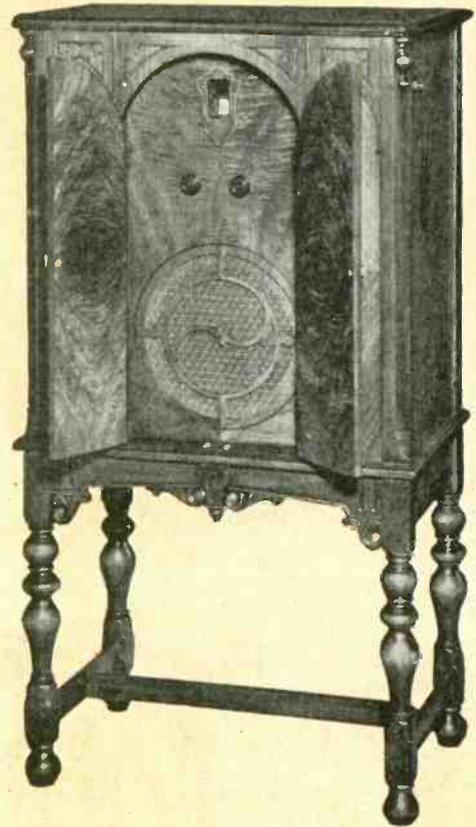
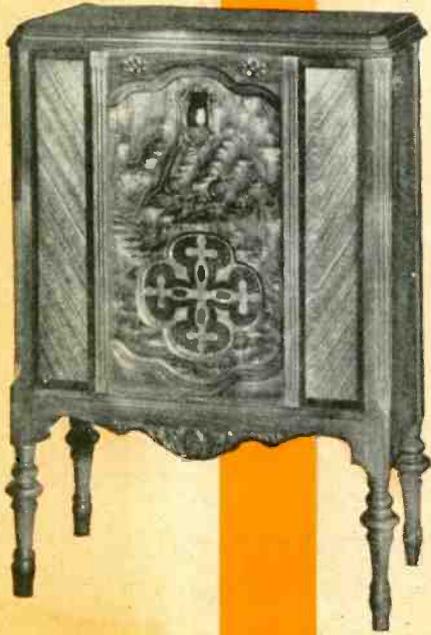
*"This is Going to Be  
a Gold Seal Season"*

*get*

All Price Range And Discount  
Policy Information. We'll Wire  
It If You Say So. Send Today.



**GOLD SEAL ELECTRICAL COMPANY, Inc., 250 PARK AVENUE, NEW YORK**



*Three Models*

The Imperial (above) **\$187.50**

The Serenader (at left) **\$149.50**

The Troubadour (below) **\$129.50**

*Less tubes*

*Prices slightly higher far West*

# Sterling

...ON THIS ONE QUALITY WE  
HAVE CONCENTRATED A  
GENERATION OF EXPERIMENT

**R**ADIO'S most recent mechanical refinements are important only as they contribute to faithful reproduction . . . to tone.

On this one quality—Tone—Sterling has lavished a generation of experiment and experience.

The result is the new Sterling Concertone Radio . . . embodying all of the most recent PROVED mechanical developments . . . plus a rich, full, mellow tone so utterly superior . . . as to immediately impress the listener with the fact that here, indeed, is Radio's most golden voice.

Established, aggressive dealers in all localities will recognize in the Sterling Concertone franchise, unusual opportunities for the development of new and profitable business.

THE STERLING MANUFACTURING CO., CLEVELAND  
Electric Manufacturers for 23 Years

**3** Screen grid tubes **3**

See our exhibit at the eighth annual Chicago  
Radio Show Colosseum, Chicago. Booth D. D. 10

**C**oncertone **R**adio



## The *Electro-Chromatic* PICK-UP

The clearest, most natural speech or music, of course, is that emanating direct from human throat or actual instrument. In the realm of the pick-up, only the ELECTRO-CHROMATIC Pick-Up has thus far been able to reproduce this realism, because only this Pick-Up is sensitive enough to catch

the all-essential colortones and chromatic values. As in the case of our talking machine reproducers, known everywhere as the standard by which others are judged, the ELECTRO-CHROMATIC Pick-Up has sustained a world-wide reputation for performance *par excellence*.

**The AUDAK COMPANY, 565 Fifth Avenue, New York**

*"Creators of High Grade Electrical and Acoustical Apparatus Since 1915"*

In Canada—The Canadian National Carbon Co., Ltd., Toronto

# NEW EVEREADY RAYTHEON

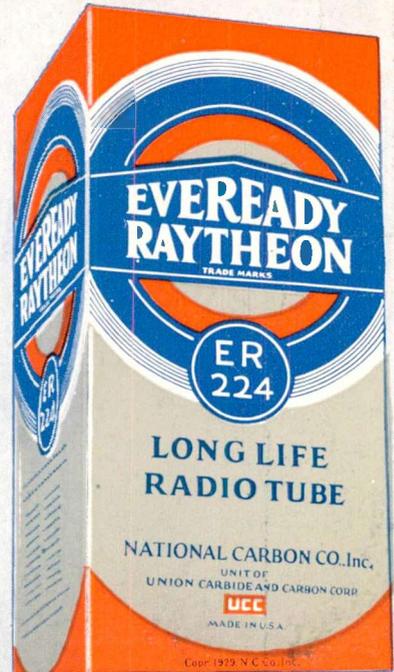
## 4-PILLAR TUBES

This marvelous and exclusive improvement in radio tubes means a new standard of tube performance

PUT a new Eveready Raytheon Tube in each socket of your own receiver . . . and note the tremendous improvement in reception. These fine tubes come to you, and go to the receivers of your customers, in the same perfect condition as when they leave our laboratory test room.

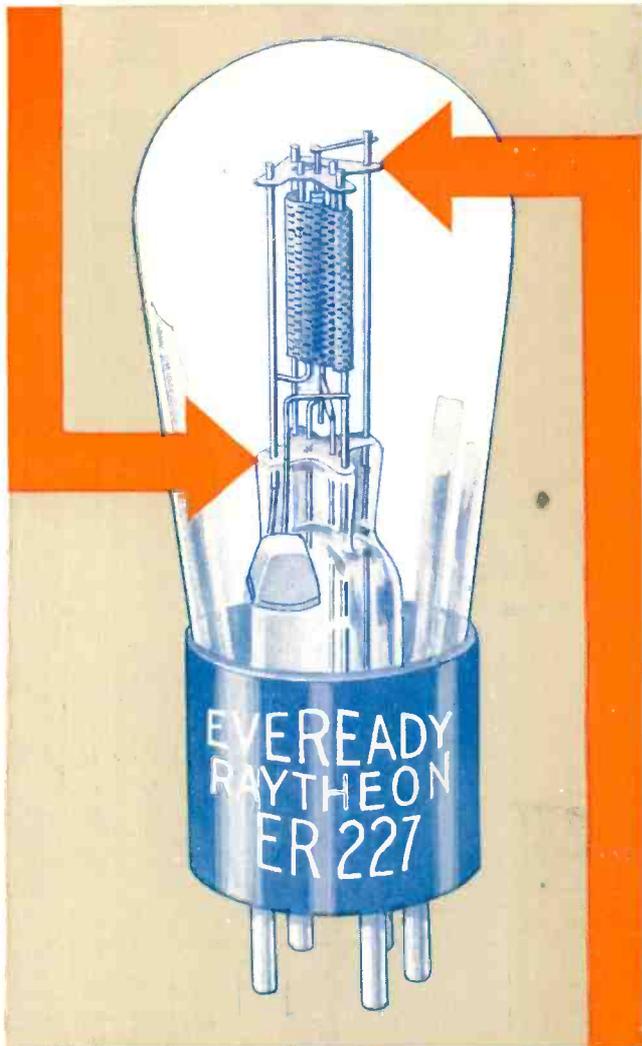
To see the reason, examine an Eveready Raytheon Tube. See the solid, four-cornered glass stem at the base of the elements. Note the four rigid pillars which pass through the stem and support the elements. Observe how this *4-Pillar construction* is further anchored at the top by a stiff mica plate.

Now you can understand what makes Eveready Raytheon Tubes so much stronger . . . why the super-precision with which they are built cannot be changed or destroyed by the jolts and jars of shipment and handling which every tube receives. The elements in an Eveready Raytheon are accurately spaced when the tube is made, in that position which assures maximum performance. These tubes always reach you with their elements undistorted . . . ready to give laboratory reception.



### 4-PILLAR SCREEN GRID

Eveready Raytheon Screen-Grid Tube, ER 224. The weight of the four large elements in this type of tube makes the exclusive Eveready Raytheon *4-Pillar construction* vitally important.



# EVEREADY RAYTHEON

Trade-marks

## AT THE FRONT IN TELEVISION

FOR talking movies, for television transmission and reception, Eveready Raytheon has led with tube improvements. Including television Kino-Lamps and Foto-Cells, the Eveready Raytheon line is complete . . . with standard receiving tubes of every type, for A.C. and battery-operated receivers. And don't forget that we developed and built the famous B-H tube for "B" eliminators, the original gaseous rectifying tube . . . for which there is an enormous market!

No other radio tube can use Eveready Raytheon's 4-Pillar construction, for it is patented. With no other tube can you have all the advantages of this exclusive feature. People everywhere, using Eveready Raytheons in their own receivers, report increased distance, greater power and better tone. In addition, the A.C. heater tubes are quick-acting.

NATIONAL CARBON CO., INC.

General Offices: New York, N. Y.

Branches: Chicago Kansas City  
New York San Francisco

Unit of Union Carbide  and Carbon Corporation



The Eveready Raytheon **Foto-Cell** is a long-life transmitting tube for talking pictures and television.

The Eveready Raytheon **Kino-Lamp** for television reception is the first tube developed commercially which will work with all systems.

# 4-PILLAR TUBES

# BREMER-TULLY RADIO

## SEPTEMBER SALES

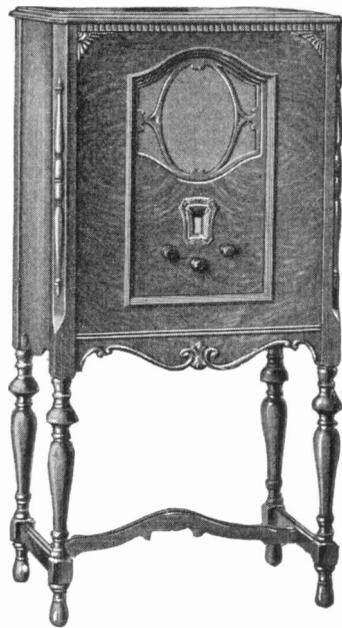
# 8 times greater

## THAN LAST YEAR

MODEL 81—De Luxe Open Console. Micro-Balanced chassis. 9 tubes including rectifiers. Humless. Rich walnut cabinet.

\$164 less tubes

Also Model 82, French Door Console, same chassis—  
\$195 less tubes



### Vote

National Radio Program Preference Poll. For details, tune in BREMER-TULLY TIME, every Friday, 9 P. M. Eastern Standard time over Columbia network

Orders! Orders! Orders! Eight times as many as a year ago! That's the public's tribute to the self-evident superiority of the new Bremer-Tully *Micro-Balanced* Instruments.

Compare them in tone, selectivity and distance—side-by-side with any other 1929-30 radio, bar none—and you will know why Bremer-Tully is selling more instruments and franchising more dealers than any other fine radio this year.

Backed by experience dating from 1921 . . . one of the finest laboratories in the industry . . . an unrivaled reputation for quality reception . . . a powerful broadcast and newspaper merchandising campaign . . . and an unusually liberal finance program . . . the Bremer-Tully protective franchise offers you the greatest opportunity for worth-while profits and permanent success in radio. Write for particulars.

BREMER-TULLY MANUFACTURING COMPANY

656 Washington Boulevard, Chicago

.....  
A P E R M A N E N T N A M E I N R A D I O  
.....



#### These Features Make the Webster Supreme

- 1—The famous Webster low-inertia stylus bearing, utilizing an all-metal pivoting action, eliminates necessity for bulky construction. Positively no rubber on bearings. Perfect balance is assured.
- 2—The Webster Pick-up head is small and compact, perfectly balanced, light in weight. Weight of head on record only  $4\frac{1}{2}$  ozs. No counterbalancing or springs necessary.
- 3—Highest grade Cobalt magnet of greatest possible density is used.
- 4—Shock-absorbing arm bearing with pivot at base—an exclusive Webster development.
- 5—Unique method of turning head with arm to conveniently insert playing needle.
- 6—Volume control incorporated in base—compact and easiest to install—an original Webster feature.
- 7—Base is weighted. Can be screwed to motor board or merely set in place.
- 8—Cord completely concealed—all bearings free from play and chatter.
- 9—Construction easily lends itself to use of varied lengths of arm for either standard or talking picture records.

distinctive Webster developments mean in performance.

Hear the Webster Electric Pick-up with your own ears. Its resonance of tone and unlimited range will surprise you. It is offered in models to suit every demand. Packed in attractive self-selling cartons. If your jobber has not stocked the Webster, write us direct.

Special Pick-up is available for Victor Radio Model No. 32. It is finished in attractive light French Grey finish. Complete Model \$19.50. Special Model to attach to Victor Tone-arm, \$15.00.

WEBSTER ELECTRIC COMPANY  
Racine, Wis., U. S. A.

Export Dept.: 154 Nassau St., New York City

**Webster**  
**W** Electric Pick-up

# No other Electric Pick-up offers ALL these Selling Features

THE Webster Electric Pick-up, leading in original features and in high standards of tone-reproduction, leads the field in sales-opportunities for the dealer!

Webster engineers make it easy for you to sell the Webster Pick-up. Note the unusual list of features at the left. Note particularly the all-metal stylus feature. It is offered in no other pick-up on the market. Consider what these



Model 2 B includes Pick-up head, separate volume control, and necessary adapters.

Model 2 A includes Pick-up head, supporting arm, built-in volume control, and necessary adapters.

The Webster Electric Theatre Pick-up for use with 16" records operating at 33- $\frac{1}{3}$  R. P. M. With standard or low impedance head.

“

# SHELF WARMERS

”

. . how many in your store?

**D**ON'T blame the people in your trading territory if you are troubled with "Shelf Warmers." Chances are the goods are not well known—not in demand—left on the shelves to eat up profits made from goods that do move.

To avoid stocking troublesome "Shelf Warmers"—buy merchandise that is *nationally advertised to the greatest possible number of families in your territory.*

To get that information before you buy—ask each manufacturer's representative who calls on you what publications carry his firm's advertising—how many families in *your* trading territory will see that advertising. Ask if The American Weekly is on the list—if it is you are reasonably certain the goods will move—because they will be backed by the *greatest circulation in the world.*

## *What is The American Weekly?*

The American Weekly is the magazine distributed through seventeen great Hearst Sunday newspapers from seventeen principal American cities. It concentrates and dominates in 536 of America's 812 towns and cities of 10,000 population and over.

IN EACH OF 185 CITIES IT REACHES ONE OUT OF EVERY TWO FAMILIES.

IN 132 MORE CITIES, IT REACHES 40 TO 50%.

IN AN ADDITIONAL 102 CITIES, IT REACHES 30 TO 40%.

IN ANOTHER 117 CITIES, IT REACHES 20 TO 30%.

—but that's not all. Nearly 2,000,000 additional families in thousands of other communities regularly buy The American Weekly—making the unprecedented national total of 6,000,000 families who read The American Weekly.

**THE AMERICAN**  
*Greatest Circulation in the World*  
**AWEEKLY**

*Main Office: 9 East 40th Street, New York City*

*Branch Offices: WRIGLEY BLDG., CHICAGO . . . 5 WINTHROP SQUARE, BOSTON . . . 753 BONNIE BRAE, LOS ANGELES . . . 222 MONADNOCK BLDG., SAN FRANCISCO . . . 12-231 GENERAL MOTORS BLDG., DETROIT . . . 1138 HANNA BLDG., CLEVELAND . . . 101 MARIETTA ST., ATLANTA*

THE MOST PEOPLE FOR THE LEAST MONEY

# Final Tests ... to assure perfection

*Naturally* — every TRIAD Tube is constantly, rigorously tested throughout the entire manufacturing process — a special test follows every individual operation. Yet TRIAD does *more than that!* When completed, each TRIAD Tube is subjected to nine *additional* and *final* tests for vital characteristics — tests so stringent that nothing short of absolute perfection can survive them! This infinite care in manufacture has won for TRIADS their reputation for superior quality — and has made possible that guarantee that goes with every TRIAD Tube — a minimum of six months' satisfactory service or a proper adjustment. You can rely on TRIADS — the tubes backed by an actual Insurance Certificate!

Call your jobber or write us direct  
for complete TRIAD information.

TRIAD MFG. CO., Inc., Pawtucket, R. I.

Tune in on the TRIADORS every FRIDAY evening, 8 to 8:30  
Eastern Standard Time, over WJZ and associated NBC Stations.

# TRIAD

INSURED

# RADIO TUBES

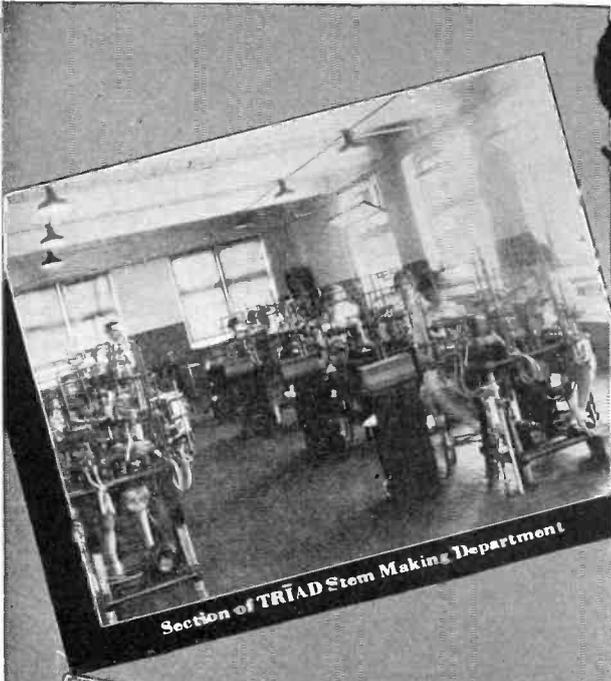
See the TRIAD display — Chicago Radio Exposition, Oct. 24-26, Booth 6 — Section Z



## FINAL TESTS

Below are listed the nine *final* tests for vital characteristics to which every TRIAD Tube is subjected.

- 1 Gas
- 2 Emission
- 3 Filament Current
- 4 Plate Current
- 5 Oscillation
- 6 Grid Voltage
- 7 Mutual Conductance
- 8 Plate Impedance
- 9 Amplification Constant



Section of TRIAD Stem Making Department

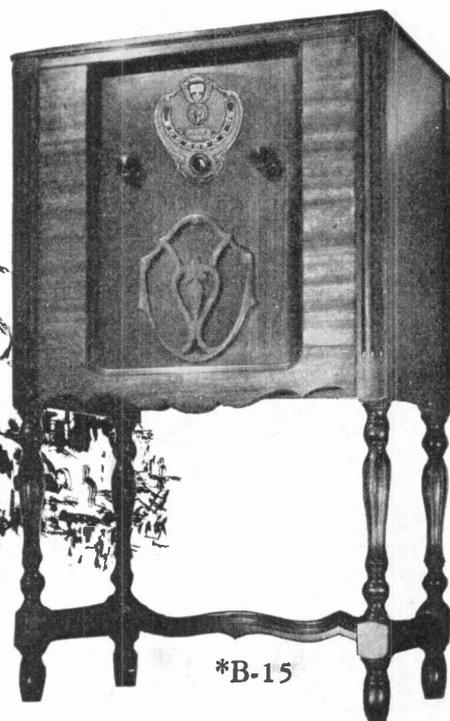
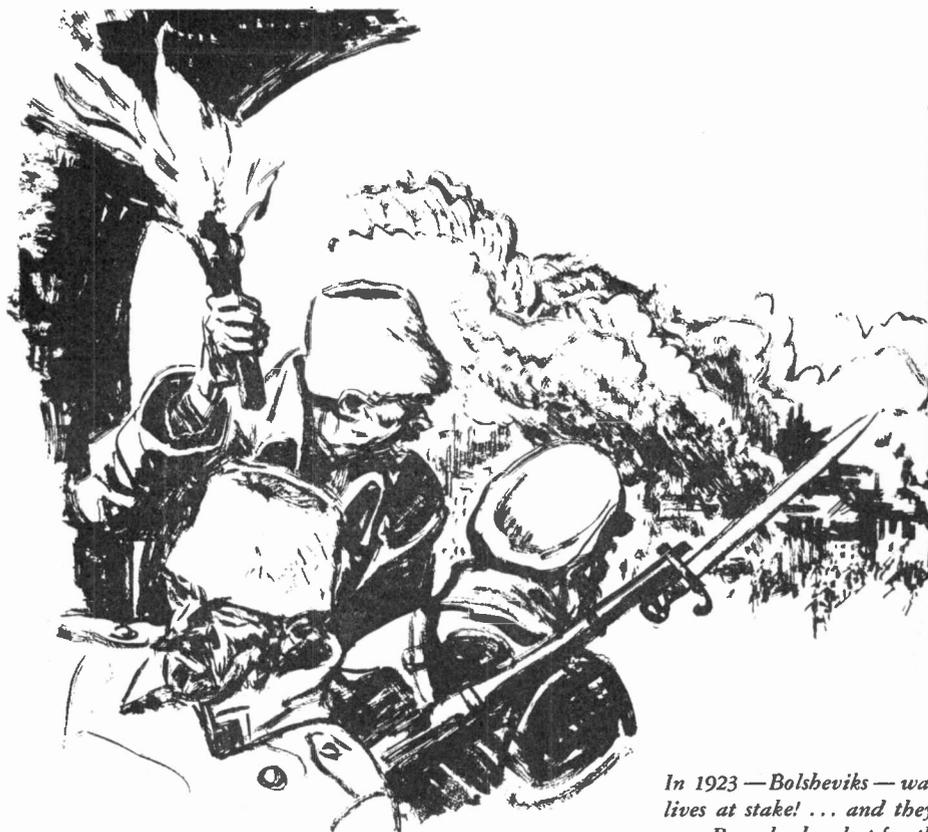


Section of TRIAD Testing Department



TRIAD Packing Dept.

Behind every Brandes Radio...  
21 years of research and adventure!



\*B-15

In 1923 — Bolsheviks — war — 30,000 lives at stake! ... and they depended on a Brandes headset for the messages that meant relief—food—and new life!

## Brandes—

*the greatest name in radio since 1908!*

Check through the list of every radio on the market! And where can you match the record of Brandes? Here is the only set in the world whose history goes back to the *pioneer* days of wireless—back to the days when 10,000,000 families were thrilled to hear music through a Brandes headset!

Today, you can't overestimate the value of

that background! Today, when you say, "Madame, this is the new Brandes radio," you're introducing a new member of an *old* family! Its name is thoroughly familiar—and its reputation widely known! Dealer after dealer will tell you, "You don't have to sell hard to sell a Brandes!"

\*That's *doubly* true because the Brandes console B-15, pictured here, is the climax of 21 years of research and adventure! It offers a handsome cabinet, Selector Tuning, dynamic reproducer, push-pull amplification with type 345 tubes, four tuned circuits, heater type tubes and absolute single dial control at the amazing price of \$125.50 less tubes.

Copyright 1929, by the Brandes Corporation



# The NEW Brandes Radio

A PRODUCT OF KOLSTER RADIO CORPORATION, NEWARK, N. J.



QUALITY THAT MAKES SALES



### KEN-RAD ON THE AIR

A unique and tuneful Ken-Rad program—"Cabin Nights"—on the air every Monday evening at 10 P.M. Eastern Standard Time, 9 P.M. Central Standard Time, over stations WJZ, WBZA, WBZ, WHAM, KDKA, WJR, KYW, KWK, WREN. Ken-Rad invites you to listen in every Monday evening.

**S**TANDARD QUALITY, plus extreme care in manufacture, make Ken-Rad Tubes give the kind of satisfaction you want to sell. Every Ken-Rad is a hand-picked tube—an aristocrat—sent out into the world only after passing the most rigid tests. Ken-Rad quality is proved in every tube—quality that makes sales for you.

A well-rounded advertising and merchandising program helps you capitalize on Ken-Rad quality in a big way. For example, a Ken-Rad advertisement appears in *The Saturday Evening Post* and *Collier's* every two weeks—and Ken-Rad is on the air every Monday night over the National Broadcasting Company's Blue Network. How Ken-Rad *helps* and *protects* you make an interesting story. Write for it today.

**THE KEN-RAD CORPORATION**

*Incorporated*

OWENSBORO, KENTUCKY

*A Division of*

KEN-RAD TUBE & LAMP CORPORATION

# KEN-RAD

## RADIO TUBES

LICENSED  BY R C A

IF  
 IT ISN'T A  
**MAGNAVOX**  
 IT ISN'T A  
**DYNAMIC**

(With a bow to Kodak)



Models 401, 403 and 405  
 12½" high, 12" wide,  
 8¼" deep, 10½" cone

Only Magnavox can build and sell a DYNAMIC Speaker; by authority of the United States Patent Office.

Only Magnavox customers and dealers can employ the selling force inherent in that word DYNAMIC.

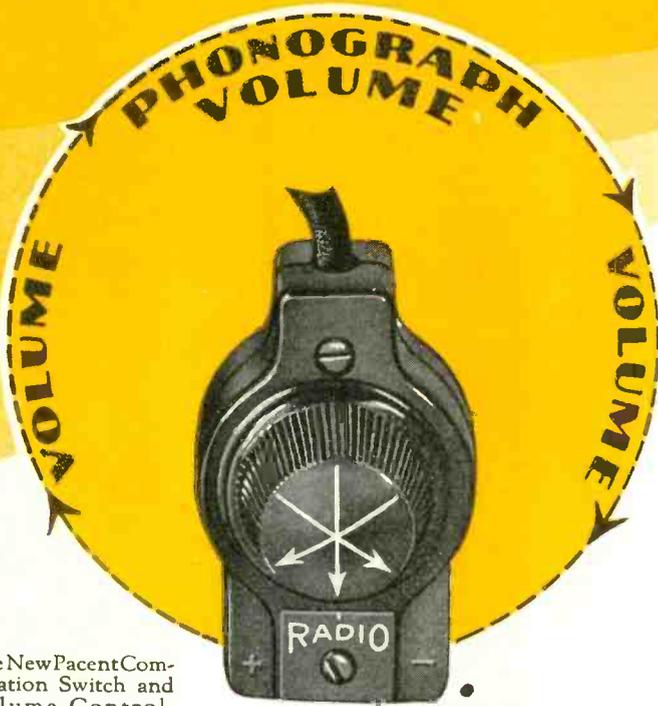
Only Magnavox owners can enjoy true-to-life dynamic REALISM, and a life-

time guarantee—made possible by the new Magnavox X-Core construction.

**THE MAGNAVOX COMPANY**

Originators of the dynamic loud speaker in 1911

Factory and Pacific Sales . . . . . OAKLAND, CALIFORNIA  
 Factory and Sales East of the Rockies . . . . . CHICAGO, ILLINOIS



The New Pacent Combination Switch and Volume Control.  
Patent applied for

# Pacent new vitally improvements in

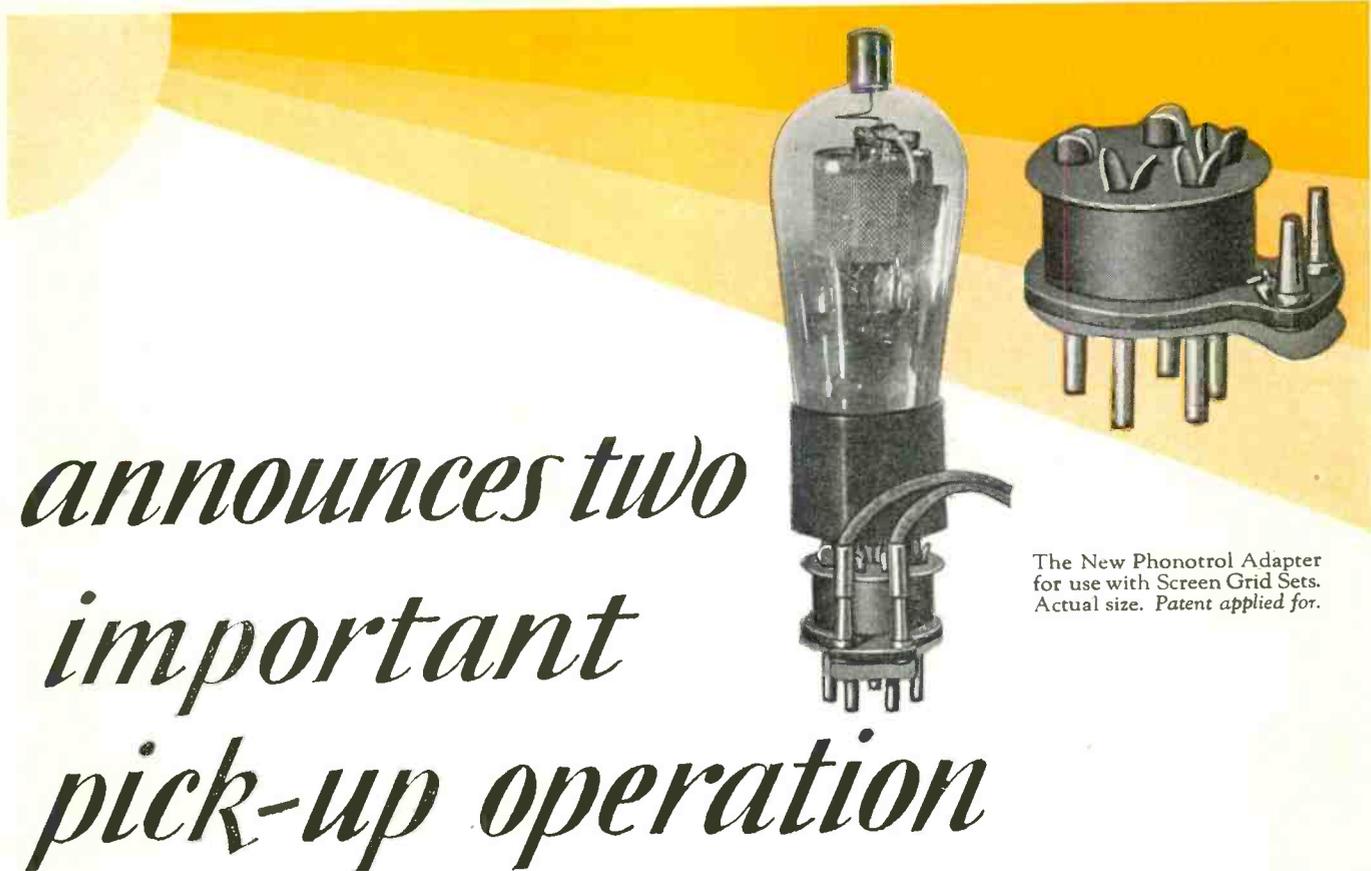
— Switch instantly from record to radio without changing a single thing

Pacent presents a revolutionary new switch for use with the Super Phonovox which greatly simplifies the operation of this famous pick-up. With it you can switch *instantly* from radio to records without removing a tube or changing a single thing. This marvelous device, moreover, is also a volume control as shown in the above illustration. When the arrow is in a downward position, the phonograph connection is off and the radio is ready to operate. When the arrow is turned upward—clockwise—the phonograph is connected at the *first movement* and its volume increased as the arrow is further turned.

THIS ADVANCED NEW SWITCH IS SUPPLIED WITHOUT EXTRA COST WITH THE SUPER PHONOVOX.

# PACENT

## *Super phonovox*



*announces two  
important  
pick-up operation*

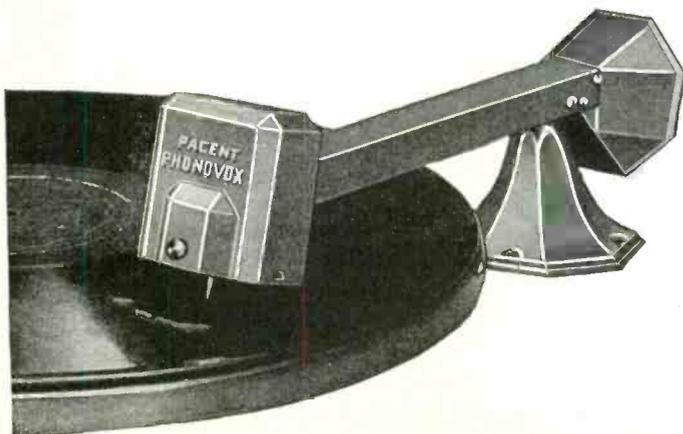
The New Phonotrol Adapter for use with Screen Grid Sets. Actual size. Patent applied for.

**New Phonotrol Adapter Created  
for Screen Grid Tubes**

The new Screen Grid radio sets, to get satisfactory tone quality and volume, from phonograph pick-up, require an adapter of a different type. The Phonotrol Adapter, by an entirely new method, enables the Super Phonovox to operate perfectly with screen grid tubes in sets such as Atwater Kent 55, 60 and 61, Crosley 41-S, 42-S and 82-S, and others. Simply remove the detector tube, insert the Adapter and replace the tube—a matter of a few seconds. And you need not touch it again.

*Both the new Phonotrol Adapter for screen grid tubes and the regular adapter for other sets are supplied with the Super Phonovox at no extra cost.*

Two new low Impedance Models 106-VA, 106-VB, especially designed for Victor Radio Sets and broadcasting stations—list \$12.00 and \$15.00.



**PACENT  
SUPER PHONOVOX**

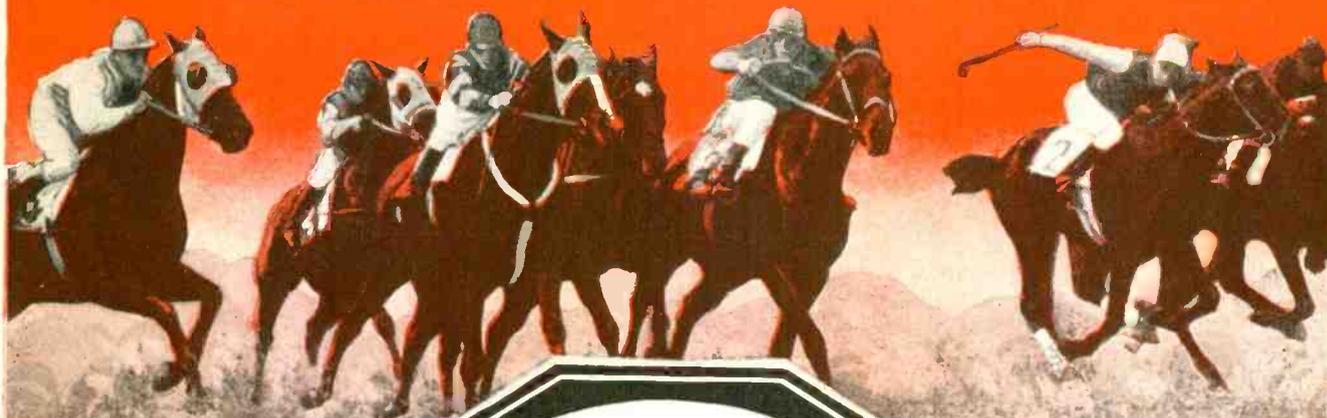
There is no finer pick-up to be had at any price. Has English 36% Cobalt Magnets — the most sensitive available. Balanced tone arm provides correct needle pressure. The Super Phonovox is famous for its marvelous tone and it is the fastest selling pick-up on the market.

**List Price  
\$ 15.00**

*Prices slightly higher west of the Rockies*

**PACENT ELECTRIC CO., INC., 91 Seventh Ave., New York**  
*Pioneers in Radio and Electric Reproduction for Over 20 Years*  
 Manufacturing Licensee for Great Britain and Ireland: Igranic Electric Co., Ltd., Bedford, England  
 Licensee for Canada: White Radio Limited, Hamilton, Ont.

*Off to a Flying Start! . . .*



**ELECTRIC**

opens its sensational

**\$500,000**

**SELLING DRIVE**

with a

Nation-wide "Picture-Puzzle" Contest

**\$10,000** in Consumer Prizes!

**\$2,500** in Dealer Prizes!

**\$2,500** in Jobbers' Salesmen's Prizes!

A Record-Smashing Campaign to Speed Up Sales and  
Increase the Store Traffic of every Authorized BOND Dealer!

*Up flies the barrier!* . . . The race for Bigger Business is on and BOND sprints quickly into the lead with the most thrilling and dynamic sales-making campaign in its entire business history! . . . A great half-million dollar selling effort to bring *added* customers and *added* profits to all Authorized BOND Dealers!



Here are Some of the High Spots:

**\$10,000 IN CONSUMER PRIZES**

for the most expressive and appropriate solutions submitted in the BOND "Picture Puzzle" Contest

**\$2,500 IN DEALER AWARDS**

for the best merchandising cooperation extended by retailers during the contest period!

**\$2,500 IN PRIZES TO JOBBERS' SALESMEN**

for their share in making the Contest an overwhelming success!

**Full-Page Advertisements in the SATURDAY EVENING POST and COLLIER'S**

*An intensive Campaign in the Nation's LEADING FARM PAPERS*

**Continuous NEWSPAPER ADVERTISING In Over 200 Important Cities!**

*Dramatic Window Displays! Compelling Counter Displays!*

**Sales-Producing Merchandising Aids!**

*Free Lantern Slides, Ad-Mats and Decalomanias!*

No expense has been spared in the whole campaign! Nothing has been overlooked to make it a big success for BOND dealers and jobbers! Two vitally *new* and *different* features have been introduced in the BOND Flashlight line. Special advantages are being offered to all retailers handling BOND Radio Batteries and Tubes! If you haven't stocked up on BOND, *do so now!*

**MAIL THE COUPON FOR FULL PARTICULARS!**

**BOND ELECTRIC CORP.**

Jersey City, N. J. Chicago Kansas City San Francisco

Makers of Radio "A", "B" and "C" Batteries, Storage and Dry Batteries, High-Vacuum Radio Tubes, Flashlights and Mono-Cells.



BOND ELECTRIC CORP., Jersey City, N. J.

Gentlemen: Please send us full information about the \$15,000 BOND "PICTURE PUZZLE" CONTEST and the way in which we can derive the greatest benefit from it.

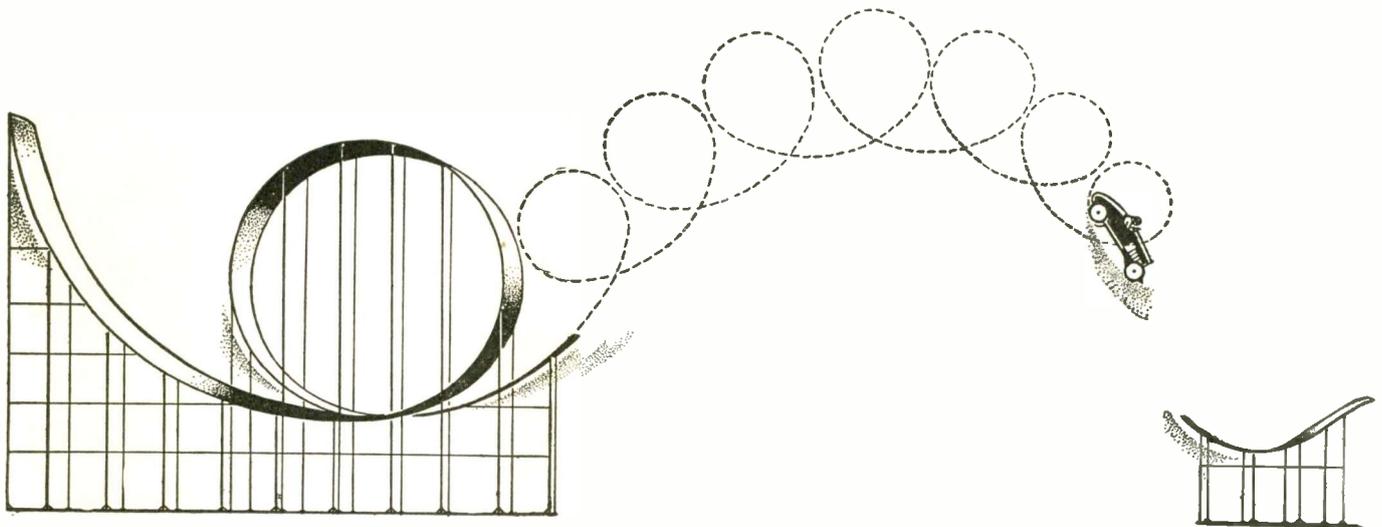
R.R.-2

Name.....

Address.....

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

# A picture-book study of growing dollars

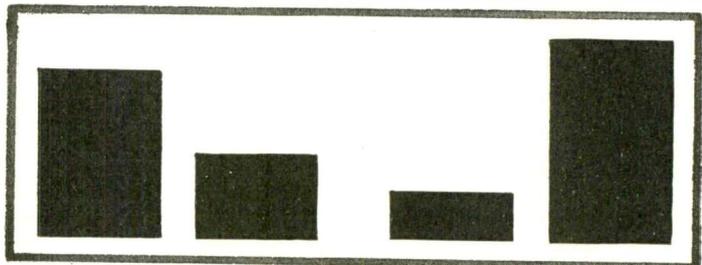


## How many turns will it make this year?

Your profits in tubes depend on your turn-over.  
 And your turn-over depends upon the number of lines you carry.  
 A-B-C stuff? Yes. But it is surprising to find that some radio dealers are carrying 20, 25 and 30 different brands of tubes. The profits made on a few lines are submerged in huge stock inventories that are tied up in unknown merchandise.

### Here is what one dealer did

He was carrying 22 different brands of tubes. His turn-over was 11.5 times a year. He reduced this number of brands to 6. And his turn-over was increased to 26.3 times a year.



No. of brands—22    Turn-over—11.5    No. of brands—6    Turn-over—26.3

### How increasing your turn-over increases your profit

This typical case will show the great importance of increasing turn-over.

Sales per year .....	\$30,000
Margin of profit.....	30%
Operating expense.....	\$7,500
Average inventory at selling prices.....	\$5,000

# CeCo

## in tube sales . . . for live dealers

Dividing sales (\$30,000) by inventory (\$5,000) gives 6 stock turns.

Multiplying sales (\$30,000) by margin (30%) gives \$9,000 gross profit.

Subtracting operating expense (\$7,500) from gross profit (\$9,000) gives a net yearly profit of \$1,500.

### Increasing stock turn-over Once doubles profit

Suppose you increase your turn-over from 6 to 7. Multiply average inventory (\$5,000) by 7—gross sales, then, are \$35,000.

Multiplying sales (\$35,000) by margin (30%)—a gross profit of \$10,500.

Deducting operating expense (\$7,500) leaves a net yearly profit of \$3,000.

This amount is double the profit made with 6 turn-overs.

With 8 stock turns, the net yearly profit jumps to \$4,500.

### The lines you concentrate on must be well-known brands of the highest quality

When a dealer decreases the number of brands, he must be sure that each line he carries has these two features:—

1. Must be of the highest quality
2. Must be nationally accepted merchandise.

In both of these items you cannot go wrong by featuring and pushing CeCo tubes. The quality of CeCo tubes is beyond question. The engineers who design and make CeCo tubes are the foremost engineers in the tube industry.

The new CeCo plant, the largest of its kind in America, is equipped with the most modern machinery for making and testing tubes.

Each CeCo tube is given 64 tests during its manufacture and after it is assembled to make certain that it conforms to the standards set by our designers.

Two foremost manufacturers and the two largest tube distributors in America, by actual laboratory tests against several of the best tubes on the market, proved that CeCo tubes have 30% to 50% longer life—and ordered, in aggregate, over 5,000,000 tubes.

### Ce Co is nationally known

CeCo tubes are sold from coast to coast. The CeCo Couriers broadcast every Monday night over the Columbia chain.

Our advertising program includes advertisements in general magazines, scientific and radio journals, local newspaper campaigns in key cities, dealer literature, window displays, etc.

All this can help you if you will let it! Thousands of set owners are going to want CeCo tubes from somebody. If you stock and display the CeCo line a good share of this business is bound to come to you.

Licensed under patents and applications of the Radio Corporation of America, the General Electric Company, and the Westinghouse Electric and Manufacturing Company.

**Ce Co Manufacturing Co., Inc.**  
PROVIDENCE, R. I.

# tubes



The A. C. 224 Screen Grid Tube was developed and perfected by CeCo over a year and a half ago.

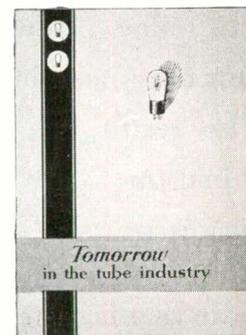
### This book shows you how to increase your tube sales

The facts presented in this message, and many more, are told in a book which we have prepared for radio dealers. This book points out the vast, untouched possibilities of the radio tube market.

Included in it is an impartial study of radio trends, reprinted with the permission of Dr. H. K. Nixon of Columbia University, which every dealer and jobber should read.

Send for this book. It contains many helpful suggestions for building up tube sales and shows what progress other dealers are making along this line.

This book is free to authorized dealers or jobbers. To avoid promiscuous distribution, will you kindly attach your letter-head to this coupon when sending in your request?



CeCo Manufacturing Co., Inc., Dept. 210,  
1200 Eddy Street, Providence, R. I.

Send me a copy of the dealer book, "Tomorrow in the Tube Industry."

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

“THE SET WITH THE PUNCH”

# A Challenge!

to every radio dealer in America

**\$142.50\***  
*less tubes*

Approved Jacobean Cabinet No. 35 as shown at right with Stewart-Warner Model 900 Radio and Electro-Dynamic Reproducer. Cabinet of American Walnut with enclosed back and hinged top. Height 38 inches, width 27 inches, depth 15 inches.

\* West of Rockies,  
\$147.00 less tubes.



**Compare FREE with all other makes on your floor for 10 days**

A new high standard of radio performance exists in the world today. New discoveries in radio reproduction have been introduced by Stewart-Warner. The result is a set that in Coast to Coast Elimination Contests has outperformed all other makes in its price class.

Here is a radio that is easier for you to sell than to compete with. Its amazing Punch combined with Stewart-Warner's new discovery called

## Your Choice of Two Powerful New Circuits

**Screen-Grid Circuit:** Uses three new 224-type Screen-Grid tubes; two 227-type heater tubes (one as the power detector); two new 245-type tubes in powerful new "push-pull" hook-up; and one 280-type rectifier tube. Resistance-coupled audio frequency. Three stages of screen-grid amplification. No A. C. HUM—yet 100% sensitivity.

**Balanced Bridge Circuit:** Uses five 227-type heater tubes, one serving as detector; two new 245-type tubes in a powerful new "push-pull" hookup; and one 280-type rectifier tube. This improved circuit completely eliminates oscillation; yet it is extremely sensitive. It brings distant stations booming in with all the punch of a "local" and with almost uncanny realism of tone.

**Connections for Television:** equipped to receive these signals when popular in broadcast range.

**Air-Cooled Power Transformer:** more efficient performance through positive cooling of coil.

**Plug-in for Phonograph.**

**4-in-line Variable Condensers:** most accurate condenser gang made; completely shielded.

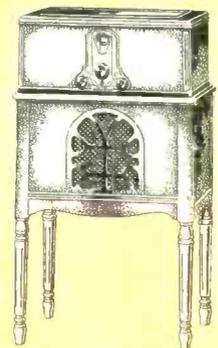
**Extremely Accurate Tuning Coils:** scientifically space wound and crystal tested to exact capacity.

**Built-in Aerial:** ground wire only required for local reception and home demonstrations.

**Completely Shielded Chassis:** one-piece drawn copper coil shields; shielded condensers; power detector and power transformer units.

**Aerial Compensator:** 3 taps provide adjustment to any type aerial and local conditions.

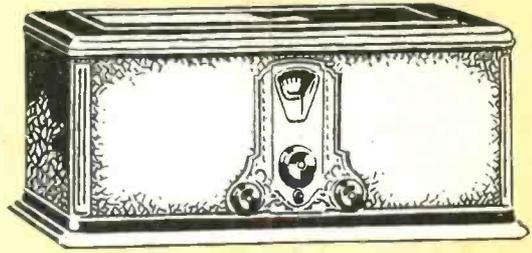
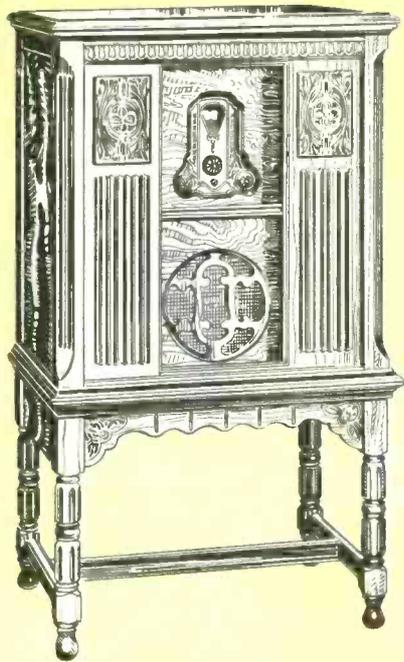
Cabinets by  
Louis Hanson Co.,  
Chicago, and  
Burnham  
Phonograph Corp.,  
Los Angeles



The Console Ensemble is hammered gold bronze or jade green and black. Electro-Dynamic Speaker, \$123.25 less tubes. West of Rockies \$128.50. Table Models in same finishes as Console Ensembles, \$89.75. West of Rockies \$92.25. Complete line of A. C. and D. C. Models, 60 cycle or 25 cycle

# STEWART-WARNER RADIO

Screen Grid Circuit or Balanced Bridge Circuit



**\$9225** Gold-Bronze Table Model 901 (above). Compact enough *less tubes* to satisfy the most exacting space limitations. Sturdy, all-metal cabinet, finished in hand-hammered Antique Gold-Bronze effect. Incorporates the new Series 900 chassis with the remarkable "Balanced Bridge Circuit." Height 9  $\frac{3}{8}$  inches, width 20  $\frac{1}{8}$  inches, depth 11  $\frac{1}{4}$  inches.

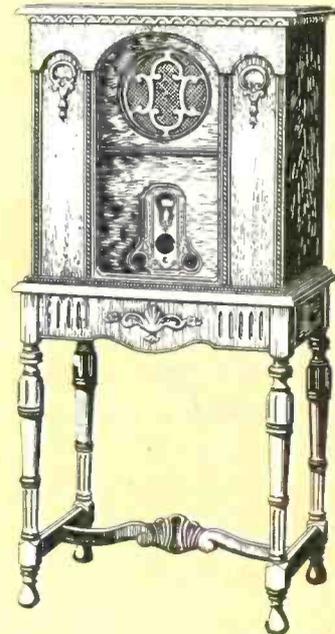


**\$15450\*** Approved 17th Century English Console Number 47 *less tubes* (shown at left) with model 900 Stewart-Warner Electro-Dynamic Reproducer. Cabinet of American Walnut with silent sliding doors. Height 44 inches, width 26  $\frac{1}{2}$  inches, depth 16  $\frac{3}{4}$  inches.

\* West of Rockies, \$159.25 *less tubes*

Supersensitizing, is making people talk. You'll hear more free word of mouth advertising on the Stewart-Warner than on any other set. Its outstanding performance can thus win the consumer. It demands that you investigate for your own profit.

Write now for FREE 10 day proof on your own floor. Ask for details on our liberal policy and franchise agreement known everywhere as the most liberal contract in the Radio Industry. You'll make added sales and greater profits by forcing out the facts immediately on which Radio is the biggest money-maker.



**\$16550\*** *less tubes*

Approved Sheraton Cabinet No. 58 with model 900 Stewart-Warner Radio. New Stewart-Warner Electro-Dynamic Reproducer. Cabinet of American Walnut and Australian Lacewood with silent sliding doors—height 52  $\frac{1}{2}$  inches, width 25  $\frac{1}{2}$  inches, depth 17 inches.

\* West of Rockies, \$175.50 *less tubes*

# STEWART-WARNER RADIO

Screen Grid Circuit or Balanced Bridge Circuit

# Collier's Goes to Work for the Men Who Sell Sylvania Tubes

Add Collier's two million circulation to the list. In addition to the network broadcasting of the Sylvania Foresters. And the newspaper advertising in more than two hundred dailies. And the dozens of kinds of intimate dealer helps Sylvania provides.

And now! *This* national magazine advertising—every other week—sells the radio public on *your* establishment.

The Sylvania transfer you put on your door—the Sylvania Window Trim—the Sylvania Counter Cards—these signs of Sylvania Dealership are the soul of this Collier's Campaign.

Every Sylvania sign you put where people can see it, is a definite tie-in with newspaper, magazine and broadcast efforts which say, "Visit the Dealer Whose Window Displays the Flashing S, on a Green Oak Leaf."

See Our Exhibit  
at the  
EIGHTH ANNUAL CHICAGO RADIO SHOW  
Coliseum, Chicago  
October 21st to the 27th, incl.  
Booth No. 1-2, Section W

**SYLVANIA PRODUCTS COMPANY**  
EMPORIUM PENNSYLVANIA



**Collier's**  
5¢ a copy  
THE NATIONAL WEEKLY

Call Out the Marine  
By Dr. CLARE TRUE WILSON

Hear it with  
**Sylvania**  
RADIO TUBES

See that he brings  
**SYLVANIA TUBES**  
when he comes  
to repair your set

**COME IN AND HEAR  
SYLVANIA TUBES  
at work!**

Visit the Dealer Whose Window Displays the Flashing S, on a Green Oak Leaf.

SYLVANIA PRODUCTS COMPANY  
EMPORIUM PENNSYLVANIA

**Sylvania**  
RADIO TUBES

Licensed Under RCA Patents

OCTOBER, 1929

# Radio Retailing

The Business Magazine of the Radio Industry

O. H. CALDWELL.  
Editor

A MCGRAW-HILL PUBLICATION. ESTABLISHED 1925



## It's Costing More to Sell RADIO

**W**HAT does it cost to sell radio at retail?  
The entire radio industry has sought the answer to this question.

Each manufacturer has needed dependable retail cost figures on which to base discount schedules and margins. Each jobber and distributor needs such figures in setting up his own distribution system. And each dealer needs operating facts concerning other retail businesses, with which to compare his own retail operations.



**R**ADIO RETAILING now presents the results of the most comprehensive survey of retail costs ever carried out. This survey has just been completed by *Radio Retailing* with the aid of the leading national dealer organizations—a task which involved the sending of questionnaires to some 4,000 retailers of all classes and sizes.

The figures on retail operating costs and profits on these following pages, can be relied upon as national averages, drawn from a large number of sources and are fundamental to the whole merchandising structure of radio.

They are worthy of the most careful scrutiny and study by every man in the radio trade.



**B**UT in all these figures one important thing stands out:

*Costs of doing business are going up.*

It is costing more and more to sell radio at retail.

This condition of ever-rising expense is not surprising

to experienced merchants in radio or other lines. In fact it is to be expected that a well-established business proceeding under momentum, will cost more and more to run each year, unless expenses are taken well in hand.

For costs never stand still. They tend always upward.

If the dealer has a lease on a store in a good location, he may expect next year to renew it at a higher figure than he now pays.

If he has dependable employees who are real factors in his business, they will want increases next year, over this year's wages.

Each year, competition of other specialty lines with radio gets sharper and sharper in the race for the customer's dollar.

And so expenses tend to mount.

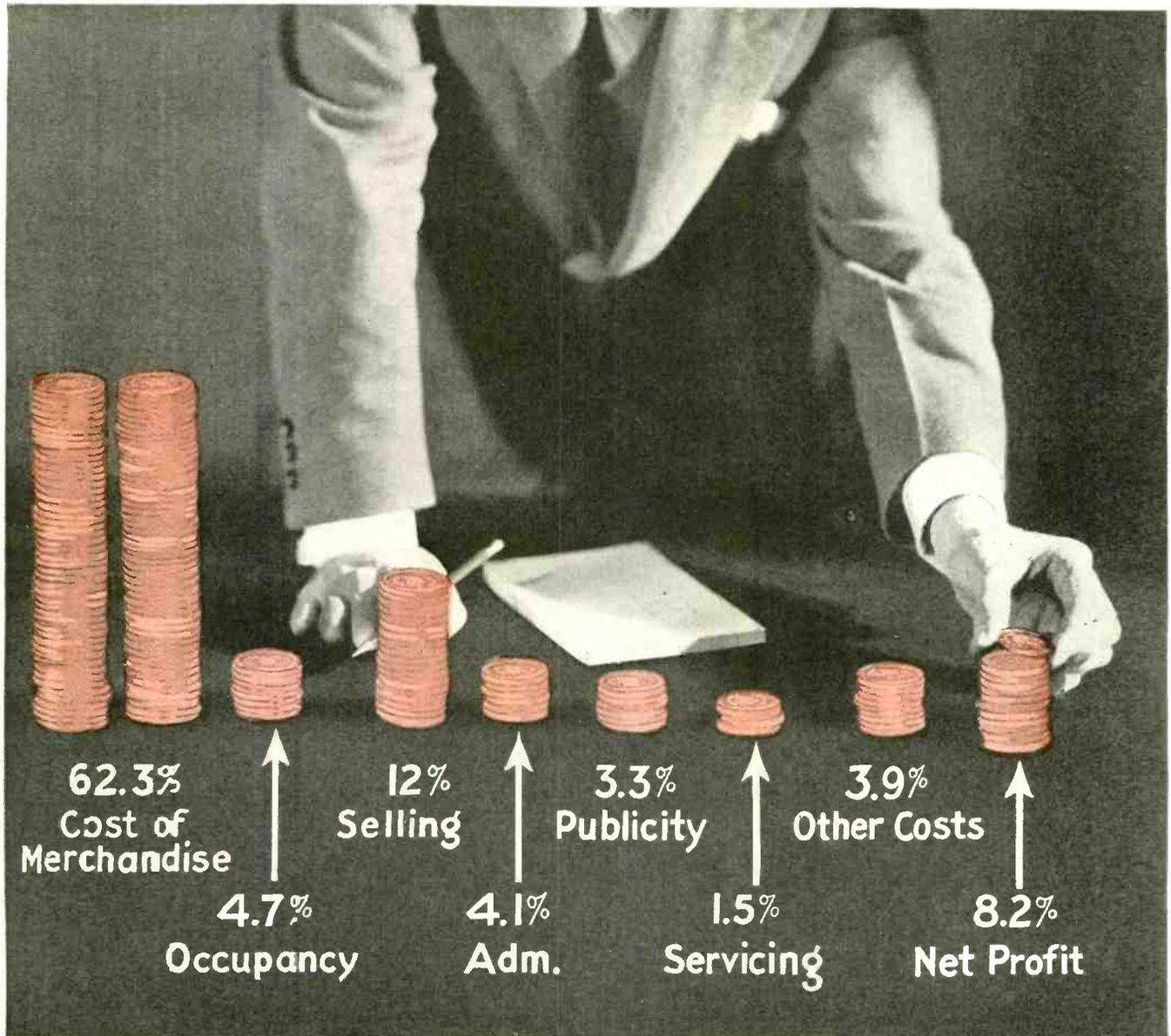


**O**NLY by eternal vigilance and unremitting attention on the part of the boss, can these normal rises be offset. Some increases he will have to accept, and then proceed to balance them by savings elsewhere and by volume increases which will restore the ratio of expense percentage.

"Beat Yesterday" is the stirring slogan of department-store men in meeting rising costs. It is a maxim for the radio man to paste in his hat and over his desk where he will see it a dozen times a day.

And a study of the valuable information on the following five pages will give every radio dealer, distributor and manufacturer valuable ammunition of a new kind, hitherto unobtainable, in the battle with the rising costs of selling radio.

# Expenses, 29.5%



## *Out of Earnings*

**H**OW does the average radio merchant apportion his earnings? Sixty-two per cent of his income goes for merchandise, 12 per cent for sales promotion, 4.1 to run the business. For 1928 net profit was 8.2 per cent.

These facts, and a host of others, concerning the businesses of 109 typical retailers—grossing \$7,216,009—receive analytical attention at the hands of an expert in the accompanying article.

# Profit, 8.2%

PART II of *Radio Retailing's* cooperative industry survey of the costs of selling radio—Presenting the final figures analyzed by an expert.

By S. J. Ryan

**A** NET profit of \$588,843 was realized on retail sales of \$7,214,009 in 1928 by the dealers reporting in *Radio Retailing's* survey of the cost of selling radio. This investigation was conducted in co-operation with the Federated Radio Trade Association and the National Association of Music Merchants.

And now the final, exhaustive computations have been made—the most comprehensive effort of this nature yet attempted within the industry.

We find that 109 dealers had a gross margin on their sales of \$2,721,348, or 37.7 per cent, and that their total costs amounted to \$2,132,505, or 29.5 per cent. This leaves a net profit of 8.2 per cent on retail sales. These figures confirm the generally held opinion that 1928 was the most profitable year in the history of the industry. From a study of the operating expenses of 42 dealers, conducted by this magazine for the year 1926, we find that net profit has increased 3.3 per cent during the intervening two years.

But mark this—the year 1926 showed a net profit for retailers of 4.9 per cent on sales, but *that increase of 3.3 per cent since then was not due to radio merchants having a better control of their costs.* On the contrary, the survey establishes the fact that it cost the average radio outlet nearly one per cent (0.8 per cent) more to sell radio in 1928 than it did two years previously. The danger lurking behind a drastic continuance of this trend is quite apparent.

**T**HE increased profit showing was due to an increase in gross margin from 33.6 per cent in 1926 to 37.7 per cent in 1928 on goods sold. This is ascribable to two causes: an increased discount to retailers, in some instances, and *less depreciation on inventories in the hands of dealers.* In other words dealers did not have to “mark down” as much merchandise in order to sell it as they did in 1926.

Ten of the 109 reporting dealers show a loss for the year. None of these are in the group of 22 stores doing a volume of \$100,000 or over—see table. Three are found in the 25 stores doing a volume of \$50,000 to \$100,000 and the remaining seven are in the group of 62 stores doing less than \$50,000 during 1928.

*Are the larger stores more profitable than the smaller ones? No.*

One per cent covers the difference in net profit between the three groups (there are startling variances in

individual operations however). The most profitable group, in terms of percentage of net profit on sales, are the 62 stores doing less than \$50,000 a year. They sold \$1,292,420 at a net profit of \$112,155 or 8.6 per cent. The 22 stores doing \$100,000 or over had total sales of \$4,194,760 and a profit of \$345,603 or 8.2 per cent. The 25 stores with volumes of \$50,000 to \$100,000 annually sold \$1,726,829 at a profit of \$131,085 or 7.6 per cent.

*Do the larger dealers operate more cheaply than the smaller ones?*

Not according to the survey figures. Quite the reverse in fact.

Group C (\$50,000 and less) spent 26.9 per cent of their sales in 1928 out of a gross margin of 35.5 per cent; Group B (\$50,000 to \$100,000) operated at a cost of 28.8 per cent with a gross margin of 36.4 per cent and it cost Group A (\$100,000 and over) 31 per cent of their sales to do business and they had a gross margin of 39.2 per cent. This clearly indicates that as volume increases *expenses increase*, but this is offset by the fact that gross margin and *total dollars profit* increase as well.

**I**T COSTS Group B 1.9 per cent more to do business than Group C and Group A spent 4.1 per cent more. This is a striking illustration of the importance of controlling expense. For example, *If Group A operated at the same ratio as Group C their net profit would have been 12.3 per cent instead of 8.2 per cent*, exactly half again as much. It is quite evident that the larger stores waste a great deal of money. If we were comparing individual operations there might be room for alibis but these are *group* figures. The survey definitely establishes the fact that the small dealers have a better control of their expense than the larger ones—they made a larger percentage of net profit even with a smaller gross margin on sales. These facts are revealed in the total compilations appearing on other pages.

*Do the larger stores pay less for rent and other costs of occupancy than the smaller ones?*

I am inclined to believe they pay slightly less, but this opinion is not confirmed by the figures. The total percentage cost is 4.7 per cent; that for Group A is 5 per cent, for Group B 4.1 per cent and for Group C it is 4.5 per cent. These percentages are based upon the actual figures reported in the “Occupancy” column

# Income, Expenses and Net Profits—Radio Retailing's Survey—109 Typical Radio Stores

Store No.	Income				Total Operating Expense		Net Profit or Loss		The Six Main Expense Items												
	Net Retail Sales	Cost of Goods Sold		Gross Margin		Dollars	Per Cent	Dollars	Per Cent	Occupancy		Selling		Administration		Publicity		Servicing		Other Costs	
		Dollars	Dollars	Per Cent	Dollars					Per Cent	Dollars	Per Cent	Dollars	Per Cent	Dollars	Per Cent	Dollars	Per Cent	Dollars	Per Cent	Dollars
1	497,000	278,500	218,500	43.2	170,094	34.2	48,406	10.0	13,150	2.6	119,450	2.5	12,000	2.5	7,245	1.5	6,430	1.3	11,819	2.2	
2	436,110	263,847	172,263	39.5	138,873	31.8	33,390	7.7	9,600	2.2	47,320	11.0	13,126	3.0	8,150	1.9	4,650	1.1	56,027	13.1	
3	364,840	214,526	150,314	41.2	118,416	32.4	31,898	8.8	8,365	2.2	37,829	10.4	11,530	3.0	9,080	2.5	3,729	1.0	47,883	13.2	
4	305,407	183,254	122,152	39.8	97,614	31.9	24,539	7.8	10,520	3.0	29,788	9.7	9,647	3.2	6,475	2.1	3,100	1.0	38,084	12.5	
5	278,092	171,575	106,517	38.0	91,502	32.9	15,015	5.4	37,543	13.5	29,472	10.6	Inc. in 2		13,193	4.7	Inc. in 2		11,294	4.0	
6	221,700	129,696	92,004	41.5	74,075	33.0	17,929	8.1	7,800	3.5	23,915	10.0	6,810	3.1	9,530	4.3	2,155	1.0	23,867	10.7	
7	193,550	129,670	63,880	33.0	46,610	23.8	17,270	8.8	7,960	4.1	22,600	11.0	5,700	3.0	6,348	3.3	1,860	1.0	2,142	1.1	
8	174,477	93,182	81,295	40.8	41,290	40.8	5	.000	47,179	27.0	29,431	17.0	4,680	2.6	Inc. in 2		5,957	3.9	4,619	3.1	
9	155,846	96,090	59,756	38.0	39,015	25.0	20,741	13.0	7,000	4.5	16,515	10.6	3,654	2.3	13,300	9.4	1,270	0.8	7,046	4.8	
10	145,000	104,278	40,722	28.2	38,946	26.8	1,776	1.2	1,200	.....	14,500	10.0	Inc. in 2		.....	.....	2,900	2.0	.....	.....	
11	142,090	86,249	55,841	39.3	39,034	27.4	16,807	4.5	6,350	4.5	16,708	11.0	5,905	4.5	5,819	4.5	2,280	1.7	1,972	1.5	
12	137,961	80,885	57,076	41.3	46,583	33.7	10,493	7.5	7,132	5.3	17,836	13.0	8,427	6.1	8,249	5.9	3,905	2.9	1,033	2.7	
13	131,360	75,669	55,691	42.4	36,828	27.4	18,863	14.3	7,240	5.5	15,347	11.0	5,140	3.9	5,160	3.9	1,520	1.2	2,421	1.8	
14	128,810	78,576	50,234	39.0	33,685	26.2	16,549	13.0	5,275	4.1	16,131	12.0	4,720	3.9	3,914	3.2	1,839	1.5	1,806	1.5	
15	128,243	78,742	49,501	38.6	33,969	26.0	15,532	12.0	4,960	4.4	12,780	10.0	4,640	3.8	4,206	6.0	1,283	1.0	3,100	2.6	
16	117,492	68,154	49,338	42.0	30,787	25.0	18,551	15.0	5,315	4.8	11,309	9.4	4,172	3.7	5,580	5.0	1,560	1.4	2,851	2.5	
17	116,757	86,205	30,552	26.5	29,367	25.0	1,185	1.0	3,485	2.9	18,306	15.5	3,512	3.0	4,064	3.6	2,870	2.7	4,860	4.5	
18	110,631	75,329	35,302	31.6	30,103	27.2	5,199	4.7	3,027	2.7	10,357	9.4	6,875	6.2	2,112	1.9	1,825	1.7	3,076	3.3	
19	104,032	66,070	37,982	36.5	27,026	27.0	10,956	10.0	3,600	3.5	9,806	9.5	3,600	3.4	5,119	4.9	1,036	1.0	.....	.....	
20	103,617	63,094	40,523	39.2	29,737	26.0	10,786	10.0	2,400	2.4	15,712	15.5	2,350	2.3	3,520	3.4	.....	.....	.....	.....	
21	101,725	71,738	29,987	29.4	22,774	22.3	7,213	7.0	2,319	2.3	5,457	5.3	3,882	3.9	3,961	3.8	3,836	3.7	3,318	3.2	
22	100,000	57,000	43,000	43.0	40,500	40.5	2,500	2.5	9,000	9.0	16,000	16.0	2,500	2.5	5,000	5.0	3,500	3.5	4,500	4.5	
23	97,921	60,883	37,038	37.8	33,040	34.0	3,998	4.0	6,000	6.1	14,115	14.9	5,200	5.3	3,965	4.1	1,650	1.7	2,110	2.1	
24	94,850	60,133	34,717	36.6	31,591	33.0	3,126	3.3	7,800	8.2	11,540	11.5	6,575	7.0	2,206	2.3	2,000	2.1	1,470	1.6	
25	90,018	74,263	15,755	17.7	11,831	12.0	3,924	4.3	2,986	4.0	3,637	.....	3,631	4.0	2,380	2.6	1,740	1.9	1,070	1.2	
26	86,132	50,391	35,741	41.5	24,701	28.0	11,040	13.0	4,160	4.4	8,165	9.4	4,255	5.2	3,360	4.1	1,900	1.0	1,629	1.9	
27	81,749	49,052	32,697	40.0	22,405	27.0	10,292	12.0	3,372	4.0	9,000	11.0	4,255	6.3	3,360	4.9	870	1.1	1,548	1.8	
28	79,770	51,697	28,073	35.2	29,758	37.0	-1,685	-20.0	2,908	3.7	8,760	11.0	11,632	15.0	3,908	4.9	1,150	1.4	1,400	1.8	
29	75,000	43,500	31,500	42.0	27,300	36.4	4,200	5.6	2,600	3.5	14,500	20.0	4,000	5.3	3,000	4.0	2,000	2.6	200	0.27	
30	74,806	46,802	28,004	37.4	24,433	33.0	3,571	4.7	3,154	4.0	12,266	16.0	4,575	6.0	2,755	3.7	850	1.1	833	1.1	
31	73,000	43,800	29,200	40.0	25,060	34.2	4,140	5.6	2,400	3.3	9,560	3.5	7,000	9.4	1,500	2.1	3,600	4.9	1,000	1.4	
32	72,931	42,428	30,503	42.4	15,717	22.2	14,246	19.0	3,061	4.1	4,101	5.5	3,600	5.0	3,565	4.9	547	0.7	843	1.1	
33	70,600	42,926	27,674	39.2	13,758	21.0	11,957	16.0	2,612	3.7	3,719	5.3	2,860	4.0	2,330	3.3	1,290	1.7	947	1.3	
34	69,574	42,092	27,482	39.5	13,552	19.0	13,930	19.0	2,247	3.1	4,368	6.1	2,175	3.1	2,900	4.2	1,112	1.6	1,112	1.6	
35	67,915	42,543	25,372	37.3	22,192	33.0	3,180	4.6	1,674	2.4	13,625	20.5	6,333	9.4	3,956	5.9	900	1.3	2,037	2.9	
36	67,154	38,414	28,740	43.2	24,865	36.0	3,875	5.7	1,351	1.9	10,927	16.5	6,333	9.4	3,130	4.5	1,868	2.8	2,256	1.8	
37	63,422	39,259	24,163	38.1	23,991	37.0	212	0.3	2,735	4.3	13,836	22.1	Inc. in 2		2,973	4.6	Inc. in 2		4,407	6.6	
38	61,713	40,423	21,290	34.5	18,947	29.0	2,343	3.8	1,692	2.7	9,083	14.5	3,120	5.1	3,280	5.0	830	1.4	942	1.5	
39	60,556	35,246	25,310	41.8	16,774	27.0	8,536	14.0	2,050	3.3	8,140	13.5	2,431	4.0	1,845	3.0	700	1.2	1,608	2.7	
40	59,722	44,754	14,968	25.0	18,601	31.0	-3,633	-6.13	2,509	4.2	8,861	14.7	3,237	5.3	2,328	3.9	600	1.0	1,066	1.7	
41	58,107	39,321	18,786	32.7	19,879	32.4	-1,093	-1.7	2,843	4.8	6,017	10.3	7,107	12.2	1,755	2.7	1,044	1.7	1,113	1.9	
42	56,850	37,170	19,660	34.6	14,308	25.0	5,352	9.0	2,491	4.2	5,250	7.0	2,680	4.7	1,540	2.5	935	1.7	1,412	2.5	
43	55,000	33,000	22,000	40.0	13,276	24.0	8,724	16.0	2,500	4.5	3,945	3.5	1,530	4.0	2,800	5.1	1,140	2.0	1,361	2.4	
44	54,379	34,619	19,760	37.0	14,890	26.0	4,870	9.0	2,357	4.5	5,707	10.5	3,374	6.7	1,822	3.0	1,430	2.6	.....	.....	
45	53,525	39,108	14,417	26.4	10,639	21.9	3,778	7.0	872	1.7	4,764	10.5	2,321	4.3	946	1.7	1,090	1.9	646	1.2	
46	51,155	31,428	19,727	39.2	11,720	22.9	8,007	16.0	2,100	2.4	3,106	6.1	2,376	4.7	1,318	3.9	2,142	4.1	678	0.7	
47	50,000	33,000	17,000	34.0	12,785	24.9	4,215	8.4	2,536	5.0	3,500	7.0	3,000	6.0	1,750	3.4	1,085	2.0	914	2.2	
48	49,603	31,577	18,026	36.7	17,597	35.0	4,229	8.8	1,875	2.6	8,210	16.7	3,585	7.3	2,770	5.5	1,274	2.7	627	1.3	
49	47,979	38,979	9,000	18.7	6,856	15.0	2,144	4.5	793	1.6	1,091	2.3	2,772	5.8	627	1.2	570	2.7	300	0.6	
50	47,829	31,088	16,741	35.4	9,475	19.0	7,266	15.0	670	1.5	4,124	8.3	2,307	4.8	478	1.0	602	1.2	1,294	2.5	

51	45,780	26,855	18,925	41.3	16,872	37.0	2,053	4.5	2,100	4.6	3,687	7.8	3,057	6.7	1,618	3.5	775	1.7	5,634	12.5	
52	45,133	32,808	12,325	26.6	15,042	33.3	-2,717	-6.0	856	1.8	8,463	18.5	2,490	5.3	331	0.7	2,716	6.0	185	0.4	
53	45,000	34,000	11,000	24.4	9,473	21.0	5,882	13.0	In	-6.0	1,850	2.4	2,490	5.3	1,131	4.0	1,500	3.3	637	1.3	
54	44,641	28,571	16,070	36.0	9,473	21.0	6,597	15.0	1,739	3.8	2,319	5.1	1,820	3.9	1,782	3.9	600	1.4	1,213	2.7	
55	43,000	24,000	19,000	44.1	15,550	36.1	3,450	7.9	2,000	4.6	5,800	13.5	3,000	7.0	750	0.8	3,500	8.2	500	1.2	
56	42,750	25,436	17,314	40.5	8,481	20.0	8,833	16.0	1,422	3.2	2,618	6.0	2,180	5.0	1,210	2.6	625	1.5	516	1.2	
57	41,592	25,537	16,055	38.6	10,189	25.0	5,866	14.0	1,600	3.8	4,100	9.8	2,890	4.9	1,312	3.2	500	1.8	407	1.0	
58	41,325	24,506	16,819	40.7	13,148	32.0	3,671	8.8	1,187	2.9	5,880	14.1	2,890	6.8	2,100	5.1	500	1.2	591	1.4	
59	40,640	25,847	14,793	36.4	8,834	22.0	5,959	15.0	1,314	3.2	3,916	9.5	1,635	4.0	685	1.7	400	1.0	884	2.0	
60	39,229	26,712	12,517	32.0	7,855	20.0	4,662	12.0	761	2.0	3,167	8.0	645	1.5	1,263	3.1	1,502	3.9	517	1.3	
61	36,384	22,734	13,650	37.5	9,575	26.0	4,075	11.0	1,070	3.0	4,339	1.2	1,976	5.3	1,090	2.8	750	2.1	315	0.8	
62	35,545	22,803	12,742	35.8	6,168	17.2	6,574	19.0	1,114	3.1	3,667	10.0	61	0.2	1,253	3.4	1,740	5.0	74	0.2	
63	34,633	24,522	10,111	28.6	11,411	33.0	-7,300	-3.3	3,600	10.0	2,167	6.3	2,392	6.9	900	2.6	1,740	5.0	612	1.7	
64	33,510	22,219	11,291	33.7	10,105	33.0	1,186	3.3	2,530	7.5	3,415	10.0	2,400	7.0	1,130	3.3	530	1.6	100	0.3	
65	32,870	24,509	8,361	25.5	7,321	21.2	1,040	3.1	2,971	9.0	1,000	3.2	1,100	3.3	750	2.8	1,000	3.2	500	1.6	
66	31,088	19,216	11,872	39.9	6,669	21.0	5,203	17.0	1,360	3.5	3,166	10.0	933	3.0	900	2.9	310	1.0			
67	29,464	18,660	10,604	36.0	6,838	23.0	3,766	13.0	1,400	4.8	2,837	9.7	1,200	4.1	981	3.3	Inc. in 2		420	1.4	
68	28,359	19,997	8,362	29.5	7,602	27.0	760	2.1	1,500	5.4	3,100	11.0	1,300	4.6	1,102	3.9	345	1.2	600	2.1	
69	25,292	16,492	8,802	34.8	7,503	30.0	1,299	4.8	1,830	7.2	2,418	9.5	1,500	6.0	1,410	5.6					
70	24,545	15,673	8,872	36.3	3,399	13.0	5,473	22.0	633	2.5	2,055	8.3	1,500	6.0	553	2.5			158	0.6	
71	24,186	14,946	9,240	38.2	7,352	30.0	1,888	7.5	1,900	7.9	2,760	11.5	1,560	6.7	370	1.4	612	2.5	150	0.6	
72	22,856	15,021	7,835	33.8	4,552	18.0	3,283	1.5	1,451	2.0	1,719	7.7	1,358	5.6	634	2.6	290	1.3	100	0.2	
73	22,793	16,343	6,450	28.3	7,656	34.6	-5.5	-5.5	1,011	4.3	1,382	5.7	3,704	16.1	674	3.0	581	2.6	305	0.9	
74	22,000	13,158	8,842	40.0	8,700	39.0	142	0.64	900	4.1	3,700	16.8	3,380	15.4	520	2.3			200	0.9	
75	20,900	13,480	7,420	37.0	7,262	36.0	158	0.75	1,200	6.0	3,552	16.7	1,160	6.0	670	3.5	400	2.0	280	1.5	
76	20,040	14,000	6,040	30.2	5,136	25.0	904	4.5	517	2.5	1,850	9.0	1,850	9.0	250	1.0			669	3.5	
77	19,431	12,300	7,131	36.7	5,359	28.0	1,772	8.9	920	4.8	2,216	11.5	1,800	9.5	110	0.6	263	1.4	50	0.2	
78	18,000	11,274	6,726	37.2	4,925	27.8	1,801	10.0	900	5.0	1,200	6.7	2,400	13.0	300	1.7	50	0.3	75	0.4	
79	17,864	12,414	5,450	30.5	4,702	28.0	648	3.8	1,068	5.9	2,134	12.0	1,040	6.1	200	1.0	170	1.0	90	0.5	
80	16,560	10,281	6,279	38.0	4,959	30.0	1,320	8.1	900	5.6	1,205	7.5	2,000	12.5	500	3.1	200	1.3	154	0.9	
81	15,345	9,527	5,818	37.9	3,146	21.0	2,672	17.0	650	4.3	1,274	8.5	1,000	6.7	150	1.0	76	0.8	72	0.5	
82	14,220	9,088	5,112	36.4	3,420	24.2	1,692	11.4	830	5.7	1,630	11.4	Inc. in.	-2.0	400	2.9	230	1.4	330	2.1	
83	13,000	9,156	4,844	34.6	6,911	49.0	-2,067	-74.0	986	6.4	3,465	24.0	1,400	10.0	460	3.3	450	2.9	150	1.7	
84	13,629	9,209	4,420	32.5	4,655	35.0	235	1.8	1,200	8.8	1,430	10.0	1,200	8.8	550	4.0	275	2.0			
85	12,784	7,754	5,030	39.3	3,789	31.0	1,241	10.0	984	7.7	1,127	10.0	1,196	9.5	322	2.5			160	1.2	
86	12,253	7,230	5,023	41.0	2,897	23.0	2,126	17.0	660	5.5	1,400	11.0	500	4.0	125	1.0	100	1.0	112	1.0	
87	11,418	7,011	4,407	38.6	2,759	24.0	1,648	14.0	720	6.5	1,560	14.0	375	3.3			104	1.0			
88	10,552	6,100	3,952	39.5	2,100	21.0	1,852	18.0	900	9.0	1,000	10.0	600	6.7	200	2.0	76	0.8	50	0.5	
89	9,674	6,240	3,434	35.0	1,559	16.0	1,875	19.0	642	6.7	750	7.8	800	8.0	170	1.8			78.	0.8	
90	9,361	6,260	3,101	33.0	2,638	28.0	463	5.0	840	0.9											
91	8,720	5,607	3,113	35.7	1,628	18.0	1,485	16.0	620	7.0	925	10.0	1,200	15.4	185	2.3	83	1.0	100	0.7	
92	7,837	4,497	3,340	42.3	2,797	34.6	543	7.0	560	7.5	682	8.8	1,450	18.2	48	0.6	70	1.0	300	3.9	
93	7,713	5,254	2,459	32.4	2,350	30.0	109	13.0	444	5.2	68	0.9	900	12.2	50	6.8	40	0.5	150	2.0	
94	7,417	4,517	2,900	39.2	1,690	22.0	1,210	16.0	300	4.1	290	3.9	300	4.7	95	1.5	189	3.0	94	1.5	
95	6,300	3,940	2,360	37.4	1,903	30.0	457	7.2	541	8.5	684	11.0	300	4.7	95	1.5	60	1.0	100	1.7	
96	5,955	3,960	1,995	33.5	1,566	25.0	429	7.1	496	8.3	550	10.0	260	4.4	262	4.8			797	14.6	
97	5,412	3,194	2,218	40.8	1,571	32.0	645	12.0	372	6.9	140	2.6			330	7.7	75	1.7	45	1.0	
98	4,300	2,400	1,900	44.1	844	19.0	1,056	23.0	144	3.3	250	5.8	300	7.0	70	1.6	40	1.0			
99	4,215	2,571	1,644	39.0	1,049	24.0	595	14.0	324	7.5	315	7.4	300	5.0							
100	3,962	2,515	1,447	36.5	987	26.0	460	12.0	335	10.0	387	10.0	200	5.0					65	1.6	
101	3,750	2,500	1,250	33.3	554	15.0	696	19.0	60	1.6	44	1.2	400	11.0	50	1.3			30	1.0	
102	3,105	1,920	1,185	38.2	725	23.0	460	15.0	300	10.0	270	8.7	100	3.3			25	0.8			
103	2,290	1,344	946	39.6	608	27.0	341	15.0	430	19.6	65	2.8			78	3.4					
104	2,000	1,300	700	35.0	475	24.0	225	11.0	150	7.5	138	7.0	150	7.5			12	6.0	25	1.2	
105	1,987	1,459	528	26.4	470	25.0	58	3.0	300	15.0	300	15.0	200	14.3	125	8.6			170	1.0	
106	1,400	1,851	549	39.2	650	46.0	-101	-7.2	50	3.6	200	14.3	200	14.3	100	10.0	25	1.8	50	3.6	
107	1,400	1,050	350	25.0	1,410	100.0	-1,060	-78.0	300	21.5	200	14.3	500	35.8	100	10.0	210	15.0	100	10.0	
108	1,200	750	450	37.5	206	17.0	244	20.0	65	5.4	15	1.7	120	10.0	5	0.4	10	8.3	6	4.2	
109	900	680	220	24.4	64	7.1	156	17.0	40	4.0					3	0.3			6	0.7	
	7,214,009	4,492,661	2,721,348	37.7	2,132,505	29.5	588,843	8.2	339,485	4.7	861,416	12.0	296,198	4.1	238,963	3.3	107,233	1.5	289,210	3.9	

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but that store No. 5 has included administrative expense under "Occupancy" and store No. 8 has included publicity in this same column. These factors increase the group percentage to the figure given above. The variation in this item of Occupancy Expense is very slight amongst the three groups.

*How much of a factor is the cost of servicing?*

A considerable factor, I would say. For every hundred dollars of sales these dealers had to spend \$1.50 for service over and above any revenue they derived therefrom. This is equivalent to almost a fifth of their net profit. In individual instances this service cost has run up pretty high. For example, Store No. 51 shows a cost of 12.5 per cent of net retail sales; Store 37 shows 6.6 per cent; Store 10 is 4.8 per cent, etc. While it is difficult to give the group figures due to some of the stores not reporting their service costs separately, they are approximately as follows: Group A 1.2 per cent; Group B shows 1.7 per cent and it cost Group C dealers 2 per cent for servicing costs.

The percentage of service costs increases as volume declines. This is very largely due to the fact that service must be maintained in every radio shop regardless of size and the smaller dealer has not as large a spread of sales to absorb it. While an increase in this item from 1.2 per cent for Group A to 2 per cent for Group C may not appear to be very large, it is nevertheless an increase of *two-thirds*.

TRENDS

Now we come to what is undoubtedly the most important phase of our subject, the *trend* in gross margins, costs and net profits in retailing radio. In an accompanying table we have tabulated the figures of the 1926 and 1928 surveys which presents a picture of what is happening.

The *cost* to the radio merchant of merchandising *sold* declined from 66.4 per cent to 62.3 per cent during these two years and accordingly the gross margin increased from 33.6 per cent to 37.7 per cent. As previously explained, this is due to some extent to larger discounts on goods purchased, but especially, I believe, to less "mark downs" taken to move merchandise in stock.

Because of its far-reaching effect, it again should be emphasized, at this point, that the cost of merchandise is *not* the same as the billing price from the wholesaler or manufacturer—it always is greater. This is because certain losses must be taken by the dealer between the time of purchase and the delivery of the goods to the customer. Depreciation, breakage, returns, credits, and special discounts figure in the picture at this point. Therefore, when we state that the cost of merchandise for 1929 of 109 dealers was 62.3 per cent it should not be construed that the average discount these dealers received was 37.7 per cent—they must get *better than this figure* to make the preceding showing.

The item of *Occupancy*, which includes rent and costs having to do with the occupancy of the building, has risen from 4.4 per cent to 4.7 per cent. This is undoubtedly a very natural increase and in line with increases in land values and rentals, although I do not believe this rate of increase will be likely to be main-

tained. The percentage figure for 1928 is quite as high as it can go in my opinion.

*Selling costs* have sharply risen from 9.4 per cent to 12 per cent. The latter figure is very high and is due to the increase in outside selling effort. Inasmuch as our surveys have established a very definite trend toward more widespread outside selling I cannot see where this cost is going to be reduced—in fact it may go higher. It is up to the individual merchant to determine for himself just how far he can go along this line and whether the increased volume justifies the greater expense.

Bear this in mind that while the percentage ratio may show an increase, total net profit *in dollars* also may, or may not, increase. The latter will depend on the amount of increased business as a result of this extra effort.

*Publicity* has declined from 5.1 per cent to 3.3 per cent, a far more sensible percentage of sales to devote to this factor. We attribute this decrease very largely to the more extensive advertising now being done by manufacturers and distributors, thus relieving the retailer of some of the burden. This is a healthier condition and has resulted in better business for all concerned.

*Administration* is less, a decline from 6.4 per cent to 4.1 per cent. The latter figure is still too high but at least progress is being made despite the fact that this is probably a somewhat inexact figure due to the fact that the smaller dealer frequently combines his Administrative and Selling figures because he personally administers the business and also sells as well.

*Service Costs* have risen from 0.5 per cent to 1.5 per cent, or exactly three times as much. This is *not* because present day sets require more servicing, however, but due to the fact that in 1926 some of the service costs were shown as Administrative expense by the dealers. Methods of segregating costs have improved in the last few years, so that we are now getting a truer

(Please turn to page 96)

Comparison of Costs for  
1926 and 1928

In the July, 1927, issue of RADIO RETAILING, was presented a cost study of the business of 48 typical radio dealers for the year 1926. The following is a comparison of trends since then:

Subject	Percentage of Gross Sales	
	1926	1928
Cost of Merchandise.....	66.4	62.3
Occupancy.....	4.4	4.7
Selling.....	9.4	12.0
Administration.....	6.4	4.1
Publicity.....	5.1	3.3
Servicing.....	0.5	1.5
Other Costs.....	2.9	3.9
Net Profit.....	4.9	8.2
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>

For the explanation of these changes see Mr. Ryan's comments under the sub-heading "Trends."

## Buying Factors During the Past Five Years

1925	1926	1927	1928	1929
1. Distance	1. Tone	1. SIMPLICITY	1. A.C. Operation	1. Tone
2. VOLUME	2. SELECTIVITY	2. Tone	2. Tone	2. PRICE
3. PRICE	3. Appearance	3. A.C. Operation	3. Appearance	3. SELECTIVITY
4. Tone	4. PRICE	4. PRICE	4. PRICE	4. Appearance
	5. Distance	5. Distance	5. REPUTATION	5. REPUTATION
	6. SIMPLICITY	6. Appearance	6. Distance	6. Screen-Grid
	7. A.C. Operation	7. REPUTATION		

# WHAT

*Factors that are influencing fall buying — the consensus of opinion among 1,000 merchants surveyed by Radio Retailing.*

# Does the Public Want?

**N**OW that the public has been shown the radio manufacturers' fall offerings and inasmuch as the year's peak selling season will be crowded into the next three months, let us stop to consider for a moment the various factors that are influencing the buying public at this time.

To be sure there are many qualities that must be incorporated in receiving sets before they will find public acceptance. But each year we find there are several very definite qualifications that prospective purchasers are demanding when they enter the radio store to buy a receiver.

It has been the custom of *Radio Retailing*, each year, to ascertain by a direct survey of the trade, just what these public demands are. On this page we have the results of such a survey just completed, which is the consensus of opinion of over 1,000 merchants scattered throughout these United States.

Quality of reproduction or tone, which has always held a place near the top, is, this year, the primary requisite. Price follows with second place. This is as it should be in any normal industry and reflects the stabilization of the radio industry with its concurrent keener competition among manufacturers. As with other products of necessity or utility, the first thought is to operation and then to cost.

Due to technical improvements in receivers resulting in greater sensitivity, selectivity is third choice. This factor has become a necessity in the present-day broadcast set-up with the great number of stations in operation.

Appearance, although in fourth place, is highly important. Furniture design has been vastly improved during the past year in order to meet the critical eye of the housewife, who, more and more, is guiding the purchase of the radio receiver.

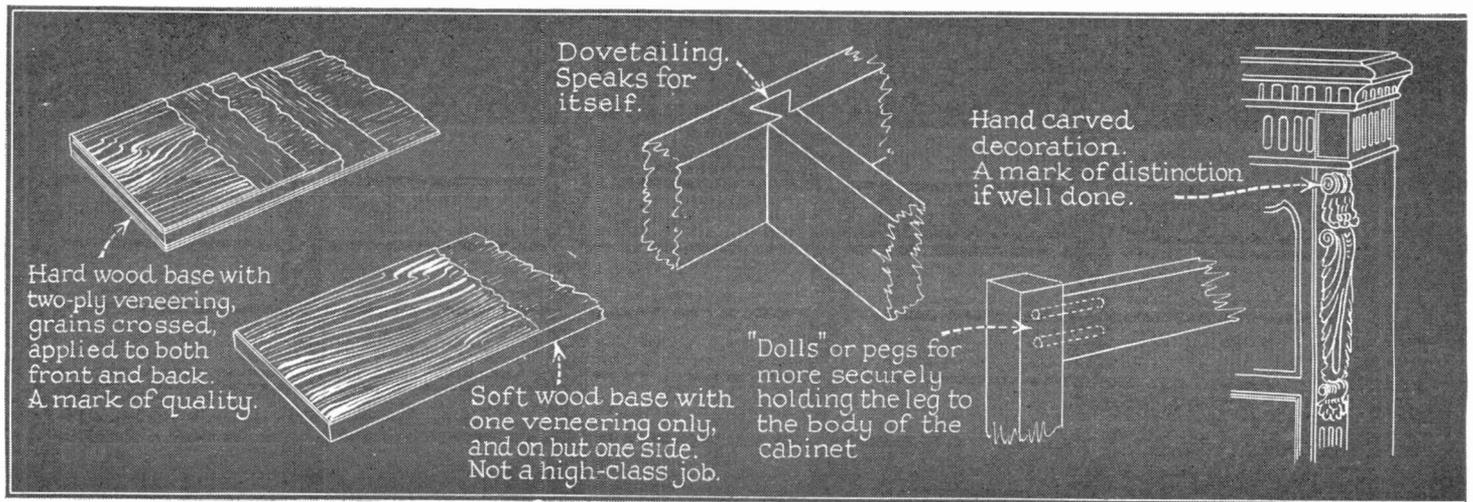
The manufacturer's reputation occupies fifth place. Surprising as it may seem, screen-grid comes sixth. Although we see it played up in advertising all around us, and hear it talked about, there is still a good deal of doubt in the public's mind as to just what it consists of. Many do not understand just what this development is, and in most cases the question is asked, "Does it improve the tone and operation of the receiver?" In other words, the public no longer is particularly interested in fancy names for circuits or in technical developments unless the result is made evident to the ear.

Very little interest is shown in either remote control or automatic tuning as these developments are so new to the public that they are not as yet particularly concerned with them.

**T**HE a.c. set, for which there was such a rush last year, has become a matter of fact and necessity today. The desire for deep, booming base notes at the sacrifice of the higher frequencies has gradually diminished. Today we find all audible frequencies represented but with balance and equality.

Other factors, such as simplicity of control, volume, and distance-getting ability have dropped out of sight so far as public demand is concerned. These are now considered fundamental and are found generally incorporated in all receivers.

It is therefore evident that dealers who have a line of receivers embodying good tone quality, an adequate price range and attractive cabinets can rest assured that they are in a position to satisfy Mr. and Mrs. Public whenever they step into the store. And if you believe that your stock has all these requirements, then redouble your efforts and for the next three months *sell* to the utmost of your ability.



# The Constructional Marks

IN FEBRUARY we published a furniture article on the subject of period designs and how to recognize them. Merchandisers of radio cabinets should be posted not only on style but on the finer points of *constructional* workmanship as well.

A dealer has a fighting chance of moving a well built cabinet, even though it may be a bit off style—but wood-work that obviously is falling apart is a total liability.

What, then, are the marks of master-craftsmanship? What are the identifying signs that the lay dealer can use to check his general impressions? There are three matters to consider: the wood, the finish, and the technical construction.

First the wood itself. If a piece of furniture is represented as being mahogany, walnut or oak, the dealer should make sure that all exposed parts of the piece really are of this wood. Suppose it is a mahogany console. Then the surfaces should be solid mahogany or mahogany veneer, and the posts and cross supports of solid mahogany. The same applies to the other woods.

Right here it should be stated that veneering, *if properly done*, frequently is to be preferred to the solid slab. Veneering, of itself, is not the mark of cheap furniture, in fact it frequently is needed to strengthen a panel or to prevent a large surface from warping.

IN WOODS the matter of style also must be considered. For example: walnut is characteristic of the Queen Anne period. If a dealer is buying Queen Anne cabinets then walnut should have the preference.

Secondly, there is the matter of finish. This is something that the dealer cannot see; he can only ask how the furniture is finished, and take the manufacturer's word for it that what he says is true—one reason for buying from a reputable manufacturer. The cabinet may be varnished, in which case assurance should be

*What's behind general cabinets — a guide for*

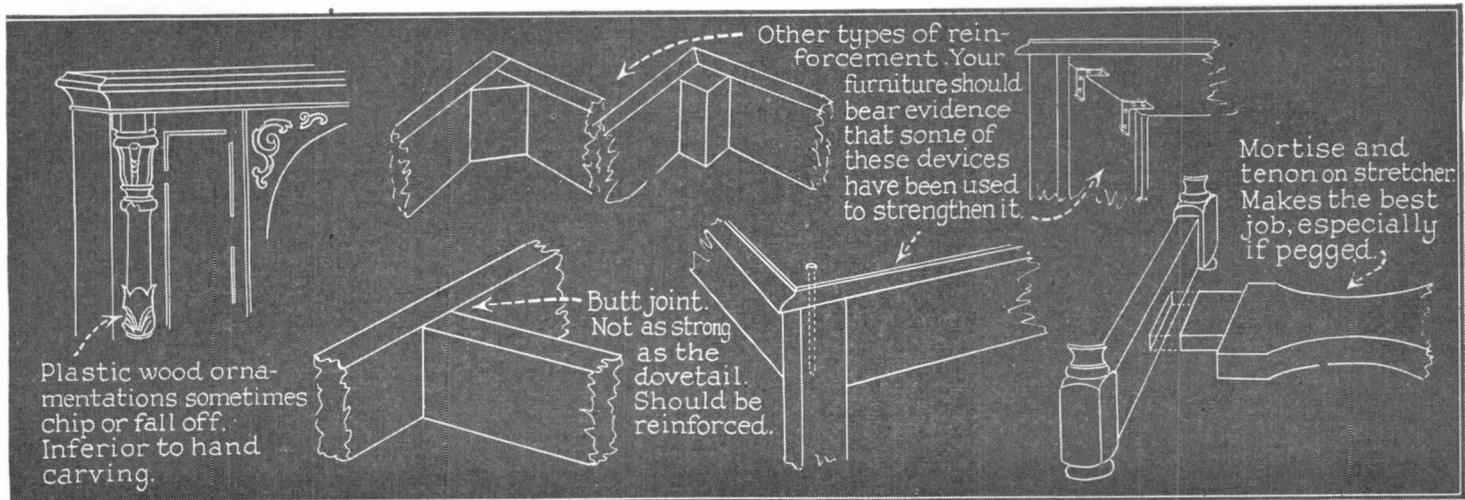
By C. L.

had that three coats have been applied. It may be waxed, a finish that gives a particularly soft velvety texture. Duco finish eliminates the necessity for several coats of varnish. It makes a satisfactory appearance and is cheaper than elaborate hand rubbing.

SOLID wood can be, and generally is, hand rubbed whereas veneering frequently is varnished. This latter finish not only is less expensive but the varnish helps keep moisture from the glue. A varnish finish is, as a rule, considered better than shellac.

The finish must, of course, be appropriate to the wood involved. Oak, for instance, used chiefly in Italian or Spanish pieces and in some early English furniture, is a rather coarse-grained wood by nature, and should be finished to emphasize this characteristic. Mahogany, on the other hand, being very finely grained, should have a perfectly smooth finish showing the fine grain, and a soft lustre that can be compared to that of satin in textiles. Incidentally, the woods in most common usage for furniture are mahogany, walnut, maple, pine, and oak, with cheaper types represented in birch and gum wood.

In the matter of actual technical construction, there are many standards, as is natural. Manufacturers specializing in a hand-made product of the finest grade employ methods and material and workmanship con-



# of Good Furniture

*appearances in radio thoughtful buyers.*

## Eaton

sistent with the grade and with the retail price the furniture will ultimately bring. On the other hand, such standards are out of the question applied to furniture intended for sale at average prices. It is, therefore, impossible to lay down a set of fixed rules by which the dealer can positively identify good construction. There are only certain guide-posts by which he can judge whether or not a cabinet is structurally suitable for his merchandising purpose.

Large surfaces, such as table tops or the sides of cabinets and cupboards, should always be laminated. That is, they should not be made of a solid piece of wood but should consist of three or five—preferably five—layers of very thin wood laid together with the grain running in *alternate* direction. This arrangement balances the “pull” of the wood and prevents the surface from warping. The central layer, or core, should be of a dead wood, and that this is true can be verified by inquiring of the manufacturer. By observing closely the edge of a wood surface the different layers can be seen faintly, for it is impossible to conceal completely the joinings.

**D**OVETAILING is the most universally employed method of fastening joints. This term needs little explanation as it is in such common usage in many fields. It is simply the matching together of notches to fit perfectly tight, and is called tongue-and-groove method.

In joining a leg post to the body of the furniture “dolls” often are used. These are pegs inside the post which extend into the body. It is wise to guard against artificial pegs, put in for appearance’s sake to simulate the real pegs used in fine old furniture when needed for strength.

A piece of furniture built with drawers should have dust linings between the drawers—a sign of good construction. When the doors to a cabinet are glass, either in solid panes or in small panes worked together to form a design, the wooden fretwork may be laid over the surface of the glass instead of being inset between the panes. This newer method makes for strength and facilitates cleaning.

**G**OOD workmanship in the matter of carving can be checked by nothing whether or not the work is hand or machine done. The latter is symmetrical in every way. The former necessarily has little irregularities of design and workmanship which readily mark it as work done by hand and therefore of greater worth.

Of late years “plastic wood” and clay have been used for decorative purposes on the less expensive pieces of furniture. Such expedient materials chip easily and look “machine-moulded.”

Reinforcement devices are the final marks of sincere workmanship. The accompanying sketches, with their captions, speak for themselves.

In conclusion, the dealer is urged never to contract for a substantial lot of radio furniture without first checking it, in person and by questioning the vender, by the preceding tests, as well as satisfying himself that the goods will “hang together” because their points of structural weakness, the joints, have been strengthened in one or more of the ways here shown.



**ALFRED P. SLOANE, JR.**  
*President of General Motors,  
 which will control 51 per cent  
 of new radio company.*

# General Motors

## Enters

# RADIO

*Merchandising Plans Still Incomplete. Statements by Vice-President John T. Smith, Radio Head for General Motors, and David Sarnoff of R.C.A.*



**DAVID SARNOFF**  
*Vice-president and general manager  
 Radio Corporation of America, who  
 negotiated license plan with General  
 Motors.*

A \$10,000,000 corporation, owned 51 per cent by the General Motors Corporation and 49 per cent by the Radio Corporation of America, is being organized as this issue of *Radio Retailing* goes to press, and will manufacture and sell radio sets to the American public under R.C.A. license.

Reports have been current that the new corporation will distribute through existing merchandising outlets of the General Motors group, either the automobile dealers or the Frigidaire electric-refrigerator sales agencies. Other stories have had it that a new chain of retail stores is to be set up with General Motors capital, such stores to sell radio sets, automotive electrical equipment, and electric refrigerators. Recent purchase of the Day Fan Electric Company of Dayton, Ohio, and the North East Electric Company of New York, by General Motors, have given color to the reports that a new radio-electrical subsidiary is in the making.

It is known that negotiations concerning the entry of the billion-dollar General Motors Corporation into the radio field have been going on during the last month. The principals in these conferences have been David Sarnoff, vice-president and general manager of the Radio Corporation, and John Thomas Smith, vice-president of General Motors at New York City, who has been given full authority in this radio matter by President Alfred P. Sloane, Jr., and the other directors.

### *Distribution Plans Now in the Making*

When interviewed at New York on Sept. 30, by a

representative of *Radio Retailing*, as this issue went to press, Vice-President Smith declared that the new radio company was still in a state of negotiations and discussion, and that no policies had been determined or conclusions reached as to the distribution channels to be employed.

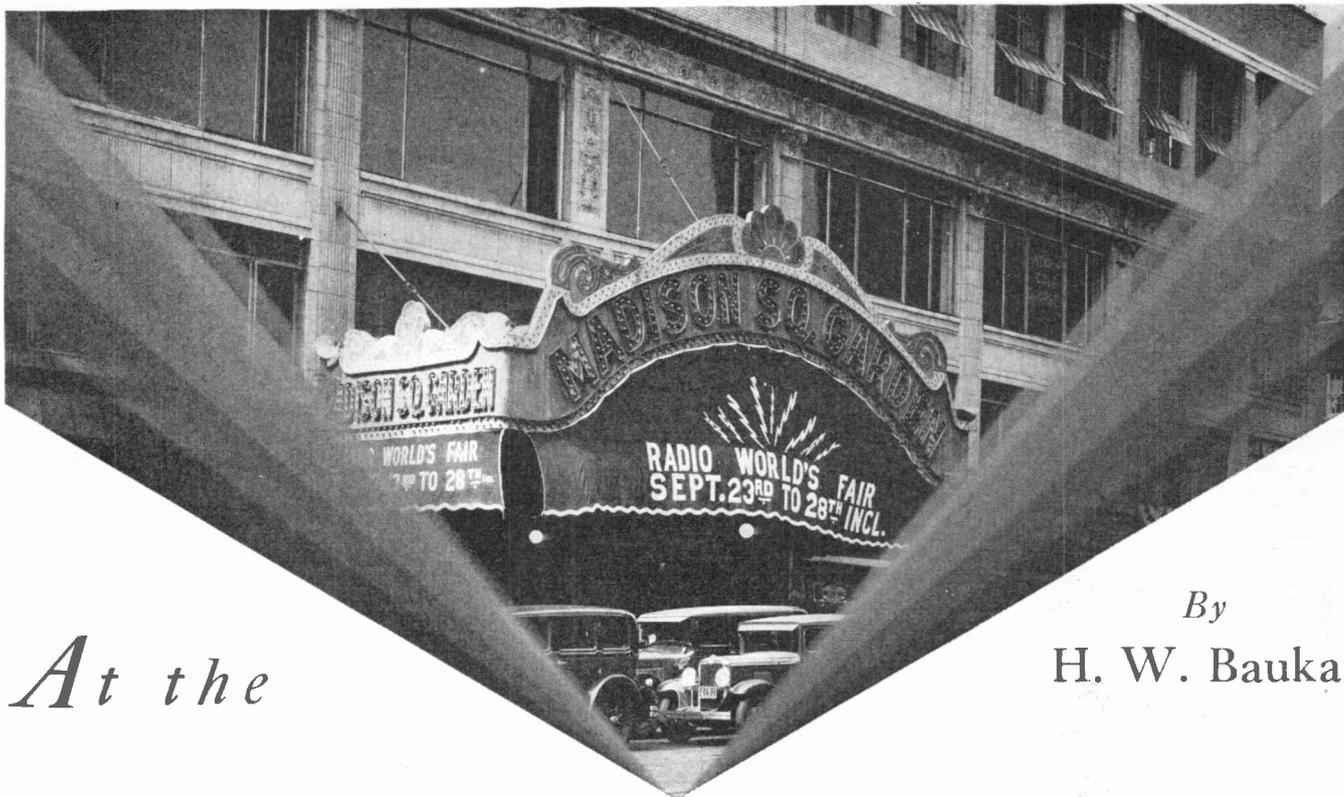
"The name of the organization, its relation to the other subsidiaries in the General Motors family, its officers nor its personnel have not yet been decided," said Mr. Smith.

"We, ourselves, do not know, at this moment, what our retail sales plan or policy will be. We are still studying this distribution problem but we have as yet arrived at no conclusion concerning our future plan of operation. A good deal of conjecture has been indulged in by the public, and altogether too much publicity has been given in the press thus far, concerning our supposed program.

"We recognize the interest of the public and particularly the radio trade in the situation and just as soon as we have completed our program of policies and our plan of organization, a full statement will be made."

Mr. Sarnoff, when requested by *Radio Retailing* for a statement, preferred to make no comment regarding General Motors' radio plans, except in so far as the new arrangement will effect the distribution of Radio Corporation products. Concerning this aspect, Mr. Sarnoff said:

"Articles have recently appeared to the effect that  
*(Please turn to page 95)*



By

H. W. Baukat

*At the*

# 1929 New York Show

*Receiver designs and trends for 1930 displayed to public  
—association activities reveal better broadcasting plans.*

WITH the advent of the Sixth Annual Radio World's Fair, held in New York, 1930 radio was officially offered to the public. As a result of the past year's development great improvement is seen in the new models. There have been certain technical developments such as screen-grid tubes and the automatic volume control, as well as advances in speaker construction and in the capability of circuits to take care of greater undistorted output. All have played a part in giving this year's radio receivers finer tone qualities than ever before.

A significant thing is that most of the sets look alike. One would imagine that a single furniture manufacturer made all of the cabinets. There is a difference of opinion as to whether this standardization of design is a step in the right direction. Certainly it takes away much of the confusion of many models and designs. We see now, for the first time, the beginning of an era of an honest endeavor at radio engineering design standardization. This is but natural when it is realized that the radio-buying dollar is constantly approaching the value of the automotive-buying dollar. Walnut has become the popular type of cabinet wood. Hardly any mahogany is in evidence. For table type sets we find the pressed steel cabinet continuing as the best solution of the price and quantity production problem.

Prices are lower than ever and a good table type set can now be had for about \$90, less accessories, while a console set can be purchased for \$250. Radio-phono-

graph combinations are increasing in popularity with prices rapidly adjusting themselves so that this added feature is to be had for but slightly more than the straight radio console.

Solid steel chassis construction is now practically universal among manufacturers. This sturdy metal, together with brass and aluminum composes almost entirely the shell upon which the modern radio set is built. Bakelite is still the favorite insulation.

Remote control devices and automatic tuning apparatus are very much in evidence. Without a doubt, by this time next year these features will be found incorporated in many sets. Today they are more of an experimental curiosity although a few sets are already to be found with them. A healthy public demand for these devices is reported.

THE electrostatic speaker, a recent development, is also being offered in a new console. While this seems to have great possibilities it is too early to predict its ultimate success. Dynamic speakers still predominate. During the past year, great improvements have been made both in material used and in the assembly of these speakers resulting in superior reproduction.

Television is as interesting as ever, although the public is no longer being stampeded by it. Present displays show a refinement of apparatus, during the past year, rather than any great advance in the art. Prominent

*(Please turn to page 95)*

*Galperin's—For Music*

A \$100,000 Organ  
Playing for You At  
the COOKING SCHOOL!



THAT'S the effect you'll get when you hear the marvelous new Automatic Electrolas with which we shall entertain you for 30 minutes each afternoon of the Cooking School. So magnificent is the music of this great instrument, that you have but to close your eyes to believe the artist is there before you in person. A glorious world of illusion!... in this last word of musical luxury!... Concerts from 1:30 to 2:00 p. m. each afternoon. You'll not want to miss them, we're sure!

**GALPERIN'S**

*Galperin's—For Music*

# It Takes

# An

*The cooking school is an excellent place to feature radio music.*



**I**T TAKES an "opportunist" to sell \$24,000 worth of quality combination sets in a trading population of 60,000—a merchant who is quick to see and to utilize every occasion, event or circumstance, which may lend itself to the promotion of his store and his radio-phonograph products—according to S. H. Galperin, president of the Galperin Music Company, Charleston, W. Va.

Last year Galperin sold 26 combinations at an average price of \$925. He did this because his organization talked "combinations" to every radio prospect. To date over 100 reproducers of both radio and phonograph music have been sold because of this policy of "cashing-in" on public-interest events.

"Our objective was to sell not simply a radio receiver but to do a *real* job by working up the prospect to the desire and action points on a \$400 to \$1,200 article—a sale which also would add another customer for records for months to come," declares Mr. Galperin.

In view of the fact that last year this house did a business in records of almost \$100,000, the wisdom of this policy is self-apparent.

"Selling combinations," Mr. Galperin continues, "is not alone a matter of understanding the worth of recorded musical selections, and of having an adequately stocked record department in the charge of a competent person, but it involves also a generous amount of inside and outside promotional activity. This, in order that one's house may be distinctly registered in the public's consciousness as representing everything that is live and reputable and modern in the merchandising of musical

entertainment, thus providing a background of confidence for the sale of comparatively high-priced musical instruments—

particularly radio-phonograph combination reproducers

**T**AKE, for instance, Galperin's cooking school tie-in, an "opportunist" idea that netted him half-a-dozen sales. Where, you ask, is the hook-up between "Mix one cup sugar and equal amount of sour cream, boil to soft ball stage," and Schubert's Unfinished Symphony? Simply this, women who attend cooking schools like to hear a little good music between lectures—and S. H. Galperin was "Johnnie-on-the job,"

"No, you can't eat music," he said in one of his quarter-page ads publicising this event, "but what miracles music performs with digestion! Music should be a vital part of every meal."

The "Voting Contest" was another, self-originating idea for marking Galperin's as West Virginia's musical headquarters.

Every five-cent purchase entitled the customer to one vote. "For instance," said the circular headed 'Galperin's Tenth Anniversary Gifts to the Public,' "with the purchase of a 75-cent record you may cast 15 votes for your favorite religious institution, school or lodge." A \$500 combination was given to the institution receiving the second highest vote in this \$1,750 contest.

# O *pportunist*

*Like*

S. H. GALPERIN

*to create situations promoting an appreciation for good music, and for publicising one's store in order to sell combinations.*



The stunt increased Galperin's business during June 30 per cent over normal; it secured the names of hundreds of new customers, and got a combination set in one of Charleston's leading public institutions.

Then there was the free concert, during "Music Week," and an essay competition project.

Galperin presented an exceptionally high quality program of chamber music by a string quartet to which music lovers were admitted without charge. At this affair, staged in the Woman's Club, he featured, by display and tactful demonstration, one of his better types of combination instruments—another source of names and of pertinent publicity.

The essay contest consisted of a prize of \$50 for the best essay on the value of a musical education, and how a radio-phonograph combination would aid in the accomplishment of this endeavor.

"Opportunity selling," says Galperin, "should also extend to the individuals in one's organization. I require that each salesman, or saleswoman, identify himself or herself actively with some outside interests, a church, lodge, or a civic movement, and, particularly, some musical enterprise. Personally, I belong to an orchestra and also have promoted the municipal band.

"But the creating of opportunities for promoting an appreciation of good music and of publicising one's store is only the first step in the sale of combinations," states Mr. Galperin. The *real* selling job frequently begins *after* the radio set has been sold. The next step in the selling process is to switch well-to-do customers to a combination outfit. This takes place, in the store, by always demonstrating a specially selected record or a de luxe radio-phonograph cabinet, and, in the home, by a deliver-

ing a combination *with* the original purchase—"so that you may try it out, at our expense, in your home."

"Not less than ten duo installations were sold in 1928 *after* the prospect had stated that he, or she, would take a straight radio," Galperin states.

If a combination is purchased within 60 days from date of the original sale, full allowance is granted on the radio set.

**H**OW many dealers think of this? Furthermore, how many "follow-up the follow-up"? By this is meant calling on combination owners twice a year to see that they are using the phonograph part of their console. Galperin does. He has a man call with a carefully selected group of the best and most recent releases.

This man states that he is there merely for the purpose of playing, for the customer, a few of the latest offerings. Result:—live leads and an average sale of records, per customer per year, of \$60.

In preparation for this work the store maintains a card file of owners and non-owners of combination and phonograph instruments. Each card bears a notation of the *musical tastes* of that particular person.

Here's a clever follow-up stunt! Our Charleston progressive advertises that he will oil and condition old phonographs free of charge. Just another way of checking up on prospects for radio and combination outfits—and of selling more of those profit-making records.

Does the follow-up pay? Well, this modern music merchant sold over \$94,000 worth of records from July, 1928 to July, 1929. He disposed of 346 Victor Herbert albums at \$6 per album, and he is netting over nine per cent from this end of his business.

# Radio's Vast RURAL and REPLACEMENT Markets



APART from the 12,600,000 wired homes in the United States still without radio service (65 per cent of the total number of houses on the lines of the power companies) there are two other vast markets for modern receivers—the unelectrified home and the “replacement” prospect. Together they approximate 9,500,000 prospective buyers—32 per cent of the entire number of families in this country.

## The Unelectrified Home

States	Battery Set Prospects		Per Cent of Sets Sold in 1928	
	Wired Homes	Unwired Homes	Socket Power	Battery
Alabama.....	133,900	466,100	91	9
Delaware.....	26,430	31,570	84	16
Florida.....	133,700	178,300	88	12
Georgia.....	135,600	610,400	87	13
Indiana.....	515,600	228,400	86	14
Iowa.....	328,200	247,800	70	30
Kansas.....	274,600	159,400	65	35
Louisiana.....	104,300	350,700	92	8
Minnesota.....	384,750	247,250	73	27
Missouri.....	541,500	288,500	82	18
Ohio.....	1,228,000	342,000	85	15
North Dakota..	46,400	106,600	57	43
Texas.....	491,900	778,100	87	13
Virginia.....	167,200	428,800	77	23
Wisconsin.....	443,900	241,100	81	19
Wyoming.....	30,200	25,800	70	30
Totals.....	4,986,180	4,730,820		

*Note that in 16 typical farming states over 48 per cent of the homes are unwired—estimated by Electrical World.*

Twenty-four per cent of our total market for radio receivers lies in unelectrified territory. This figure was obtained by dividing the estimated net number of worthwhile families living in unelectrified houses (6,300,000) by the number of substantial families in the United States (25,800,000).

Wired homes in the entire United States (projected as of Oct., 1929).....	19,500,000
Unelectrified homes in the United States.....	10,300,000
<b>Total.....</b>	<b>29,800,000</b>

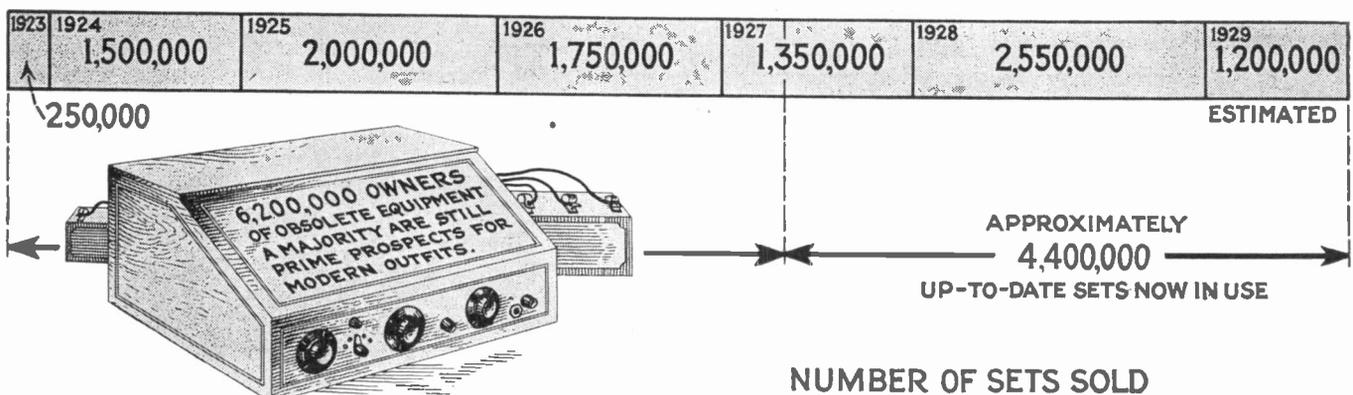
Estimated number of unelectrified homes with low purchasing power..... 4,000,000

**Summary**

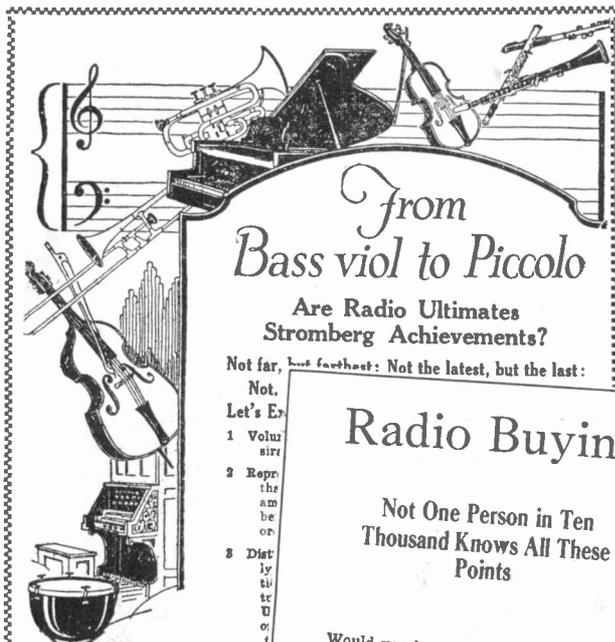
Estimated number of live prospects for battery operated receivers in the United States.....	5,000,000
Estimated number of “replacement” prospects.....	4,500,000
<b>Total number of “secondary?” prospects (in reality primary sources of sales).....</b>	<b>9,500,000</b>

Or 32 per cent of the entire number of families in the United States.

## Our Replacement Market



# Analyzing the FACTS in Advertising Copy



From  
*Bass viol to Piccolo*  
Are Radio Ultimates  
Stromberg Achievements?

Not far, but farthest: Not the latest, but the last:

Not.  
Let's Ex-

- 1 Volume
- 2 Reproduction
- 3 Distinctly

- 4 Musical Range—seven octave dis-  
What more can be desired? Ma-  
there is there a single manufa-  
the curve of his set or making  
tion? This new patented exclus-  
ground from under every 3½ o-  
new ultimate for all makes to
- 5 Station or Wave-  
Length Range—the entire bro-  
don't even cover the broadcast
- 6 Curve of Audibility—practically  
and over all wave lengths high!
- 7 All Musical Instruments  
And Voices—and nothing less  
voices can be an ultimate. Ho-  
than seven octaves compass  
he ever expects to hear all  
Orchestra right where they  
not stepped-up or altered or
- 8 Voicing—natural, unaltered. V-  
pitch-quality is absolute. The  
radio cease to sound like—  
listen to a Soprano Solo to  
voiced. But there isn't more  
ness.
- 9 Balance—accompanying or su-  
wide range hearable with  
instrument without domi-  
Achievement. Ordinary radi-  
ment too light or with out-  
sufficiently audible—the es-  
wanting, and in extreme ce-  
entirely.  
The transformers of such  
Musically such sets have r-  
Stromberg ultimate.
- 10 Selectivity—as great as pos-  
bands of the carrier-wave  
to Musical reproduction.

## Radio Buying

Not One Person in Ten  
Thousand Knows All These  
Points



Would you know whether the high and low tones come in with equal power to the middle register?  
If they do, the reception is balanced—the response curve is flat.  
Could you differentiate the bass drum from the timpani—the Souda- phone from the string base?  
If you can, the set is probably not voiced too low.  
Does the bass sound like a baritone, a baritone like a tenor, a con- tralto like a soprano, and a soprano like —  
If so, the set is voiced too high. Voicing requires an acoustic en- gineer, not just an electrical engineer.  
This is why most radio sets are wrong—they never have been voiced.  
If the low voiced instruments can not be heard in the same octave pitch played but are stepped up one or more octaves (if heard at all) then the set or speaker or both lack compass or octave range. To accept a 3½ octave equipment when the orchestra covers seven octaves is not buying intelligently.  
Is the tonal-outline precision-cut or is it lacking in definiteness?  
If the latter, the set lacks capacity.  
Not one person in ten thousand can tell these simpler points when testing a set.  
Consequently they pay good money for primitive radio, then be- come dissatisfied when they learn what a good set requires.  
Buy of Specialized Electrics where Radio goodness is understood, your interests guarded and musical requisites provided.  
Buy here and you buy intelligently your second or third set first and thus save money.  
Sets of advanced engineering. Chosen from the best of the World's Greatest Radio Show. Just coming in.

Sold on Payments  
**Specialized ELECTRICS**  
The Mystery of Good Music  
P. A. WILLIAMS

334 West Main St. Kalamazoo, Mich. Dial 7358

*The use of proofs to  
sell the prospects*

asked the public to let him demon-  
strate that his sets met these exacting  
requirements.

Here are the things that this con-  
cern has been pounding home these  
past two years—Volume; Repro-  
duction; Distance; Musical Range;  
Wave-Length Range; Curve of  
Audibility; Musical Instruments;  
Voicing; Balance, and Selectivity.

Each feature was followed by a  
short paragraph which first defined  
the true meaning of these words, as  
applied to radio, and then gave, as  
simply as possible, the reasons why  
Williams' sets would fill the bill.

IT WAS explained, for example,  
that electrical amplification and reso-  
nance obtained the 'Blank' way makes  
ordinary tones sound extraordinarily  
beautiful." It was stated that "the  
complete musical range means seven  
distortionless octaves, or the entire  
compass of the Grand Orchestra;  
that the 'curve of audibility' is prac-  
tically a straight line over all fre-  
quencies with a quality set; that the  
notes must be reproduced in their

true fundamentals; and that 'voicing' means natural,  
unaltered pitch from base to soprano." Balance was  
defined as: "the ability to reproduce with equal facility,  
the solo and the accompanying voices or instruments  
without either dominating." "Selectivity," read the  
advertisements, "should be as wide as possible without  
cutting into the side-bands of the carrier-wave and thus  
eliminating the overtones so essential to true repro-  
duction."

Dealers who run this kind of copy should first study  
the outstanding virtues of the sets they are handling,  
according to Williams. Then they should feature these  
talking points and explain just *how* and *why* their  
product does what is claimed for it. The introductory  
advertisement could be followed with a series of shorter  
ads., each devoted to a more detailed presentation of a

(Please turn to page 95)

"Tell the story if it  
takes a page," says  
Williams.

WHAT can be done to make newspaper adver-  
tisements distinctive? How can the radio dealer  
capture the attention of the casual readers and  
impress his house and his product on their consciousness?

Although the advertisements used to answer these  
questions do not feature today's reproducers, the lessons  
they teach are just as pertinent.

"Forget the 'glittering generalities,' get down to  
specific 'whys and wherefores.' Register your points of  
supremacy and then follow through with definite state-  
ments which define and prove each claim," states L. A.  
Williams, owner of the Music Shop, Kalamazoo, Mich.

Williams' object was to gain the interest and con-  
fidence of his public by demonstrating that the Music  
Shop knew its groceries. He did this by listing ten  
things that every user has a right to expect from a radio  
set. These he called the "ultimates" of radio. Then he

# When the CAMERA



**T**HERE are many sidelines for the radio dealer to choose from, and home movie equipment is fast proving itself a very attractive and profitable addition to any radio store. How the Rabinowitz brothers, David and Meyer, who operate the RabSons store at 1374 Sixth Avenue, New York City, have realized the possibilities of this new and interesting merchandise is told in the following article.

"To begin with," relates David Rabinowitz, "it was as far back as 1923 that we decided we would have to add some sort of merchandise to our stock to compensate for the summer slump in our radio sales. About this time a radio dealer in New Jersey told us that he had been approached by a sales representative of a moving picture concern and that the salesman had demonstrated a small movie camera that was capable of taking actual movies on a narrow width film. He also informed us that the camera was very easy to load, and the raw film cartridge inexpensive. He also told us that the entire outfit retailed for \$97.50 which allowed a good margin for profit. We were delighted with this news and ordered half a dozen outfits to start with. When these outfits were delivered we were instructed how to take the pictures by a company representative. He also told us what sales methods were best to use.

The first six outfits were quickly sold and our next



# Clicks= Profits Roll In

*Read how these two brothers are doing a \$96,000 "side line" business in home movies.*



order was for many times the original order. Then we added various accessories along with these outfits, such as screens, tripods, lenses, and repair outfits. At the close of the year we found that we had sold \$3,000 worth of home movie equipment.

In 1924 we decided that we would do better and therefore spent more time and effort in selling home movies. Our results at the end of the year proved that the effort was worth-while and that our camera business was increasing as our records showed that we had done a business of \$7,850 in this new venture. Of course, during this year, we added a line of Kodaks, hand cameras, film, and developing and printing supplies.

Then in 1925 we added the Eastman Company's Ciné Kodak to our line of home movie equipment which increased our sales. At the close of 1925 our records showed \$11,000 actual retail sales.

IN 1926 we added the Bell & Howell line and the results at the end of the year showed an increase of \$7,000 over the previous year. In other words by stimulating our sales efforts and extending our lines, we had actually done \$18,000 worth of business in home movies and hand cameras for that year.

By 1927 we had added other popular makes of home movie equipment and increased our business almost double that of the previous year, doing a total business of \$34,355. At the start of 1928 our stock consisted of all the reliable makes of motion picture cameras, and projectors, both American and foreign.

At the close of 1928 we found our "sideline" had in-

creased to \$96,000, gross retail sales. At the present time we sell about 400 rolls of ciné film a month. Of course during all this time our radio business had increased also and a glance at our records shows that last year we grossed \$347,000 in radio alone. The grand total for our entire 1928 business, resulting from sales in phonograph records, out-board motors, fountain pens, home movie equipment, and radio, was \$510,000, and our present stock turnover is 15. So you can see from this what a profitable business can be built from home movies combined with radio.

Our stock on hand in home movie equipment has increased from a few hundred dollars worth to our present inventory of about \$9,000.

We have two outside salesmen, but radio keeps them very busy and you mustn't forget that we are primarily a radio store. However, they are cautioned to keep on the alert for new customers for movie equipment. They have been instructed to ask customers while making home demonstrations, if they have a home movie camera or projector. In this way we line

up prospects for future camera business.

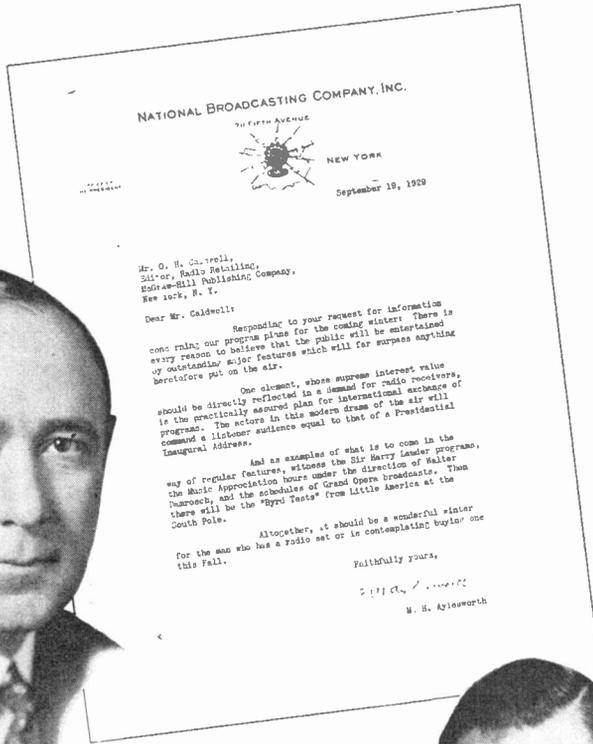
"Personally, I would not advise any dealer to take on home movies and expect home movie equipment to sell itself or expect customers to walk into the store and say wrap me a 'so and so' projector or camera. This

*(Please turn to page 95)*

## *Here is an enviable* Six-Year Home Movie Sales Record

Year	Gross Business
1923	\$ 3,000
1924	7,850
1925	11,000
1926	18,000--
1927	34,355
1928	96,200

# More Sterling



NATIONAL BROADCASTING COMPANY, INC.  
30 FIFTH AVENUE  
NEW YORK  
September 19, 1929

Mr. O. H. Caldwell,  
Editor, Radio Retailing,  
Eaton-Wells Publishing Company,  
New York, N. Y.

Dear Mr. Caldwell:

Responding to your request for information concerning our program plans for the coming winter: There is every reason to believe that the public will be entertained by outstanding major features which will far surpass anything heretofore put on the air.

One element, whose supreme interest value should be directly reflected in a demand for radio receivers, is the practically assured plan for international exchange of programs. The actors in this modern drama of the air will command a listener audience equal to that of a Presidential Inaugural Address.

And as examples of what is to come in the way of regular features, witness the Sir Harry Lauder program, the Bunkie Appreciation hours under the direction of Walter Damrosch, and the schedules of Grand Opera broadcasts. Then there will be the "Sybil Tests" from Little America at the South Pole.

Altogether, it should be a wonderful winter for the man who has a radio set or is contemplating buying one this fall.

Faithfully yours,

M. H. Aylesworth

"The public will be entertained by outstanding major features which will far surpass anything heretofore . . .

"One element . . . is the practically assured plan for international exchange of programs . . . will command a listener audience equal to that of a Presidential Inaugural Address.

"Altogether, it should be a wonderful winter for the man with a set."

M. H. Aylesworth,

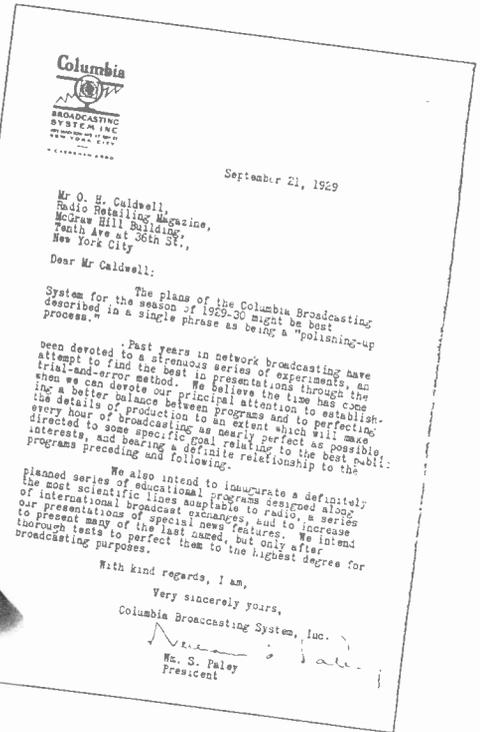
President, National Broadcasting Company, Inc.

"The time has come when we can devote our principal attention to establishing a better program balance . . .

"We also intend to inaugurate a definitely planned series of educational programs . . . a series of international broadcast exchanges, and to increase our presentations of special news features."

William S. Paley,

President, Columbia Broadcasting System, Inc.



Columbia

BROADCASTING SYSTEM, INC.

September 21, 1929

Mr. O. H. Caldwell,  
Radio Retailing Magazine,  
McGraw Hill Building,  
1230 Ave. at 36th St.,  
New York City

Dear Mr. Caldwell:

The plans of the Columbia Broadcasting System for the season of 1929-30 might be best described in a single phrase as being a "poisoning-up process."

Past years in network broadcasting have been devoted to a strenuous series of experiments, an attempt to find the best in presentations through the trial-and-error method. We believe the time has come when we can devote our principal attention to establishing a better balance between programs and to perfecting every hour of production to an extent which will interest, and bearing a definite relationship to the best programs preceding and following.

We also intend to inaugurate a definitely planned series of educational programs designed along the most scientific lines adaptable to radio, a series of international broadcast exchanges, and to increase our presentations of special news features. We intend to present many of the best news, but only after thorough tests to perfect them to the highest degree for broadcasting purposes.

With kind regards, I am,

Very sincerely yours,

Columbia Broadcasting System, Inc.

Wm. S. Paley  
President

## Orchestral Features Sponsored by Radio Manufacturers

AND the set builders are doing their share. Among the most outstanding of feature programs, scheduled for multiple appearance this winter, is that of the renowned Philadelphia Orchestra—under the direction of Leopold Stokowski. Philco is the sponsor of this splendid entertainment over 52 stations, NBC.

The celebrated Rochester Civic Orchestra will be presented by Stromberg-Carlson, through WHAM and 34 associated stations—coast-to-coast. Look for this

event every Wednesday evening.

Then there's Walter Damrosch, beginning Oct. 11, over WJZ and WEAJ Pacific-to-Atlantic networks. The first of the 1929-30 programs, Friday at 11 a.m., will be for school children. Radio-Victor has made possible a continuance of Mr. Damrosch's popular activities.

Earl, Temple, Atwater Kent, Crosley, Radio Corp., Sonora, Steinite, Kolster and a host of other radio concerns also are buying air space and planning unusual entertainment for your customers and prospects.



Rochester's popular civic orchestra will contribute much to broadcasting standards this winter.



Leopold Stokowski comes to America.

# Programs

Soon to be

# Broadcast—

*declare heads of two great Chains, in special messages to the readers of of "Radio Retailing"—and these "high light" events prove it.*



*In Quest  
of the  
Unusual*

"STUNTS" fully as sensational as the "Buddy" Bushmeyer parachute broadcast will be staged at frequent intervals these coming months, in an endeavor to bring the unusual into American homes—by radio.

### *Abreast of the News!*

AND now radio catches the news *when* it happens. Witness the thrilling "motor" message brought over the ocean to America during the epical flight of Henry

## ALL the Big Games This Fall

*Here's the Schedule:*

Oct. 12—Navy vs. Notre Dame at Baltimore. WJZ chain. Yale vs. Georgia at Athens, Ga. WEAJ chain. World Series. Columbia and NBC chains.

Oct. 19—Harvard vs. Army at Boston. WJZ chain. Columbia and WEAJ to be announced.

Oct. 26—Harvard vs. Dartmouth at Boston. WJZ chain. Army vs. Yale at New Haven. WEAJ chain. Illinois-Michigan at Urbana. Columbia chain.

Nov. 2—Princeton vs. Chicago at Princeton. Columbia and NBC. Also Navy-Penn at Phila. via WEAJ.

Nov. 9—Army vs. U. of Illinois at Champaign, WEAJ. Northwestern vs. Ohio State at Columbus, via Columbia, and Harvard vs. Michigan by WJZ chain.

Nov. 10—Yale vs. Princeton at Yale Bowl. WEAJ chain. Columbia and WJZ to be announced later.

Nov. 23—Yale vs. Harvard at Cambridge. Columbia and WEAJ network. Also Ohio State vs. U. of Illinois over WJZ chain.

Nov. 28—U. of Penn. vs. Cornell at Phila. NBC chain.

Nov. 30—Army vs. Notre Dame by both Columbia and NBC. Navy vs. Dartmouth at Franklin Field, WJZ.

Dec. 28—Army vs. Stanford at Palo Alto, Cal. NBC-WEAJ and Columbia networks.

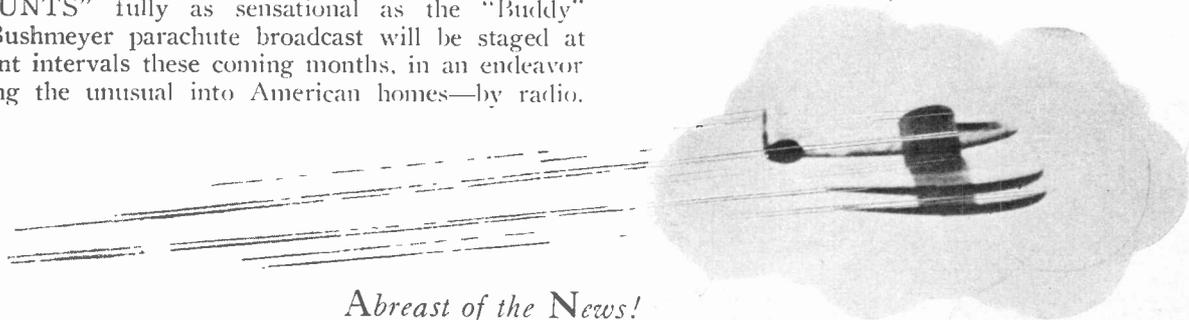
*Notes About the Games—Improvements in broadcasting equipment will make the story of these games more colorful and exciting than ever before. . . . A wide choice of games available. . . . "Ted" Husing, football veteran and ace of sports announcers, will cover most of Columbia's dates. . . . There is an acute possibility that a big game will be played in the East this year which will rival the West Coast Pasadena Carnival of Roses game on New Year's Day.*

### *Light's Golden Jubilee Oct. 21*

GREAT plans are being laid for broadcasting the culminating features of the fifty-year celebration of Edison's invention of the incandescent electric lamp with spectacular illumination effects scheduled for the evening of October 21, in all principal cities of the continent.

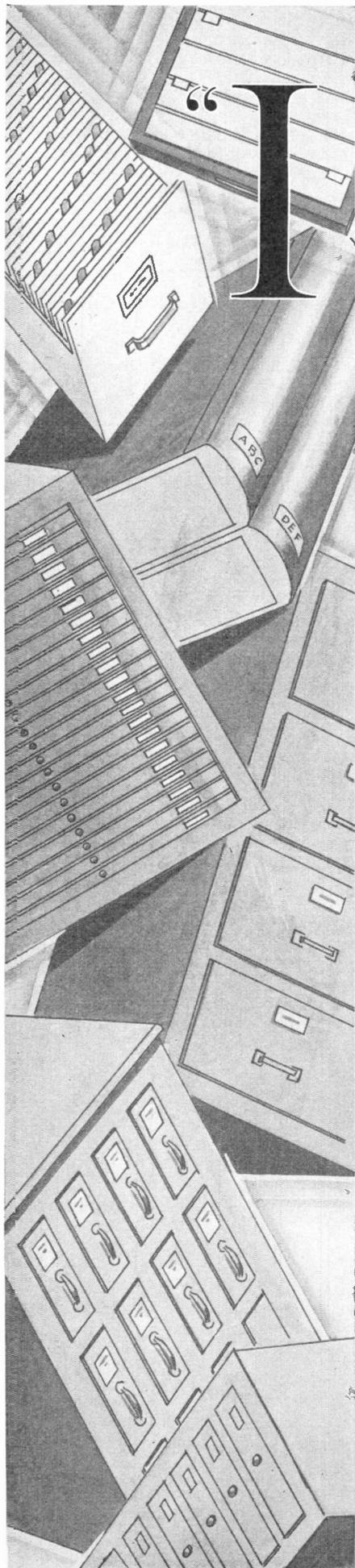
Henry Ford's banquet to electrical pioneers and leaders will be held at his Dearborn (Mich.) plant, where the old Menlo Park buildings have been re-created.

A radio description of this event will be broadcast to the enormous invisible audience.



R. D. Waghorn, R.A.F., and his Supermarine seaplane, Schneider cup races, England.

More of this kind of broadcasting to come.



# *Believe In*

*Recognizing Mistakes in  
Time to Stop Them Is This  
San Diego Store's Forte.*

**W**HENEVER a business fails, those responsible for its policies always look back and murmur, "If only we had seen in time." There is no manager who does not make mistakes. Perhaps he orders merchandise a little unwisely, or hires a salesman who does not make good. Maybe he falls into the policy of giving his customer more in service or merchandise than the price paid will warrant. None of these mistakes is particularly vital—if it is caught in time. It is only when the mistake runs on for a long time unnoticed that it becomes a drain on the business. For this reason contemporary records are very important.

With us, the life of each radio set is recorded, step by step, by means of a card system. From the time the set is ordered, down to the customer's final payment, and even thereafter during years of service, we maintain a record which shows its entire history at a glance. When a set is received from the factory, a stock card is made out and filed in the manager's office. This becomes the slate upon which the subsequent record of events is made. Incidentally, this file provides at all times a picture of just what stock is on hand, when it was ordered and delivered, and in what condition it is.

The sales manager should always know how many sets are out on home demonstrations, where they are and under what circumstances the demonstration was granted. The form which I have worked out to cover this requires the manager's O. K. before the set can be delivered, at which time an opportunity is given to check the credit of the customer and his previous history with the store or with other merchants.

**T**HIS form is made out with three carbons, one to be attached to the set, one to go to the truckman, who must check up in calling for the material at the shipping office, one for the personal file of the salesman. The original is kept by the manager. Upon delivery, the customer signs the form attached to the set. This form is returned to the manager and then placed in the salesman's pigeonhole. With this system there is a daily record of just what sets are out and what prospects each salesman is following up.

When a set is sold this is noted on the record card, which is then transferred to the permanent records for use later when service calls are to be made.

Daily, weekly and monthly records are kept of salesmen's activities. These appear on forms which have columns for information such as "number of calls made," "old prospects called upon," "new prospects called upon," "owners called upon." The weekly record shows the number of demonstrations made and the number of sets sold, with a column for the percentage of sales to calls. If this figure is low for any one man, it is easy to run the eye along the columns showing just what old prospects, new prospects or owners were called upon. Usually it is at once apparent where the trouble lies.

If a man is not active enough or if he is not producing the

DATE      ””

Salesman	Quota	Volume	No. Sales	Demos.	Calls	Interview	New Pros.	Old Pros.	Owners
----------	-------	--------	-----------	--------	-------	-----------	-----------	-----------	--------

# RECORDS

By  
**Floyd A. Bittaker**  
Manager, Radio Department  
Southern California Music Company

The form above is kept to check the record of each salesman. At the right is the form used to show the number of sets out on home demonstrations. This slip is made with three carbons. The permanent record card of each set is shown below. Beneath this, the free service coupon.

Liberal B. UHL, President  
**Southern California  
MUSIC COMPANY**  
720 - 722 Broadway

### INSTRUMENT COPY

No. 909      San Diego, Calif.      192

NAME \_\_\_\_\_  
Address \_\_\_\_\_

DELIVER \_\_\_\_\_ BRING IN \_\_\_\_\_

MON	TUE	WED	THUR	FRI	SAT	SUN
ARTICLE						
						NUMBER
						STYLE

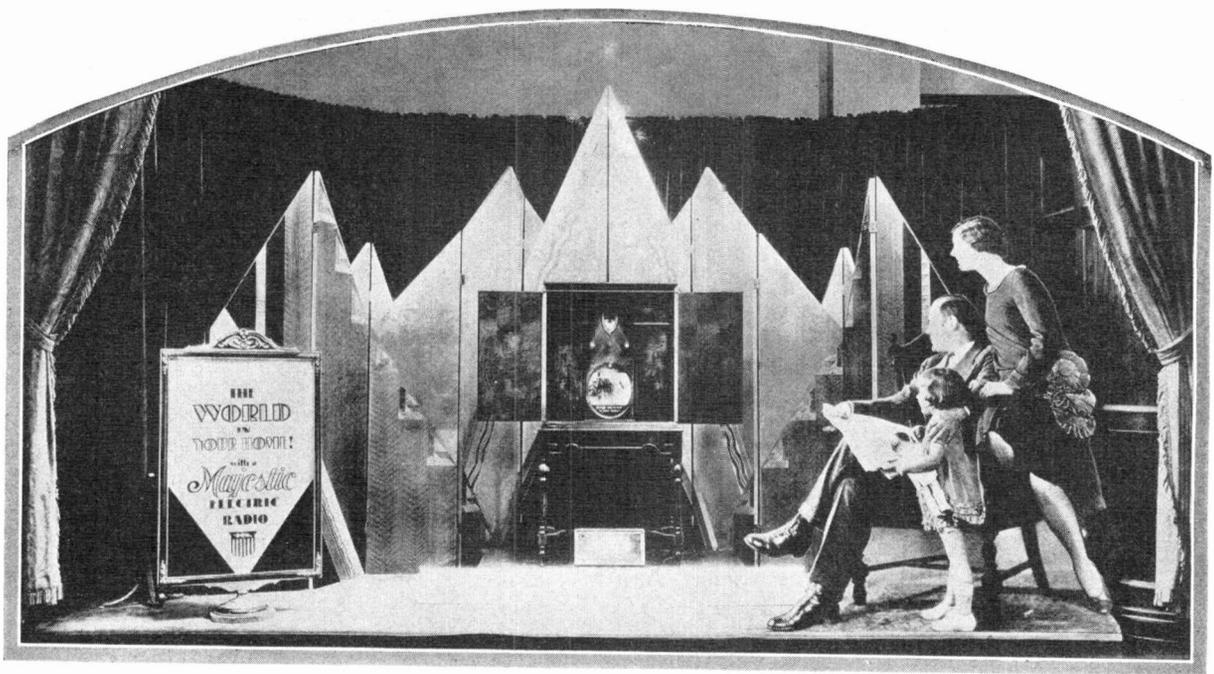
Checked Out By \_\_\_\_\_  
Delivered By \_\_\_\_\_  
Received By \_\_\_\_\_

proper results from his activities, that fact will stand out clearly in comparison with the record of other salesmen. There is nothing like this record to weed out the weak men and to give credit where it is due. These weekly reports are supplemented by the salesmen's monthly records.

Our service used to be given on a 30-day basis, an unlimited number of free calls being allowed in that time. This was not entirely satisfactory, so we changed to a coupon service system. So far it has worked out fine. With each sale we give the customer a written guarantee which specifically states just what the company is prepared to do. In this way we are protected against those who claim they were promised exceptional performance as to distance reception or from excessive demands for service due to tubes or accessories. The main feature of the guarantee, however, is that each free service call shall be paid by coupon. Three coupons are given the customer and these coupons are good at any time within 90 days after the sale. This seems more generous to the customer because 90 instead of 30 days are allowed for free service, but, on the other hand, the limiting of free service calls to three has greatly reduced our own expense. Under the former system there were instances where we were asked to make 15 calls within the first month. Now the customer thinks twice before using

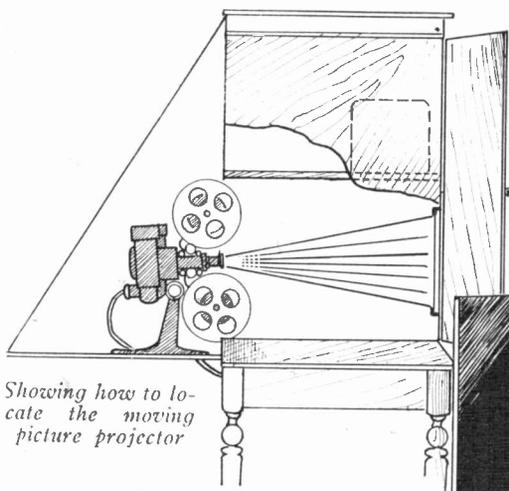
<p>No. 683</p> <p>Name _____ Address _____ Instrument _____ Purchased _____</p> <p>Call No. 1 Serviced _____ Call No. 2 Serviced _____ Call No. 3 Serviced _____</p> <p>Signed _____</p>	<p><b>683</b></p> <p><b>Southern California Music Co.</b></p> <p>Phone, Main 8111      720 Broadway SERVICE, GUARANTEE AND ACCEPTANCE CARD</p> <p>Instrument _____ Purchased _____</p> <p><b>WE GUARANTEE</b> the above named instrument to be free from electrical and mechanical defects. Defects of this nature developing within 90 days from date of purchase will be repaired or replaced <b>FREE OF CHARGE</b> if returned to our service department. We assume no liability for sets that have been damaged with or abused by the purchaser or his agent.</p> <p><b>WE DO NOT GUARANTEE</b> the life of the VACUUM TUBES, BATTERIES, or other accessories owing to the fact that the life of the highest grade product is uncertain and that we have no means of determining the amount or kind of usage this by us are of standard make and tested quality.</p> <p>As the securing of distant stations depends upon elements and conditions completely beyond our control, such as: atmospheric conditions, location of the radio, surrounding conditions and patience and skill of the operator, on which so much depends—<b>WE DO NOT GUARANTEE THE RECEPTION OF DISTANT STATIONS ON ANY RADIO EQUIPMENT</b> sold by us, regardless of make or price.</p> <p><b>THREE SERVICE CALLS FREE</b></p> <p>In order that you may become well versed in the use and care of a radio, we offer <b>THREE SERVICE CALLS FREE OF CHARGE</b> if requested within 90 days of date of purchase. Coupons covering these service calls are attached. All further calls upon our service for work on batteries or other accessories in the home of the customer are subject to a charge at our regular rates.</p> <p><b>SOUTHERN CALIFORNIA MUSIC CO.</b></p> <p>Signed _____</p>	<p>No. 683</p> <p>Not Transferable This coupon will be accepted as payment for one service call in lieu of our regular charge, within 90 days of the purchase date if attached to this guarantee.</p> <p>Service Performed _____ Date _____ Serviceman _____</p> <p><b>683</b></p> <p>Not Transferable This coupon will be accepted as payment for one service call in lieu of our regular charge, within 90 days of the purchase date if attached to this guarantee.</p> <p>Service Performed _____ Date _____ Serviceman _____</p> <p><b>683</b></p> <p>Not Transferable This coupon will be accepted as payment for one service call in lieu of our regular charge, within 90 days of the purchase date if attached to this guarantee.</p> <p>Service Performed _____ Date _____ Serviceman _____</p>
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up a coupon and unnecessary calls are eliminated. In spite of the continuing increase in the number of sets serviced, we have been able to reduce our service staff by one man. Calls are 25 per cent less per customer. The use of this form also permits us to keep an exact record of all service calls made on each set. One portion of the card is filled out and kept in the office files. To this the coupons are clipped as they are returned by the service department, thus making the record complete. This service file is of great value in saving the time of the service department. It makes possible the (Please turn to page 95)



*Easily Constructed*

# ACTION WINDOW



*Showing how to locate the moving picture projector*

**T**O GET and to hold the attention of passers-by is the primary function of the store window. One way to accomplish this, so that the message of the displayed merchandise may be impressed on the prospect's mind, is to get *action* in the window.

There are many ways of doing this, but one of the best that has come to our attention in some time is that used by the Cable Piano Company of Chicago—which, by the way, won first prize in a recent Majestic window display contest—the idea being conceived and executed by A. Morrow, assistant advertising manager for the Cable Company.

The title of the window—illustrated on this page—was "The World in Your Home." The radio set was

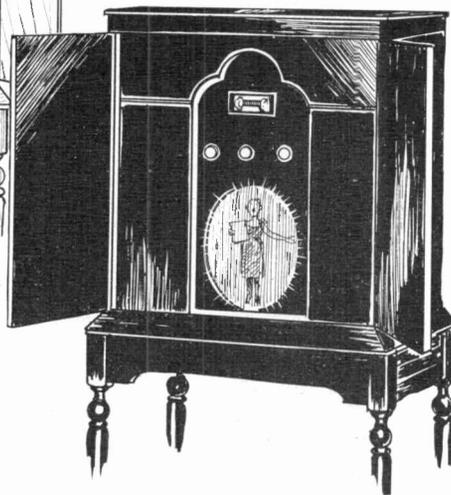
placed in the center of the window with a suitable background. In this case, futuristic paneling. In the front right-hand corner was placed a large cut-out, that of a family of three listening to and looking at the radio set. In the opposite corner was a sign printed with the sales message.

Now for the action part. To get this, the speaker was removed from the receiver and in the speaker opening was placed a piece of ground glass. A motion picture projector was then placed on the rear of the set by means of a small temporary shelf which enabled the proper focus to be obtained. The projector used was of the standard continuous type.

The film, which took six minutes to run, contained a moving picture of a football game, an exciting horse race, one of the world's famous orchestras in action, some of the late Presidential inauguration views, a boat race and other interesting popular events. It should be remembered that the films used should be only of timely seasonable topics. They may be obtained from the maker of the projector.

Not only did this window attract people to the extent of their reading the prepared message but it brought vividly to their minds the latent possibilities of a radio receiver, and what it would mean to them.

The window is simplicity itself. Note the number of objects—a radio set, a cut-out, a sales message and a simple background. A window of this type is one of the best, provided there is some strong attention-getter in the center—in this case the suggested animation of sound provides the necessary element.



# Will the Answer Be Price Cutting?

## Editor's Note:

This letter comes from one of the best known men in the industry. He also is president of a radio concern manufacturing sets which are priced among the top levels—and whose 1929-30 output schedule is a conservative one. Discussing the subject of over-production, he says:

"I RECENTLY attended a meeting in one of the larger middle west cities as an invited guest of its radio jobbers association. There were some statements made there that caused me to think.

"Last year, in that trading area, there were sixteen radio wholesalers. This year there are twenty-seven. The increase comes from either new jobbers establishing houses in that city, or some outside jobber opening a branch, generally due to a specific request from the manufacturer he represents.

"During 1928, the 16 jobbers covering that territory sold 30,000 radio receivers. When this year's 27 jobbers were asked to give their 1929 quotas, the first gentleman who got to his feet said: 'The contract that I signed calls for 30,000 receivers.' The next jobber said: 'We have contracted with our manufacturer for 22,500 receivers.'

"In all, these 27 jobbers had committed themselves for approximately 90,000 receivers—which is exactly three times the quantity they sold last year.

"Where are they going to put all these sets?

"When a manufacturer establishes a list price on a radio product, it is based on his ability to produce his original factory schedule quota in order to make a profit. When the industry sees that radio merchandise is not moving, prices are generally cut, and the merchandise speeded by 'distress' methods. This hurts every manufacturer, jobber and dealer.

"Maybe I'm wrong, but I am apprehensive of price-cutting, distress selling and over-production, in the low-priced field this coming season. Am I unduly exercised?"

Comment from our readers on this pertinent subject is particularly requested.

## The Public Is Also to Blame

Recently, the Columbus Better Business Bureau had a number of complaints from individuals who had radios delivered to their homes on approval only to find later that the dealers who sent the radios to them looked upon the transaction as a final sale.

We warned the public, in a radio talk, to be careful to have a distinct and clear understanding when they had radios delivered to their homes on approval and make sure that they did not sign any firm contract to purchase until they had agreed with the dealer to sign such a contract. The bureau knows of its own experience that the large majority of radio dealers in Columbus would not stoop to such a practice in order to sell radios and that if members of the public took radios into their homes on approval from the large majority of radio dealers it would be a perfectly safe procedure and if they did

not decide to buy the radio after the approval period, the dealer would gladly take it off their hands.

The radio talk indicated certain cases where, in our opinion, the public had been misused, and this caused a certain amount of discussion which has brought to our attention the fact that in a great many cases, certain individuals misuse radio dealers in pretending to purchase radios.

In many cases, radio stores and radio departments in department stores are located in the congested downtown district where the best radio reception cannot be obtained. Some radio merchants believe that in order to demonstrate a radio to its best advantage it must be set up in the home; other merchants quite rightfully believe that the public may go into their store, ask to have a radio demonstrated, hear it operated, judge of its tone, etc., and decide then and there whether or not they wish to buy it, just as they would a phonograph or a piano. These merchants feel that the notion which the average man has when he thinks of buying a radio that he must have it in his own home to make sure it will work is all a mistake and that the average purchaser of a radio can adequately examine and demonstrate a radio in the store and make his decision about purchasing it.

One radio dealer told us today that he knew of many cases where people came to their store, asked them to demonstrate a radio in their home, and that later on their man who set the radio up in the home had noticed that this same home had two or three other radios set up from other stores which they were examining at the same time.

Still another merchant has told us that they have sent radios to certain homes on

approval and the people kept them as long as they could and then trumped up some excuse or other for not buying. Unscrupulous members of the public who will stoop to such practices to deceive radio merchants and who prey upon the merchants' desire to treat the public fairly and give them every service, will in the end bring about a hardship on all purchasers of radios.

HARRY VAN HORN, *Manager*  
Columbus Better Business Bureau,  
Columbus, Ohio.

## Good Service Schools Needed

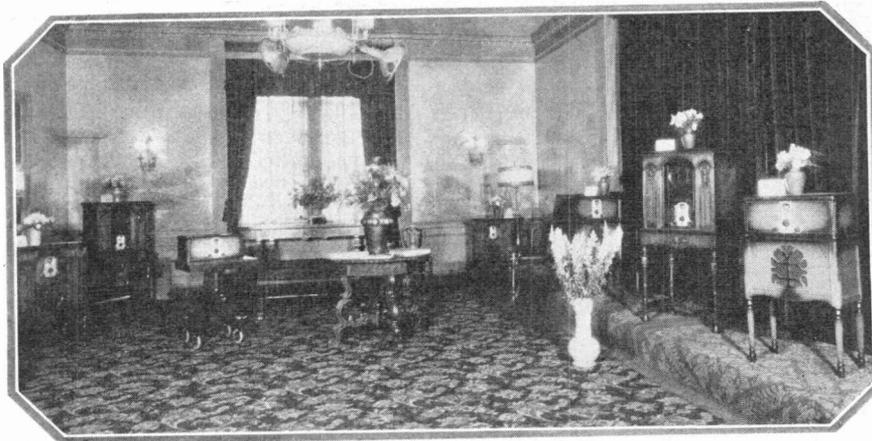
### Editor, Radio Retailing:

As the leading magazine in your field—to which I am a subscriber, I am writing you for assistance in finding a school—if any exists, that will give me a thorough training in servicing all makes of receivers, as well as give me a knowledge of public address systems, etc.

I have visited schools in Milwaukee, Chicago and Cleveland and they all profess to be able to teach me what I want to know—but \$200 will pay for the sets and equipment in all of them put together. Only one of them had an a.c. set in the place, the other two did not have any standard make set—if they did it was not in sight.

Please do not misunderstand me—I am not "crabbing"—only when I am asked to pay from \$150 to \$200 for a course of study, I would like to feel as though I would get my moneys-worth. It does not seem possible for them to thoroughly teach the subject of eliminators, power packs, etc., unless there were some in the place. 1920 E. 59th St.,  
Cleveland, Ohio. JAMES S. SCARST,

## Fine Furnishings Do Make a Difference



Soft floor coverings, draperies, flowers—these things do make a difference in the appearance and effectiveness of the display room.

Today's fine cabinets justify a rich setting such as the above. The type of prospect whose interest you are soliciting, as well as a due consideration of the acoustical effects, further warrant the use of homelike surroundings.

Note, also, the large rubber-treaded wheels on the legs of the smaller table, so that the set may easily be placed in front of the seated customer. Spot lights, on the central fixture, complete the selling power of this unusual show room.

## This Month's PRIZE WINNER

**FREE \$10.00**

To the owner of any radio set I cannot repair. Of course, you will be given an estimate of the cost before I begin and fair, frank advice as to the advisability of having it done.

**RADIO APPLIANCE  
BUILT TO ORDER  
EXPERT SERVICE  
ON ALL MAKES**

**J. P. KENNEDY  
The RADIO Man**

618 W. LaSalle. Ph. 3-9447

This little ad. netted 31 service calls in 48 hours from one insertion in a newspaper having 28,000 readers. It paved the way for five receiver orders and the sale of numerous accessories.

Our "ideas" committee awarded this month's five dollar bill to J. P. Kennedy, of South Bend, Ind., because his one column, two-inch message was

packed full of attention, value and pulling power.

"\$10 for any set I cannot repair," is a challenge that is bound to get action—and bring to the store set owners who should have a new outfit. It tells the story of Kennedy's superior servicing facilities in deeds, not words.

Incidentally, no one collected the ten spot.

### Complete Sales Record on One Sheet

EACH radio transaction, from the time of the first demonstration to the final action, is entered on a large master sheet by the head of the radio department of Jim Kelly, Inc., Dayton, Ohio. Thus can quickly be reviewed the entire transactions of a month if desired. The identifications of the various vertical columns are as follows: Date Out; Make; Model; Price; Salesman; Name of Prospect; Address; Calls (five columns); Date Sold; Date Ret'd; Allowance; Remarks.

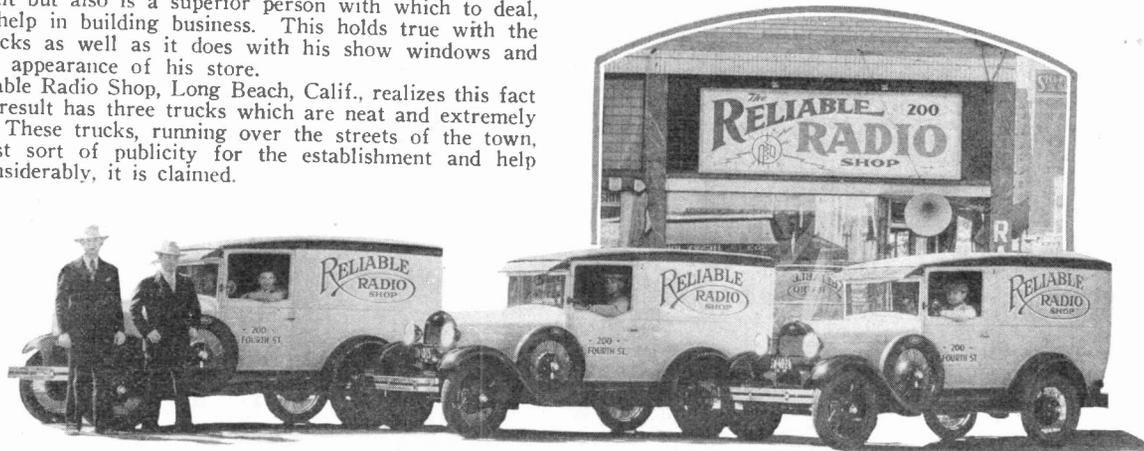
### Noon-Hour Demonstration for Busy Farmers

FARMERS in harvest time were "too busy" to listen to salesmen of the A. A. Schneiderhahn Company, Atwater Kent distributor in Des Moines. A battery set demonstrated from a car during noon hours, however, resulted in many sales.

### Attractive Trucks Aid Radio Dealer

ANYTHING that helps make the public feel that the radio dealer not only has a superior establishment but also is a superior person with which to deal, is of real help in building business. This holds true with the dealer's trucks as well as it does with his show windows and the interior appearance of his store.

The Reliable Radio Shop, Long Beach, Calif., realizes this fact and as the result has three trucks which are neat and extremely attractive. These trucks, running over the streets of the town, are the best sort of publicity for the establishment and help business considerably, it is claimed.



# Ideas to

## Trades New Set for Prospect List

A SUCCESSFUL campaign to contact live prospects was recently concluded by Wolf and Dessauer, Fort Wayne, Ind. This plan was developed around a unique trade-in offer. The company distributed blanks and cards through direct mail, newspapers, and from the store, announcing its willingness to exchange the most up-to-date radio set in stock for the oldest factory-made tube set in Indiana, on an absolutely even basis.

Needless to say, the announcement brought in hundreds of entries bearing complete information about sets so old as to be practically obsolete. When the patriarch of them all was discovered and placed in the display window beside the handsome screen-grid set the concern exchanged for it, the contrast brought a constantly changing crowd to comment on, and wonder at, the development which had taken place within a few years. Unconsciously the onlookers compared their own sets with the 1929 model and many were led to make inquiries that resulted in sales.

The real value of the contest, however, lay in the extensive prospect list that resulted from it. A complete record was made of the hundreds of people who, by their own admission, owned sets so antiquated as to be curiosities. Direct mail broadsides were released to all of these and calls by salesmen followed up prospects who lived close enough to Fort Wayne to make it practicable. The names of those families who felt that there was still another year or two left in their 1920 seven-dial static reproducers were placed in a file for future contacting.

The prize-winning set is now permanently on display in the store. Year by year it will present a stronger contrast between the best efforts of the infant industry and the striking productions that will represent the future achievement of modern factories.

### A Beneficent Ambulance Chaser

DUE to misdirected activity on the part of a taxicab, Abe Lefkowitz, of Niagara Falls, found himself hospital-bound with a fractured occipital, bent femur, or something like that. When his friend, Patrick J. Murphy, proprietor of the Patrick J. Murphy Battery Corporation, heard the news, he raced to the institution with a new model receiver under his arm which he installed in the sufferer's room to help relieve his discomfort. The set made such a hit that the victim, on recovering, paid cash to take it home with him.

A month later Pat's heart was touched by the report of a serious operation on another friend. Again a set was loaned to dispel the hospital tedium, and again, by some coincidence, a sale marked the convalescent's return home.

The idea, thought Pat, had possibilities. Since then he has been in as close touch with hospital registry lists as an enterprising mortician. He has staged a large number of these protracted demonstrations, and his records show that the percentage of sets returned has been amazingly small.

# Speed FALL Selling

## "The Witchery of Radio"

A Halloween Window Trim That Radiates Attention Value.

HERE'S a suggestion for that Halloween window that's sure to "go over." This trim can be constructed by the most inexperienced person—and the materials required cost less than four dollars.

Note its "attention value!" The eyes in the pumpkins and cats flash, the witch flies up and down on her broomstick—aided by invisible wires and a small motor—pointing, the while, with her eerie white hand to the spotlighted radio set. The latter is placed on a black velvet pedestal and is further set off by autumnal foliage.

We suggest that the Electrical Equipment Company, Phoenix, Ariz., to whom we are indebted for this most excellent idea, might well have added a show card to read something like this:



### The Witchery of Radio

*Let radio, the modern handmaiden of the spirits of the air, enter your home this Halloween through the medium of one of our latest receivers.*

CONSTRUCTION—Background and witch's costume of black crepe paper. Harvest moon of orange paper—evenly illuminated from the rear. It would be worth while to purchase four glass cats' eyes for use in the silhouetted animals on the back fence. Ten-watt bulbs behind these two heads and 25-watt lamps in the pumpkins, all on flasher buttons, and a spotlight on the witch and receiver, constitute the lighting effects.

The witch is suspended on invisible wires, whose upper ends are slightly agitated by an eight hp. motor—thus getting motion into the trim. Use old boards for the fence.

## World News Makes Excellent Advertising Copy

WHEN Brisbane in his column "Today" said, "A house without a radio set might as well be a house without a window," in addition to giving the radio business about a million dollars worth of publicity, he gave the Bowers Brothers Electrical Company, of Lafayette, Ind., an idea on which it has consistently been capitalizing ever since.

The company is a firm believer in the value of newspaper advertising. The day after this epochal utterance, its ad bore a facsimile of the Brisbane column with the sensational pronouncement in its original context. The comment and attention aroused by the device were so favorable that the Bowers Company was moved to adopt the principle that its daily releases might well feature some nationally significant occurrence in the field of radio, as well as the merits of its store, service, and merchandise. For example, the part radio played in the Graf Zeppelin's flight, the value of successful wireless communication with Commander Byrd's expedition, the increasing importance of transatlantic radio-telephony as exemplified by the recent lowering of rates nearly fifty per cent, are all splendid feature possibilities for a dealer's daily or weekly advertising.

Similarly, the trans-Atlantic broadcast of the Schneider Cup Races, at Cowes; the Radio World's Fair, at Madison Square Garden; and the recent startling flight of Lieut. Doolittle in which he was guided by radio entirely.

Radio Retailing, October, 1929

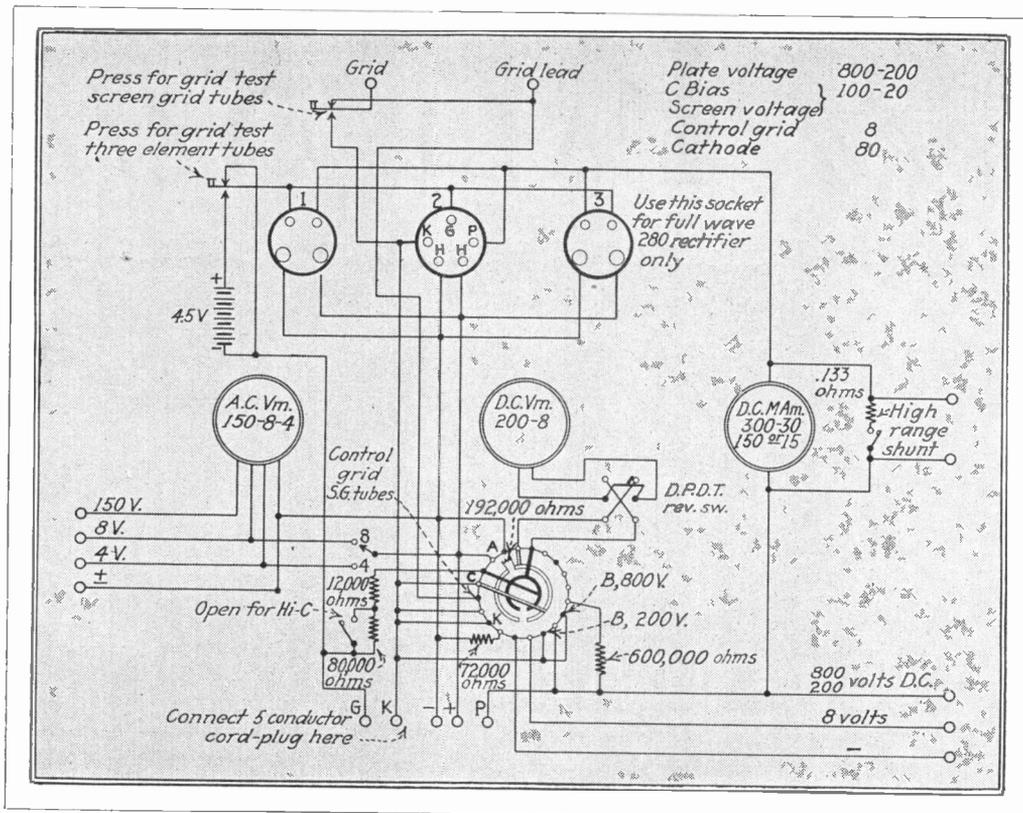
## 66 2/3% Sold on First Demonstration

A CANADIAN dealer in an outlying western town advertised for names of all farmers and townsmen who had never heard a radio set. To those replying, the firm promised an evening's concert free of charge. Three letters were received and a demonstration was arranged for each prospect. Two out of the three were so favorably impressed that they bought sets.

## Extracting Sales from the Trash Can

IT has been the unusual experience of the Dixie Radio Company, Columbia, S. C., that sales literally can be dug out of the trash can. This concern had its service department redesign two trash cans, as shown in the accompanying diagram. At the top is a bag to receive refuse. At the bottom is a dynamic speaker and baffle board operated by a cable from the store of the company. The four sides of the can are given over to advertisements, two for the Dixie Radio Company and two for other concerns not in the radio field who pay the Dixie Company for the space they use. The two cans are stationed on the two street corners nearest to the store. The results from this publicity stunt have been most gratifying. Many people come into the store through curiosity and remain or return as purchasers of a good set.





# Service Man's A.C.-D.C. Set Tester

FOR the benefit of those who built the radio set tester as shown in the June, 1928, issue of this publication, we now present several modifications which will make that instrument capable of testing sets containing screen-grid tubes. For those who did not make this tester, a complete wiring diagram and description is given in the following article. As much as possible of the equipment specified in the former article is used again, in order not to incur unnecessary expense to those who have the old type tester.

The year just past has not only brought about the popularity of the 227 or heater type tube, but it has also introduced the 224 screen-grid tube. Both of these tubes have added to the requirements of service test sets. The changes and additions recommended in this article will be found adequate to meet these demands.

Two new needs that have to be met, are, positive and negative cathode bias. Cathode bias is the voltage applied between cathode and heater of a 227 or 224 type tube. This is generally obtained by a resistor placed in series with the cathode and connected to the heater center tap. Thus the plate current passing from plate to cathode in the tube and through this resistor to the origin of the B-supply, puts the cathode at a positive potential—relative to the filament. A negative cathode is tapped off the voltage divider between the —B and —C, the —B going to the center tap of the heater, and the —C going to the grid. Also, with the use of the screen-grid tube, comes the requirement for

a positive grid bias for the screen, known as the D-voltage. The control grid (tip of tube) bias is still negative but of a much lower magnitude, as is also the plate current.

The diagram of the tester being described shows three meters. On the left is the a.c. voltmeter with three ranges which are 150-8-4. The 150-volt scale is for reading the a.c. line voltage, and the 8 and 4 for reading the a.c. heater or filament voltages.

Below is a list of the resistors, resistances of the millimeters and shunts used in the tester.

Resistance in Ohms	Use
600,000	High plate voltage
192,000	On bi-polar switch for 200 v.
12,000	20 volt C bias range
80,000	100 volt C bias range
72,000	80 volt cathode

Resistance of M.A. and Shunts			
Meter	Shunt	Meter	Shunt
30	1.2 ohms	300	.133 ohms
20	1.5 ohms	200	.166 ohms
15	3.2 ohms	150	1.66 ohms

The latter two ranges are available at both the binding post and the plug. The center meter is a d.c. voltmeter having a double scale of 200-8 and having the following

ranges through the bi-polar switch,—800-200-100-80-20-8 volts at 1,000 ohms per volt.

The positions of the bi-polar switch are as follows: "A" which reads the d.c. filament voltage, and can be read positive or negative on the 8-volt scale with the aid of the reversing switch.

The second position has two ranges,—100-20 positive or negative. This takes care of the grid bias for three element tubes as well as the screen voltage for screen-grid tubes.

The third position gives the control grid voltage for screen-grid tubes. The range is 8 volts and is read on that scale.

The fourth gives the cathode voltage, measured either positive or negative and read as 80 volts on the 8-volt scale. Five is the 8-volt binding post range for testing C-batteries and the drop across C bias resistors.

Six and seven are the plate voltage and high range binding post positions. That ranges are 800 and 200 volts.

The meter to the right is a millimeter from which the plate current and grid test readings are taken. The ranges specified in the previous tester was 300-30, but now it is recommended to use either a 200-20 or a 150-15 meter, the latter being preferred.

At the top of the diagram three sockets are shown. The one at the left is for any UX base tube and the center for any UY base tube. Either a.c. or d.c. screen-grid tubes can be tested in these sockets. Two cables must be provided with universal

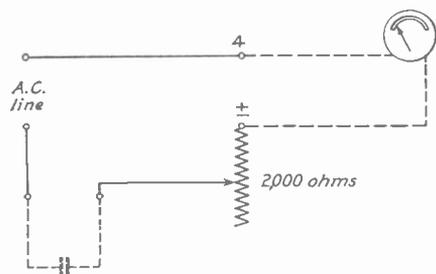
clips and connected to the two binding posts at the top of the panel. The post marked "grid" is connected to the tip of the tube, the control grid. The other one marked "grid lead" is connected to the grid clip in the radio set, from which the tube was removed.

When testing half wave or 281 rectifier tubes use the left-hand socket and high range of milliammeter. For full wave or 280 tubes place the tube in the left socket for one plate reading and in the right-hand socket for the other plate reading. These two readings should be alike.

There are two things found in some of the present day sets which are liable to lead the service man astray. First, quite a number of sets employ a resistor in series with the grid of the radio frequency tubes. This resistor in many cases is of such a value (.5 megohms or thereabouts) that the true bias voltage cannot be measured at the socket no matter what voltmeter or set tester is used. If the voltmeter is left on this position when reading plate current, a false reading will be obtained. This is also true of any set tester, because the current taken by the voltmeter, although it is very small, passes through a high resistance in series with the grid of the tube. This causes a drop in voltage to the grid and thus an increase in plate current. This also holds true of resistance couple audio amplifiers. In the above mentioned cases the plate voltage and current have to be taken as a guide and disregard the value of bias read at the socket.

Second, quite often the service man will stumble across a filter condenser whose label has fallen off and whose capacity is unknown. Therefore the following data is given so that this test set may be used to properly identify such condensers.

To make a test of capacity, the 4-volt a.c. binding post is connected in series with a 2,000-ohm variable resistor capable of carrying 100 M.A. (Electrad Truvolt is ideal), then this and the common binding post are connected to the a.c. lighting line. The resistor is then adjusted until the pointer of the meter comes to the top mark or full scale deflection. The unknown condenser may then be connected in series with the meter and resistor and the readings taken from the 150-volt scale. (See diagram below for circuit.)



Circuit used for testing condenser capacity

The following readings will be found sufficiently accurate for all ordinary service,

Microfarads	Readings on 150-v. scale
.5	30
1.0	57
2.0	95
5.0	132
8.0	138
10.0	142

work. With the suggested layout it will be found that a panel of 7 in. x 12 in. can be used. This is the same size as specified last year. Also, if the completed outfit is to be mounted in a small carrying case, this case should be not less than 2 in. deep, inside.

## A Discussion of Chemical Condensers

By Harry W. Houck, Chief Engineer  
Dubilier Condenser Corporation

THE problems of high-voltage paper condensers and low-voltage chemical condensers are totally different. While much has been said and done with regard to the former, since they play such an important part in socket-power radio, little has been said, yet much has been done with regard to the latter. Otherwise, high-capacity condensers would still remain a dream.

The high-voltage condenser must be carefully insulated so as to prevent the breakdown of the dielectric. When the dielectric does break down, as the result of excessive voltage or old age, the condenser is useless. On the other hand, with the low-voltage condenser the dielectric is simply a microscopically thin film of gas formed as the result of chemical action when the current flows from one plate to the other. The dielectric is ample at low voltages. However, if excessive voltage is applied and the dielectric film breaks down, it is immediately reformed by chemical action, and the condenser is said to be self-healing.

The main problem with the chemical "A" condenser is that of leakage, for any leakage is a definite drain on the power supply and is therefore undesirable. While a poor "A" condenser may have a leakage current in excess of 25 milliamperes, at its rated voltage, this leakage indicates a chemical action in the condenser. As there is only a limited quantity of chemical in a condenser, when this becomes exhausted, the useful life of the unit is over, and it ceases to have any condenser action. We have sought a rapidly forming dielectric of sufficient electrical strength to prevent breakdown and leakage, with the result that we have reduced the working leakage to about one milliampere.

It is interesting to note that a chemical "A" condenser acts as a battery as well as a condenser. A considerable current flow from an "A" condenser that has been left standing, may be noted with the aid of a microammeter. This energy, it will be noted, is quite apart from that stored by the condenser action, which is rapidly dissipated once the condenser is disconnected from the charging source. The battery action indicates chemical action, which in turn means that something is being consumed or corroded in order to generate electricity. We have found this battery action to be a safe guide as to the merits of a chemical condenser, for the longer the battery action the longer the condenser will last. In our own condensers we have reduced the battery action to practically an absolute minimum.

Of course the chemical condenser is self-healing, which is one of its attractive features aside from enormous capacity at low cost and in compact form. If the condenser is self-healing, why does it not last forever? That is a question often asked, since in the usual paper condensers it is the breakdown of the dielectric that causes trouble. But unlike the paper condenser, the chemical condenser dies a slow death. It does not end its life with a loud blowout. Instead, its capacity dwindles slowly at first and then more rapidly, and finally the capacity is too small to do effective work. A properly designed and constructed chemical "A" condenser should serve at least 10,000 hours without having its capacity reduced appreciably.

The chemical condenser is best suited for low-voltage work, such as in A-eliminator or filament supply units in conjunction with rectifiers, or again for supplying low-voltage rectified current for the field coil of a dynamic speaker. Our chemical "A" condenser rated at 6 volts can be used up to a 14-volt peak. Condensers of this type can be made for working voltages up to 24. Essentially, however, the chemical condenser lends itself best to low-voltage operation.

In the chemical condensers we have achieved enormous capacity at low cost and in compact form, simply by putting a microscopically thin gaseous film to work. While the principle is simple enough, many technical problems have had to be solved.

## Television Transmission

According to a statement just issued by James W. Garside, president of the Jenkins Television Corporation, the transmitters of this organization located in Jersey City and also near Washington, D. C., are now operating on a regular schedule.

The Jersey City transmitter, W2XCR, operates daily except Saturdays and Sundays, from 3 to 5 p.m., and 8 to 10 p.m., Eastern Standard Time, on 2100-2200 kilocycle frequency. The Washington transmitter, W3XK, operates daily except Sundays from 8 to 9 p.m., Eastern Standard Time.

Both transmitters are equipped and licensed to operate with power up to 5 kilowatts. The maximum power, consistent with minimum interference with other radio services, is now being employed for both transmitters. The programs consist of voice announcements together with Jenkins radio-movies or black-and-white action pictures, although halftones can be and are frequently transmitted for tests.

These programs are available to anyone provided with the necessary short-wave receiver, amplifier and scanning mechanism.

## Eliminator Voltages Should Be Adjusted to Receiver

In using the average type of separate "B" eliminator with the various types of storage battery receivers the question of testing the voltages which are actually being supplied at the eliminator taps under operating conditions, is very important.

The voltages marked at the various terminals of these eliminators are merely nominal voltages which would obtain if the eliminator were operated with a set having the characteristics for which the eliminator was designed and if the voltage source from which the eliminator is operated is of the same value as that used in testing the eliminator.

The only safe procedure to follow in installing such an eliminator is to test the voltages with the receiver in operation. For this purpose a high resistance voltmeter should be used because the ordinary voltmeter used to test dry batteries is not suitable for the purpose.

In one case which illustrates the conditions which can prevail when proper tests are not used, it was found that when the high-low switch on such an eliminator was thrown to the "high" position, the voltage applied to the 171A tube that was used in the last stage ran as high as 250 volts. Continued operation at such voltages will, of course, result in damage to the tube. In addition, the excessive plate current taken may result in distortion and poor quality of reproduction.

# Radio Retailing

A McGraw-Hill Publication

OCTOBER

1929

# Peak Season

## General Fall Business Is Good

**S**URVEYS made by *The Business Week* (*Radio Retailing's* sister publication in the field of general business) indicate that business is currently on a plane about 2 per cent above that witnessed at the opening of August and about 3 per cent above that recorded this time last year. Business leaders from the East South Central States report current business slightly under that of a month ago, and also some 4 per cent under that witnessed at this time last year. All other sections, however, report the current volume of business better than at the opening of August, and also better than a year ago.

The outlook for the next 90 days is particularly bright. The expected average volume of business during the remainder of the year is given as 6 per cent above that at the opening of the Fall season and 5 per cent over that witnessed during the same period last year. In other words business men in general find evidence of a probable volume of business during the coming three months of excellent proportions.

The radio business may be classed as "fair with favoring winds." The demand for new electric receivers continues well above that ever before experienced at this time of year, and augurs well for activity this Fall and Winter. Stimulated by the quality of the new sets being placed on the market, by the new features included, and by attractively low prices, it is probable that sales in the radio industry during the radio year 1929-1930 will set a new high record for the industry. Practically all branches of the industry are apparently sharing these favorable prospects.

## Coming Into His Own

**W**HEN the practical development of battery circuits first made radio in the home a commercial success, the farmer, as a legitimate buyer, was on a par with the city chap. With the advent of the a.c. receiver, however, most dealers, and many broadcasters as well, forgot their "country cousin." We now note, with pleasure, that there are marked indications of the industry's reviving interest in the profit potentialities of this vast array of unelectrified homes—many of which contain obsolete radio equipment.

One of these signs is the recent introduction of a number of new, and efficient, battery-operated receivers. These 1930 models will give the rural resident all the advantages of tone and of operation now enjoyed by the urbanite.

Likewise the stations are waking up. Thirty-one antennas will broadcast the Farm and Home Hour, inaugurated by the U. S. Department of Agriculture.

This program event will occur five times a week. It will give the farmer a wealth of practical information about his business.

It would appear, therefore, that the radio industry has recognized its duty to the farmer—he is "coming into his own." And the dealer-member of this industry of ours will do his part by selling to his isolated prospects both of these developments—better sets and better programs.

## Simplicity of Operation Complicates Servicing

**T**HE simpler the operation of the radio set, the more intricate its mechanism and consequently its servicing. All the various tuned circuits of a single control set must be tuned with extreme accuracy. The automatic volume control has been incorporated as still another contribution toward simplicity of set operation. This device introduces still further complications in the radio set proper. Thus, customer convenience actually introduces many complications in set design, production and servicing.

The day is past when anyone can service the radio set. Today, the need is great for service men who really know the technicalities of radio, and these men must also be equipped with the necessary working tools. Although radio sets are better today than ever before, they occasionally need servicing, and the future of the radio industry rests to a large extent on its service men.

## You Can't Force Obsolescence Too Fast

**T**HE Commercial Standards Unit of the U. S. Bureau of Standards finds that some stimulation of obsolescence is not uneconomic. But it does not subscribe to the theory of "progressive obsolescence," meaning the quickening of sales by inducing people to buy a greater variety of goods *not* to wear out but to discard when new and more attractive models come out. The danger lies, according to the Bureau, in the infection of buyers who cannot afford to pursue such a policy. Meanwhile the craze for volume swells sales expenses, increases distribution costs and reduces profits even though the factory is operating at capacity.

Against this theory of sales promotion the Bureau contrasts the advantages of simplification of product to lines in most constant demand, contending that the reduction in manufacturing and selling costs, coupled with a consistent reduction in price to the consumer made possible by simplification, and the orderly revamping of product based upon an intelligent analysis of consumer

# Just Ahead — *Let's Step On The Gas*

wants, will obtain extra volume that is bound to be more permanent and profitable than that gained through forced obsolescence.

## *The "Gyp" and the Better Business Bureau*

THE Better Business Bureau, Inc., a national organization, has been particularly active the past two years exposing the unethical practices of a certain type of radio outlet, commonly referred to as the "gyp." We commend the frank and thorough manner in which this institution, which maintains offices in all the principal cities of the United States, exposes, through its widely distributed bulletins, "bait" advertising, switching, the substitution of seconds, the art of "Defaming," and other notorious practices detrimental to the good name of the radio industry.

Dealers who experience unfair or untruthful competition should get in touch with the nearest branch of the Better Business Bureau.

## *RCA and Television*

AN EXHIBIT which attracted more than the customary amount of attention at last month's Radio World's Fair in New York City, was the television demonstration conducted by the Radio Corporation of America.

While the results obtained by the apparatus used were distinctly superior to the performance of the little images of a year ago, the lecturers and attendants made it a special point always to explain that television, today, is *not* "just around the corner."

In some circles, there has been too much unfounded optimism, publicly expressed, with reference to television. This attitude, therefore, on the part of a recognized leader in the radio industry, was well taken.

## *Each Price Level Must Pay Its Way*

SAVINGS in cost of manufacture are inevitably passed on to the consumer, particularly in so competitive an industry as radio. When price pruning, to gain a slight advantage in a crowded market, is carried too far, however, the prosperity of the industry is affected and ultimately even its stability may be undermined. Excessively cut prices hamper engineering progress, weaken sales support to the retailer and reduce the dealer's profits.

To continue the broad trail of impressive growth and increasing stability which the radio industry has marked out for itself and upon which it has advanced so far, it

must continue progressive improvement of its product, at the same time, maintaining a margin of profit sufficient to permit of ample research facilities, of advertising imposing enough to compete with all other industries reaching for the consumer's dollar, of liberal appropriations to support good broadcasting programs, and of a margin and turnover which will assure prosperity to the manufacturer and retail dealer alike.

## *Radio Rooting Deeper*

CENTRALIZED radio or the practice of a common radio receiver supplying a number of scattered speakers in a building, is rapidly gaining in favor. A case in point is the announcement that the Piedmont Hotel in Atlanta, Ga., an old landmark of the South, is being remodeled to include a centralized radio installation.

This is but one of many cases that can be cited. The point we wish to emphasize is that the managements of large public establishments are realizing more and more, the value of radio in present-day life. This is a healthy sign. The success of any industry is assured when that industry gives and maintains a necessary service to the people.

## *Speaking of "Overproduction"—*



Every home requirement  
 is met by the new complete  
 line of **RCA**

# RADIOLAS

TEN MODELS • THREE CIRCUITS

AC

DC

or BATTERY

*with or without electrical phonograph*

RADIOLA DIVISION

RADIO-VICTOR CORPORATION OF AMERICA

New York • Chicago • Atlanta • Dallas • San Francisco

"Music from the air or record with the realism of the Radiola"

*This sign marks the leading*



*dealer in every community*

# RCA RADIOLA

MADE BY THE MAKERS OF THE RADIOTRON



**RCA Radiola 67**

The new Super-Heterodyne combination with RCA Electro-Dynamic loudspeaker giving electrical reproduction of records. The complete home instrument; brings to you at will "Music from the air or record."  
\$690 (less Radiotrons)



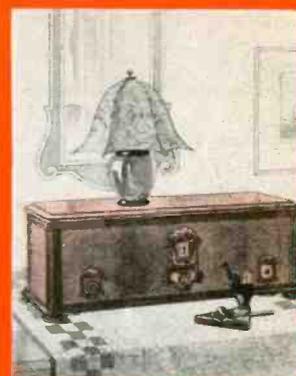
**RCA Radiola 64**

RCA Super-Heterodyne receiver de luxe. Super-sensitive and super-selective. Remarkable tone realism made possible by improved RCA Electro-Dynamic reproducer.  
\$550 (less Radiotrons)



**RCA Radiola 66**

A new improved RCA Super-Heterodyne with RCA Electro-Dynamic reproducer. Built with master craftsmanship throughout. The finest Super-Heterodyne ever offered at this price.  
\$225 (less Radiotrons)



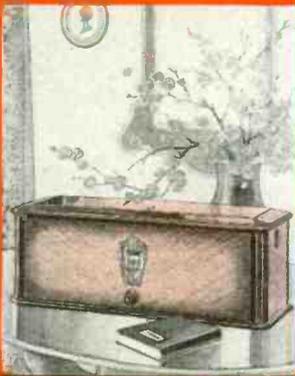
**RCA Radiola 60**

Beautifully designed table model of the Radiola Super-Heterodyne, the most selective circuit known in the radio art.  
\$130 (less Radiotrons)



**RCA Radiola 47**

The newest RCA "all electric" development in Screen-Grid radio combined with the phonograph. Radio and phonograph utilize the same impressive built-in Electro-Dynamic reproducer. "Music from the air or record."  
\$275 (less Radiotrons)



**RCA Radiola 44**

Utilizing the sensation new Screen-Grid Radiotrons. Circuit incorporates latest engineering refinements. High amplification, great selectivity and sensitivity.  
\$110 (less Radiotrons)



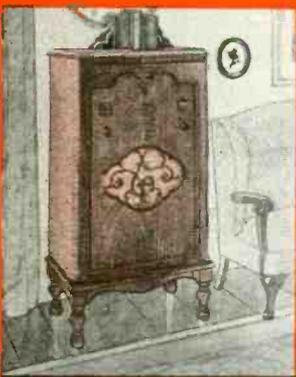
**RCA Radiola 46**

Cabinet Radiola with the new Screen-Grid Radiotrons. Built in RCA Electro-Dynamic Reproducer. A powerful, efficient receiver of most modern design. \$179 (less Radiotrons)



**RCA Radiola 43**

The nationally famous "all electric" console type Radiola. Realistic reproduction of music and the voice from nearby or distant stations. A quality instrument at a low price.  
\$65.4 (less Radiotrons)



**RCA Radiola 22**

RCA Screen-Grid Radiola for battery operation, with RCA loudspeaker enclosed. Reproduces voice or instrument with great fidelity.  
\$135 (less Radiotrons)



**RCA Loudspeaker 106**

Electro-Dynamic speaker of amazing range, capacity and tone fidelity. Operates from A.C. house current.  
\$49.50



**RCA Loudspeaker 103**

The leading magnetic-type radio reproducer. Designed to harmonize with home furnishings.  
\$22.50



**RCA Loudspeaker 100-B**

With the rich, mellow tone characteristic of the popular "100" type of reproducer. The design matches Radiola 33.  
\$17.50

# RCA RADIOLA

MADE BY THE MAKERS OF THE RADIOTRON



# New Products

Displayed at the

# Radio

Latest models of sets, reproducers, parts and accessories as seen at the recent New York exhibition.

## Three Grebe Sets

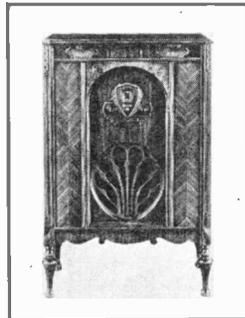
Through the use of three screen-grid tubes plus the "equalized band pass filter" and six tuned circuits, unusual selectivity at all points of the dial is obtained with the new SK-4 receiver, according to A. H. Grebe & Co., Inc., Richmond Hill, N. Y. But one stage of transformer coupled amplification is employed, affording improved reception quality. An automatic



Model 285

voltage regulator, provision for a phonograph pick-up, and an illuminated translucent dial scale are some of the features of this set.

Model 21950 is a lowboy of the



Model 21950

open front type. Price, \$219.50.

Model 285 combines walnut and mahogany in the cabinet with paneled sliding doors. Price, \$285.

Model 250 is a radio-phonograph combination, in a lowboy cabinet, with decorative side panels. Price, \$450.—*Radio Retailing*, October, 1929.



Model 450



## Stromberg Model 25 Speaker

In addition to its line of screen-grid receivers, the Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y., is putting out an improved floor-cabinet type of electro-dynamic speaker. This reproducer, which is known as No. 25, has 10 in. cone diameter, affording better radiation of low frequencies. The back panel of the speaker is removable. A "high-low" switch is provided to accommodate the speaker to the voltage of the lighting circuit on which it is used.

It is housed in a compact floor cabinet of American walnut finish, measuring 36 in. high x 19 in. wide x 11 in. deep. The intended retail price is \$85.—*Radio Retailing*, October, 1929.

## Shamrock Console and a Chassis

An eight-tube screen grid receiver with matched Utah electro-dynamic reproducer has just been placed on the market by the Shamrock Manufacturing Company, 114 E. 32nd St., New York City (formerly of Newark, N. J.) The tubes used are



four screen-grids, two 245's in push-pull, a 227 and a 280. The cabinet is made of solid walnut with burl walnut doors and overlays. It is 49 in. high x 30 in. wide x 17 in. deep. The intended retail price is \$139.50.

This receiver in chassis form for use with an a.c. or d.c. dynamic speaker, or a magnetic speaker, is also available. It may be had under the Shamrock trade name, the trade name of "Rembrandt" or under pri-

vate labels. The over-all dimensions are 22 in. x 8½ in. x 10 in. A phonograph pick-up is provided.—*Radio Retailing*, October, 1929.

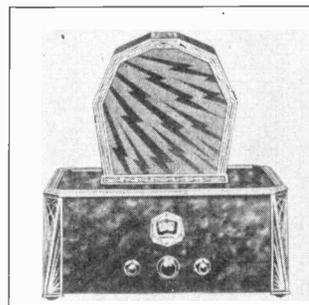
## Crosley Sets

The "Monotrad" chassis, the latest addition to the line of the Crosley Radio Corporation, Cincinnati, Ohio, has the triple-range control device. It is a screen-grid Neutrodyne receiver with 224's for the r. f. stages, a 227 power detector, one 227 in the first audio (resistance coupled), and a 280 rectifier. In a metal table case, as



## New Silver-Marshall Set

A new model of the "Silver" radio, made by the Silver-Marshall Inc., 6421 W. 65th Street, Chicago, Ill., to be known as the "Concert Grand" is now ready. It uses the No. 30 eight-tube screen-grid chassis and has a ten-inch dynamic speaker. The cabinet is made of matched oriental and butt walnut and is decorated with hand carvings. The center panel is made of bird's-eye maple.—*Radio Retailing*, October, 1929.



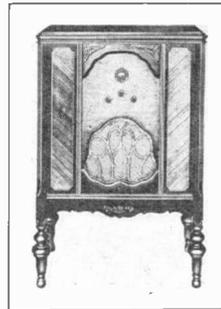
Model 31-S

Model 31-S, the intended retail price is \$65. With the addition of legs, making it an end table model, the price is \$70.

As Model 33-S, housed in a console cabinet of walnut veneer with a maple panel, the price is \$115.—*Radio Retailing*, October, 1929.

## Lightning Arrestor

A lightning arrestor with threefold duty is being made by the Insuline Corporation of America, 78 Cortlandt St., New York City. First, it gives positive protection against lightning and static discharges; second, it acts as a double fuse protection for the receiver, and third, it filters static, according to the manufacturer. A highly glazed porcelain base fitted with two mounting screw holes facilitates insulation. A \$100 free insurance bond is given with each arrestor.—*Radio Retailing*, October, 1929.



Model 33-S

## Dynamic Horn Unit

A powerful, but compact dynamic speaker unit of unique construction has been placed on the market by the Racon Electric Company, 18 Washington Place, New York City. It is called the "Baby Giant" and has a new type diaphragm, made of metal and cloth of extreme lightness. It weighs 11½ pounds. Undistorted output of 30 watts can be handled, the maker reports. The unit is made for 110 volt a.c. operation as well as for use with a 6-volt battery. It has a field consumption of one ampere. The over-all dimensions are 5½ in. high x 4½ in. in diameter. The intended retail price is \$50.—*Radio Retailing*, October, 1929.



## Emerson Receiver

A Neutrodyne set, utilizing two 245 tubes, four 227's, one 224 and a 280 rectifier, is announced by the Emerson Radio and Phonograph Corporation, 307 Sixth Ave., New York City. The radio frequency amplifier consists of three tuned stages and a tuned detector. A phonograph pick-up jack is provided. The intended retail price is \$100.—*Radio Retailing*, October, 1929.

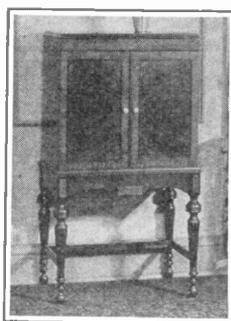
# World's Fair

This editorial section is prepared purely as a news service without advertising considerations of any kind.



## Radio-Phonograph Cabinet

An American walnut radio-phonograph cabinet equipped with an Allen-Hough "Rotor" electric motor and Webster electric pick-up, is offered by the Allen-Hough Carryola Company, 279 Walker St., Milwaukee, Wis. The panel can be cut to fit any standard radio set. The cabinet is 40 in. high x 27 in. wide x 15 in. deep. The set compartment measures 7 in. x 21 in. x 13½ in. A drawer for holding the records is provided at one side of the cabinet. The intended retail price, with pick-up and motor, is \$75.—*Radio Retailing*, October, 1929.



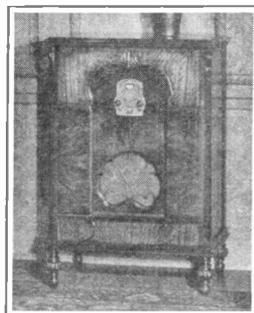
Model 60

## Bush & Lane Models 60 and 90

A choice of the de luxe or the screen-grid chassis is offered in the new Models 60 and 90 recently placed on the market by the Bush & Lane Piano Company, Holland, Mich.

Model 60 comes in a Sheraton design cabinet. A satinwood border sets off the butt walnut front. Price, \$199.50.

Model 90 is housed in an Italian Renaissance cabinet of modern adaptation. The front is made of contrasting woods in effective design. Price, \$217.50.—*Radio Retailing*, October, 1929.



Model 90

## Dynamic Unit for Talking Pictures

A dynamic speaker unit of new design has been announced by the Amplion Corporation of America, 133 W. 21st St., New York City. It is known as type AA-102 and displaces the older AC-100 model. The magnetic field of the AA-102 has been reduced to two-thirds the size of the AC-100, although the flux density has been increased by 7 per cent. The weight has been decreased from twenty to fifteen pounds.

A new feature is the composite diaphragm, which provides a double sound chamber above the diaphragm. The overall dimensions are 5½ in. high by 6 in. in diameter. This unit has been developed especially for talking motion picture use, although it can be used for all high volume public address work. It requires a field supply of 1.6 amperes at 6 volts d.c.—*Radio Retailing*, October, 1929.

## "Phono-Tabouret"

An interesting development by the Continental Radio Corporation, Fort Wayne, Ind., is the "Phono-Tabouret," consisting of an electric motor, turn-table and pick-up, built into an end table.

With this instrument phonograph records can be reproduced through the reproducer of the radio receiver. It is a compact piece of furniture and can be placed next to an arm chair or davenport.

Model C-5 is made of walnut, veneered with striped walnut. The two record compartments are velveteen lined. All ex-

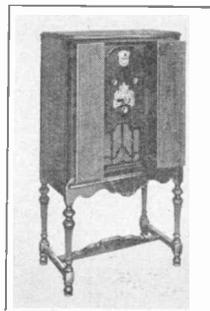


posed metal parts are finished in statuary bronze. A space for books is provided in the front. Price, \$115.

Model SR-10 comes in an American walnut cabinet. The two records compartments, which will accommodate either 10 or 12 in. records, are rosewood velvet lined. It is slightly larger than the Model C-5 measuring 29 in. long x 16½ in. wide x 26½ in. high. Price, \$150.—*Radio Retailing*, October, 1929.

## Earl Model 33

"Centro-Matic" tuning is being shown in the new Model 33 receiver just brought out by the Earl Radio Corporation, 122 E. 42nd St., New York City. This is an automatic station selector. The names of ten stations can be written on the illuminated cellulose scale. The tubes used in this set are four 224's, one being used as a detector and three in the r.f. stages, a 227 in the first audio, two 245's, and a 280 rectifier. A phonograph pick-up is provided. The cabinet is a semi-lowboy of walnut with narrow paneled doors, and encloses an inductor-dynamic speaker. Price, \$179.—*Radio Retailing*, October, 1929.



## The "Theremin"

A radically new type of musical instrument, called the "Theremin," is now being made by the Radio-Victor Corporation, 233 Broadway, New York City. Fundamentally it consists of two oscillators, forming a heterodyne beat-note. Seven tubes, are used, namely: three 227's, one 224, a 199 or a 120, two 171A's and a 280 rectifier; as well as two metal bars and a reproducer. One bar is perpendicular and controls the tone or pitch, the other is a looped horizontal bar to control the volume. It is operated by standing in front of the instrument and moving the left hand in front of the looped bar and the right hand in front of the perpendicular bar. This changes the capacity of the circuits which varies the beat-note. A separate dynamic speaker is recommended for use with this device. The price is \$175, less tubes.—*Radio Retailing*, October, 1929.



## Victor R-52

The Victor Talking Machine Division, the Radio-Victor Corporation of America, Camden, N. J., offers its "Micro-synchronous" receiver in a new cabinet of the "chest and stand" type. Matched butt walnut veneers are used in the inlaid medallions of the doors. Price, \$215.—*Radio Retailing*, October, 1929.

## Sparton D.C. Sets

To meet a definite demand in many sections, the Sparks-Withington Company, Jackson, Mich., announces that its Models 931 and 301 are now available with d.c. circuits. The prices are the same as for the a.c. models, namely: Model 931, \$179.50 and Model 301, \$274.50.—*Radio Retailing*, October, 1929.

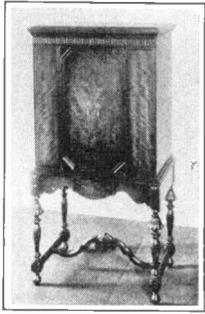
## De Forest 422 and 410

Two new tubes have been brought out by the DeForest Radio Company, Jersey City, N. J. They are a 422 d.c. screen-grid Audion and a 410, which is adaptable for use as a r.f. power amplifier in transmitting practice. Several improvements have been made in both of these tubes.—*Radio Retailing*, October, 1929.



## Lyric Sets

The cabinet design of the lowboy model receiver made by the All-American Mohawk Corporation, Chicago, Ill., has been changed slightly and the new designation of this receiver is Model 94. Any one of the four chassis offered may be had in this new cabinet as well as in the Model 95 highboy cabinet. The chassis available are: a.c. screen-grid, d.c. screen-grid, a.c., and d.c.—*Radio Retailing*, October, 1929.



Model A-35

## Oxford Speakers

The Oxford Radio Corporation, 3200 W. Carroll Ave., Chicago, Ill., announces an addition to its regular line of electro-dynamic speakers in the "Auditorium Series." They have an over-all height of 12½ in. and a diaphragm measuring 11½ in.

These reproducers are designed especially for theater work and with sets where a speaker of exceptionally large size is desired. The one-piece cloth diaphragm, which is metallized by a special process, is puncture-proof, with a controlled edge.—*Radio Retailing*, October, 1929.

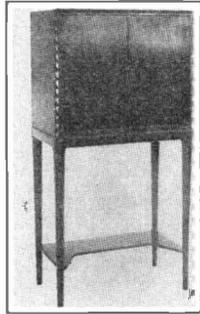


Model 47

## Radiolas 47 and 67

Two new radio-phonograph combinations recently were shown by the Radio-Victor Corporation, 233 Broadway, New York City, one with the screen-grid chassis and the other with the super-heterodyne circuit.

Model 47 is the screen-grid model. The phonograph unit is equipped with an induction disc motor, automatic stop and a tone arm of new design to lessen wear on the record. A convenient record well is built into the walnut cabinet. The reproducer is an electro-dynamic. Switching from radio to phonograph and back may be accom-



## Ware Receivers

The screen-grid receiver recently brought out by the Ware Manufacturing Corporation, Trenton, N. J., is available in four console cabinets as well as in a table cabinet. Two 224 tubes, two 227's, one 245 and a 280 rectifier are employed in the Vreeland band selector tuning system. A dynamic speaker is standard equipment, as well as a phonograph pick-up.

The illustrated "Trianon" is modernistic in design. Price, \$725.

The "Byron" is made to harmonize with either Spanish or Italian type interiors. Price, \$400.

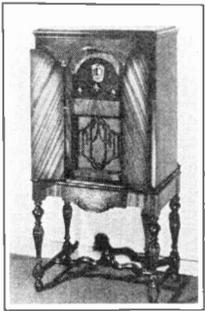
The "Number Ten" is of the highboy type. Price, \$235.

The "Metropolitan", a five-tube set, in a highboy cabinet with diagonally matched veneer doors, is \$150. The table set is \$135.—*Radio Retailing*, October, 1929.

## Radio Cabinet

A cabinet designed to accommodate either the Radiola 33 or 44 chassis is now available from the Radio Cabinet Company, 818 Butterworth, S. W., Grand Rapids, Mich. It comes completely equipped with switch, escutcheon plate, etc., and is 46½ in. high x 28 in. wide. A dynamic speaker made to operate with either model is furnished.

In this cabinet, the Radiola 33 could retail at slightly less than \$100 and the 44 at approximately \$150.—*Radio Retailing*, October, 1929.



Model A-33

## Three Sonora Receivers

A line of three radio receivers, with the exclusive Sonora "synchro-tone" modulator and screen-grid tubes, is offered by the Sonora Phonograph Co., Inc., 50 West 57th St., New

York City. Each uses three 224 tubes, a 227 detector, two 245's in push-pull and a 280 rectifier. The power dynamic speaker includes a special filter to eliminate a.c. hum. Even the faintest sound is reproduced with the same fidelity as the original broadcast with the synchro-tone modulator, the maker claims. An auxiliary antenna is provided for use in place of the outside aerial if desired.

Model A-31 is a walnut low-



Model A-31

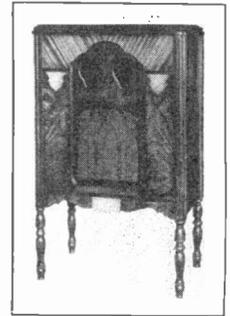
boy of modified Gothic design, panelled with lacewood. The instrument panel is matched butt walnut. This cabinet is of the open-face type and stands 44 in. high. Price, \$149.50.

Model A-33, in the highboy style, has attractive overlays. The French chateau doors have a modernistic touch in the matching of grains. It is 48 in. high. Price, \$179.50.

Model A-35, the largest of the trio, is a William and Mary highboy. The matched walnut doors have an ebony moulding. The height is 51½ in. and the width, 27 in. Price, \$235.—*Radio Retailing*, October, 1929.

## Cabinets

An extensive line of radio cabinets, sold direct to the dealer, is being made by the Wood Cabinet Corporation, 192 Lexington Ave., New York City. All have a hand-rubbed finish. Model 101, illustrated, is 42 in.



Model 101

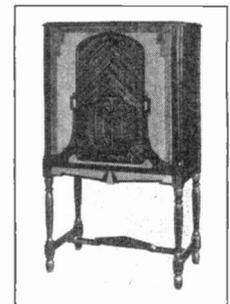
high x 25½ in. wide and accommodates a set 10½ in. x 24 in. x 14 in. It is of the open face type.

Model 102 is one inch higher. The set compartment is the same size. The doors are of the folding half-door style.

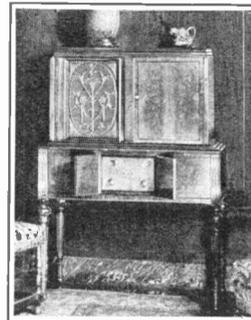
Model 301 stands 46½ in. high x 27½ in. wide. The set compartment is 11 in. x 24½ in. This cabinet has the open face front.

Model 302, illustrated, has the same outside dimensions but will accommodate a receiver 25½ in. wide. It is also of the open face front style.

Model 801 is 40 in. high and will house a set 9½ in. x 22 in.—*Radio Retailing*, October, 1929.



Model 302



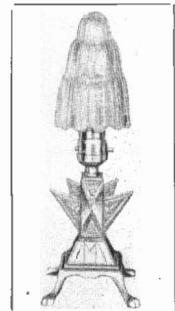
Model 67

plished without retuning the radio unit. The intended retail price is \$275.

Model 67, with the super-heterodyne circuit, comes in a Louis XIV cabinet. The phonograph unit is equipped with volume control and motor-speed regulator, which is adjustable by the turn of the screw. Price, \$690.—*Radio Retailing*, October, 1929.

## Combination Antenna and Lamp

An attractive combination lamp and inside aerial is offered by the Art Specialty Company, 500 S. Throop Street, Chicago, Ill. This device may be used by itself or in combination with the outside aerial. It is modernistic in design and made of fountain glass with an old English copper plated base. The height is 12 inches. Intended retail price, \$6.50.—*Radio Retailing*, October, 1929.



## Padded Set Covers

Complete protection for radio cabinets in delivery is provided by the "Slingabout" made by Charles J. Webb & Company, 116 Chestnut St., Philadelphia, Pa. It is a padded jacket covering the top and four sides and is made of gray canvas lined with soft flannel and interlined with thick padding. It comes in three standard sizes. The intended retail prices are \$5, \$6 and \$7, respectively.—*Radio Retailing*, October, 1929.





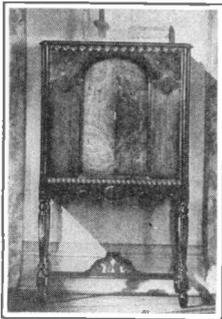
Model H

## Two Bosch Receivers

Models 16 and H have been added to the line made by the American Bosch Magneto Corporation, Springfield, Mass. The chassis in these receivers uses three 224's, one 227, two 245's and a 280 rectifier.

Model 16 is highboy, 48½ in. high and 28½ in. wide, with sliding doors. Price, \$198.50.

Model H comes in a Tudor design walnut cabinet, with attractive walnut veneer decorations. Price, \$198.50.—*Radio Retailing*, October, 1929.



Model 16

## Temple D.C. Sets

The Temple Corporation, 5253 W. 65th St., Chicago, Ill., is now in production on two new d.c. models in both the standard and screen-grid types. The sets are equipped with the 14 in. Temple electro-dynamic speaker of the 110 volt d.c. type. The intended retail prices of these receivers are the same as for the a.c. models, namely: \$149 for the lowboy, \$169 for the highboy.—*Radio Retailing*, October, 1929.



## Electrad Resistors

Electrad, Inc., 173 Varick St., New York City, is now making a line of layer-wound high resistances in ratings from 10,000 to 250,000 ohms. The price range is from \$1.50 to \$5. These units are covered with a heavy coating of moisture-proof enamel. The contact bands and soldering lugs are made of Monel metal.—*Radio Retailing*, October, 1929.

*Radio Retailing*, October, 1929

## Freed Model NR-90

Model 90, an eight tube receiver, employing four 224 tubes and two 245's, is the latest product of the Freed-Eisemann Radio Corporation, 122 E. 42nd St., New York City. An automatic tuning device is a feature of this set. A station is tuned by sliding the indicator arm to the tuning point, which is marked on the cellulose scale, and pulling the knob out. Ten station numbers may be written on the illuminated scale. The cabinet is made of walnut veneer. Price, \$182.50.—*Radio Retailing*, October, 1929.



## Q.R.S. Portable Phonographs

Five portable phonographs are now a part of the line being shown by the Q.R.S.-DeVry Corporation, 333 N. Michigan Ave., Chicago, Ill.

Model 15 has a Heinemann motor, as have Models 20 and 25A, and a curved tone arm. The reptile skin covered case comes in red, blue or black. It measures 7 in. x 11 in. x 18½ in. and the weight is 11½ lb. Price, \$15.

Model 20A has a built-in air column tone chamber, drawn-brass, ball-bearing, throw-back tone arm, special reproducer, spacious record album and a velvet-covered turntable. The reptile skin fabrikoid case comes in red, blue, brown or black. Price, \$20.

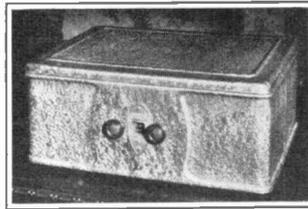
Model 25A is slightly larger in size (9½ in. x 13½ in. x 17½ in.) and weighs 19 lb. It has a Heinemann "Master Flyer" motor. The record album will



Model 375

carry both 10 in. and 12 in. records. This model comes in the same colors as Model 20A. Price, \$25.

Models 375 and 50 are wound by an especially constructed electric motor, powered by three 1½-volt dry batteries, and will run about six months with ordinary playing. An air column tone chamber, special QRS reproducer, nicked hardware, and velvet turntable are common to each. Model 375 in a black shark-hide fabrikoid case, is \$37.50. Model 50, in a black elephant-hide fabrikoid case, is \$50.—*Radio Retailing*, October, 1929.



Models 45 and 60

## Apex Receivers

The 1930 line of Apex radio sets built by the U. S. Radio and Television Corporation, 1340 Michigan Ave., Chicago, Ill., is now ready.

Model 11 with the super-screen-grid chassis, which has three tuned circuits using two 224's in r.f. amplification, two stages of audio with two 245's in push-pull in the last stage, two 227's and a 280 rectifier, comes in an American walnut veneer cabinet, 40½ in. x 27½ in. The speaker in this model, which is standard for all the new models, is a 12 in. electro-dynamic reproducer. The intended retail price is \$115.

Model 115 with the "high-gain Neutrodyne" circuit, utilizing



Model 160

five 227 tubes, two 245's and a 280 rectifier in three tuned stages of r.f. and two audio stages, is enclosed in the same style cabinet. Price, \$115.

Model 14 may be had with either chassis. It comes in a taller cabinet (47½ in. high) with sliding doors. Price, \$140.

Model 24 with screen-grid chassis and remote control, in a cabinet similar to that used with Models 14 and 140, is \$240.

Model 160, the super-high-gain Neutrodyne set in a highboy cabinet is \$160.

Model 60, a table set with the Neutrodyne circuit, in a metal cabinet, size 18½ in. x 13½ in., x 7½ in., is \$60.

Model 45, a battery operated table set using five 201A's, one 171A is \$45.—*Radio Retailing*, October, 1929.

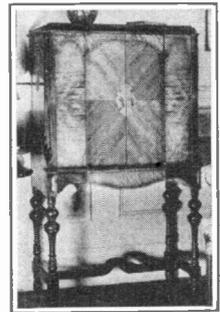


Model 11

## New Tube Rating

The Sylvania Products Company, Emporium, Pa., announces a new rating for the SX-280

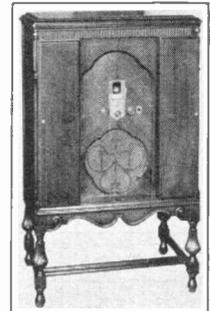
rectifier tube. This tube may now be operated with as much as 400 volts a.c. applied to each plate of the tube, providing the current drain does not exceed 110 mill-amperes. This will allow considerably higher d.c. voltages to be obtained for operation of power tubes.—*Radio Retailing*, October, 1929.



## Philco Model 95

The new Model 95 chassis, just put out by the Philadelphia Storage Battery Company, Ontario and C Sts., Philadelphia, Pa., will be available in the same style cabinets as used with the previous series. Three 224's in the r.f. amplifier, three 227's, two 245's in push-pull and a 280 rectifier are the tubes employed. One of the features of this receiver is the fact that a double-tuned antenna circuit is used ahead of the first screen-grid tube, eliminating, so the manufacturer says, "cross talk". It is also claimed that a resistance-coupled first audio stage ahead of the push-pull power stage, combined with a radically new detector circuit, provides improved tone quality.

The illustrated cabinet is the highboy model. Price, \$169.50. In the table model the price is \$97. The highboy de luxe is \$225.—*Radio Retailing*, October, 1929.



## Radio Phonograph

A radio-phonograph combination with the regular Gulbransen screen-grid radio receiver using nine tubes in line is announced by the Gulbransen Company, Chicago Ave., Chicago, Ill. The cabinet is of the lowboy type with half-swinging doors. The intended retail price is \$245.—*Radio Retailing*, October, 1929.

## New Paent Products

A new type of adapter, with a new change-over switch, is now being supplied with the Phonovox pick-up made by the Paent Electric Company, 91 Seventh Ave., New York City. While it is especially designed for screen-grid sets, it may also be used with a.c. sets using a five-prong detector. With the change-over switch, instant change from radio to record is possible. This device is known as the "Phonotrol."—*Radio Retailing*, October, 1929.



Model 2

## Radio Cabinets

Five styles of radio cabinets are being manufactured by the Starr Piano Company, Richmond, Ind.

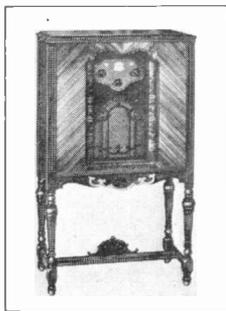
Model 1 is made of grained American walnut with a front of diagonally matched Oriental walnut. A narrow beaded molding edges either side of the panel board.

Model 2, illustrated, is a highboy with mottled curly maple side-panels. The sliding doors are made of four piece burl walnut and when open reveal a V-shaped panel of Oriental walnut.

Model 7 has side panels of burl walnut. The swing-back doors are of four-piece striped mahogany, centering to a butt walnut oval. The veneers on the backs of the doors are the same but without the oval center piece.

Model 10 has a two-tone dial board. The sliding doors are made of matched burl walnut.

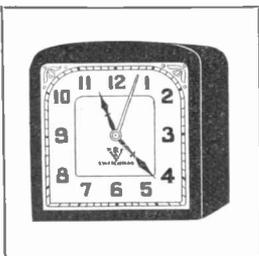
Model 4 is a walnut cabinet with curly maple side panels. The doors are of the half swinging type. Price, \$60.—*Radio Retailing*, October, 1929.



Model 10

## Radio Time Clock

A new and improved model of the "Radio Switchman," made by the R-V Manufacturing Company, Marshfield, Mass., is announced. It comes in a walnut finished Bakelite case, 4 in. high. This device is entirely mechanical, consuming no current. The capacity of the switch has been increased to 600 watts. To operate, plug the cord from the radio receiver into the clock, place the wire from the clock into the light socket, set the time and pull the lever. All necessary cords are furnished. Price, \$10.—*Radio Retailing*, October, 1929.



## Stromberg 846 in Period Cabinets

The illustrated Chinese design cabinet, one of the three new period cabinets in which the Model 846 screen-grid receiver, made by the Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y., is now available, is attractively decorated on the front and sides, and has carved front apron, legs and stretchers. The entire inside panel simulates hand-carved ivory and has "gold" knobs. Price, \$795. The other cabinets, one of Italian Renaissance design and the other in the English Linenfold style, are also available. The prices are \$745 and \$695, respectively.—*Radio Retailing*, October, 1929.



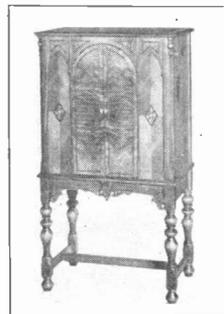
The "Serenader"

## Two Sterling Sets

The de luxe chassis being made by the Sterling Manufacturing Company, 2831 Prospect Avenue, Cleveland, Ohio, may now be had in two new cabinets. The tubes used in these sets are three 224's, two 227's, two 245's and a 280 rectifier.

The "Imperial" model is a walnut cabinet of the Tudor period. The doors are faced, both inside and out, with matched burl walnut. The panels on either side are diamond matched walnut. Price, \$187.50.

The "Serenader" is a lowboy of walnut with a control panel of burl walnut. The side panels are made of striped walnut. Price, \$149.50.—*Radio Retailing*, October, 1929.

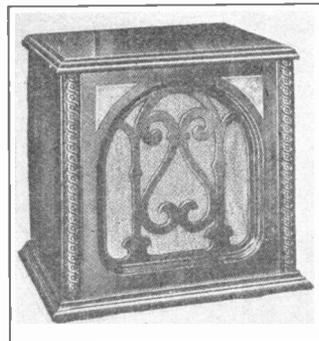


The "Imperial"

## Muter Dynamic Speakers

The Model 4610, 110-volt, a.c. "ultra dynamic" speaker chassis being made by the Leslie F. Muter Company, 8440 South Chicago Avenue, Chicago, Ill., employs a 280 tube as a rectifier. A dual type of input transformer is used. The over-all dimensions are 10 1/4 in. wide x 10 3/8 in. high x 7 in. deep. The intended retail prices are: for 110 volt, 60 cycles, \$27.50; for 90 volt, d.c., \$25; and for 6 volt, d.c., \$22.50.

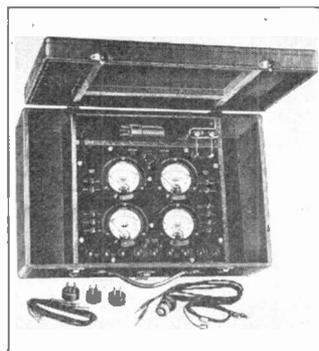
Model 4630, the 110 volt, a.c. chassis in the illustrated cabinet, is \$42.50. In a console cabinet (Model 4635), the price is \$52.50.—*Radio Retailing*, October, 1929.



## Voltage Control and Filters

A heavy duty line voltage control, No. 210, has been placed on the market by the Thermatrol Manufacturing Company, Springfield, Mass. It is built as an accessory and rated at 75 to 150 watts.

Two filters are also announced at this time. No. 460 is for use in eliminating line noises from small motors and appliances. It is built as an accessory and comes complete with extension cords. "Filtrol" No. 458 is designed for heavier apparatus such as oil burner motors, electric ice boxes and other motors and generators. The housing is similar to the standard outlet box.—*Radio Retailing*, October, 1929.

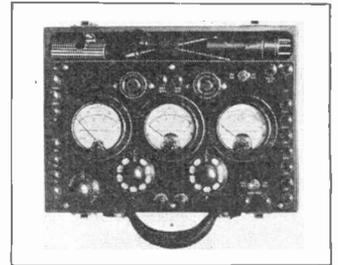


## Set Analyzer With Tube Carrier

A new 4-instrument set analyzer with a tube merchandising case has been brought out by the Jewell Electrical Instrument Company, 1650 Walnut St., Chicago, Ill. It has two compartments, size 4 1/4 in. x 11 1/4 in. x 5 1/2 in., and a drawer, size 11 1/4 in. x 10 3/8 in. x 2 1/4 in., for carrying tools and tubes. This kit is known as Pattern 408 and contains the same test equipment as Pattern 409.—*Radio Retailing*, October, 1929.

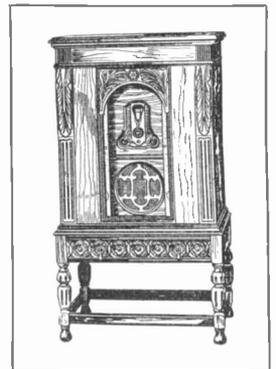
## Weston Set Tester 547

A complete testing service is offered with the new Model 547, a.c.-d.c. radio set tester of the Weston Electrical Instrument Corporation, Newark, N. J. Three Weston instruments are provided—an 8-range d.c. model 301 for 750/250/100/50/10/5 volts, 100/5 milliamperes; a double range d.c. model 301 for 100/20 milliamperes, and a five range a.c. model 476 for 750/150/16/8/4 volts. The case is Bakelite (12 3/8 in. x 9 in. x 3 3/8 in.) with a carrying handle and a compartment for accessories and small tubes.—*Radio Retailing*, October, 1929.



## Stewart-Warner Combination

A radio-phonograph combination in an Elizabethan period design console is now being made by the Stewart-Warner Corporation, 1836 Diversey Parkway, Chicago, Ill. It may be had with either the screen-grid or "balanced bridge" radio receiver. A Gordon phonograph motor, changeover radio-phonograph switch and volume modulator are a part of the equipment of this instrument. The cabinet is made of American walnut, with panelling of Australian lacewood and Oriental walnut, and has sliding doors. The record drawer will hold 20 records. With screen-grid receiver and electro-dynamic speaker, the price is \$235.75. For battery operation with "Dyphonic" speaker, \$206. With the "Balanced bridge" set the price is \$232.25. For battery operation, \$208.25.—*Radio Retailing*, October, 1929.



## Convenience Outlet Plates

Several types of convenience outlet plates are being manufactured by Swan-Haverstick, Inc., Trenton, N. J. They range from an aerial and ground combination to a ground, aerial, A-neg., A-pos., B plus 45 and B plus 90 combination. The prices vary from \$1 to \$2.25.

A particularly useful plate is the aerial, ground and indoor antenna combination. This model has the antenna plug on the reverse side. The intended retail price is \$2.—*Radio Retailing*, October, 1929.

# THIS MONTH in the Radio Industry

## "Light's Golden Jubilee" to Honor Edison

On Oct. 21, elaborate ceremonies at Dearborn, Mich., and in many other communities, will mark the fiftieth anniversary of the invention of the incandescent bulb. Thomas Alva Edison will be the guest of honor at the celebration. The program will include the dedication of the Edison School of Technology, and of the Museum of Edisoniana. Henry Ford, intimate friend of the great inventor, has reconstructed at Dearborn the Menlo Park laboratory in which Edison carried out his first research work. The climax of the occasion will consist of a large banquet at which many distinguished guests will be present in tribute to the "Sage of South Orange."

It is the plan of the National Electric Light Association to sponsor a national chain broadcast of this celebration. This program will contain many features of more than usual interest.

## Steinite Forms Subsidiary

The organization of the Aircraft Radio Corporation as a subsidiary of the Steinite Radio Company of Fort Wayne, Ind., was recently announced by Oscar Getz, vice-president of the latter organization.

The Aircraft Radio Corporation has taken over the Atchison, Kan., plant of the Steinite Company, and will build a specially designed receiving set for airplanes, as well as a direct current set for automobiles. It also will manufacture direct current sets for the farm market.

This new Steinite subsidiary will be under the direction of Fred W. Stein. The automobile and aircraft set, which is extremely compact and light in weight, is a product of his invention.

## Marshall Earns Promotion

W. L. MARSHALL has been appointed general advertising manager of the Radio-Victor Corporation of America. He directed the successful campaign with which Victor radio was introduced.

## Temple Builds New Plant

The Temple Corporation of Chicago has signed contracts for the construction of a new plant in the clearing industrial district that will provide sufficient space, it is claimed, to permit the manufacture of 250,000 radio receivers per year.

## Oro-Tone Acquires Non-Set Stop

The Oro-Tone Company, tone-arm and accessory producers for radio combinations and phonographs, has taken over the sale of the automatic non-set stop, according to an announcement by T. A. Galt, general manager.



## Hadley and Gulbransen Confer

Dr. Henry Kinball Hadley, the distinguished American composer, and A. G. Gulbransen discuss plans for a series of Saturday night chain programs of orchestral music which the former will conduct, over the Columbia chain, for the Gulbransen Company.

## Wise with Sylvania

Roger M. Wise has been appointed chief engineer of Sylvania Products Company, Emporium, Pa. During the war he was chief radio electrician in the Naval Air Service, in which capacity his responsibilities took him to all the major air stations in addition to the Bureau of Standards at Washington.

To join Sylvania he resigned the position of chief engineer for E. T. Cunningham, Inc., with which company he has been connected during the past seven years.

## RCA Increases Certain Tube Prices

The Radio Corporation of America has increased slightly the list price of seven types of battery set tubes. Effective September 3, the UX-199 was priced at \$2.50; the UV-199 at \$2.75; the WD-11, the WX-12, the UX-240 and the UX-120 tubes at \$3 each. The UX-200-A tube will sell for \$4.

THE SCHULTZ MACHINE CO., INC., has acquired the assets and business of Vacuum Tube Products, a Hoboken concern, to form a new company under the name of Radio Products Corporation.

## Further Comment on Dubilier Decision

That most firms manufacturing radio sets using a hum adjuster for balancing a.c. hum, as well as receiver and power amplifier equipment using grid bias, will be affected by the recent decision of Judge Hugh M. Morris, is the opinion of many well posted radio men.

In this decision in the suit of the Dubilier Condenser Corporation against the Radio Corporation of America Judge Morris decided, it will be remembered, in the case of the first patent (No. 1,455,141), providing means for permitting the use of alternating current from house lighting systems in radio sets to replace A and B batteries, that this clause was valid and infringed. The court held that the second patent (No. 1,606,212), on reproducers, did not infringe. It held that the third patent (No. 1,635,117), relating to the use of a grid-bias for sets and amplifiers, was valid and infringed.

To date several large manufacturers of receivers hold licenses under these patents from the Dubilier company.

## Senaue Joins Duovac

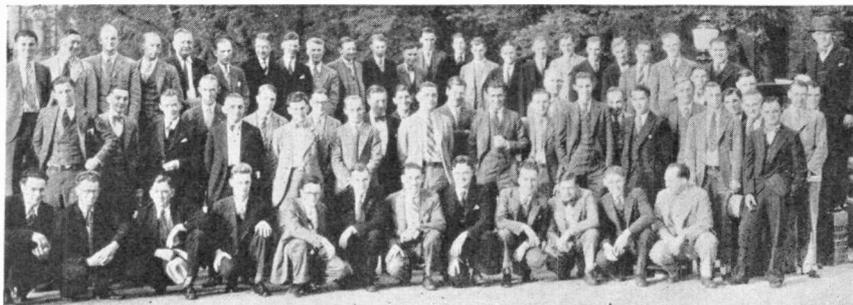
DR. ALEXANDER SENAUE, former incumbent of the chair of radio communication, College of Electrical Engineering, at New York University, has been retained by the Duovac Radio Tube Corporation, of Brooklyn, as consulting engineer.

## Kellogg Establishes Ohio Plant

The Kellogg Switchboard and Supply Company has announced the establishment of a factory branch to market Kellogg screen-grid receivers in the Cleveland territory. F. W. Lorenz, formerly sales representative for the Ohio district, will be in charge.

DAVID B. CETRON was recently made merchandise manager for Haynes-Griffin, Inc., New York. J. W. Griffin, president, announced that the company planned a decided expansion of their retail activities.

## Service Men Go to School at Jackson, Mich.



A post-graduate school for dealers' service men is held, from time to time, at Jackson, Mich., under the direction of the Sparks-Withington Company. Here we view the complaint doctors caught after a session in applied circuitology.



### The "Beaches" on the Beach

This picture could be entitled, "Mr. and Mrs. Beach and All the Little Pebbles," if we went in for that sort of thing. Mr. beach is the "head man" of Bush & Lane Piano Company, Holland, Mich., but that's no reason for his holding up this photo until October.

### Fenner Heads Service Section

To secure more efficient service for the ultimate purchaser, the Radio Manufacturers Association has announced a new division to be entitled the Service Section, under the supervision of H. E. Fenner. This unit will recommend the adoption of certain standard servicing procedures of advantage to all radio outlets, and, through them, to the public. It hopes to compile a practical radio service manual and to establish uniform specifications for testing equipment and tools.

### Latham Joins Temple

Gene M. Latham, of New York City, has been appointed district sales manager of the Temple Corporation. He comes to the Temple organization from Atwater Kent and will have charge of the New York and New Jersey territory.

### Catalog Lists Sets, Speakers, and Company Officials

The General Radio Catalogue, 1929-30, Winter Edition, has just been published by the General Contract Purchase Corporation. Listings include names and addresses of set and speaker manufacturers, company officials, association memberships, patents and patent holdings, types of sets, tubes, speakers, cabinets and rectifiers, and list prices of sets and speakers. The book may be obtained from the company's offices in the Graybar Building, New York City.

### Triad Makes Correction

We are informed by the Triad Manufacturing Company that Samuel E. Sanford has been appointed sales engineer and not sales manager as the company originally announced. H. H. Stienle is sales manager for the company.

### Warren J. Keyes Dead

Warren J. Keyes, vice-president of the Earl Radio Corporation, jumped to his death from his room on the eleventh floor of the Shelton Hotel, New York, on October 1.

## Two Contests Will Feature Chicago Show

At the Eighth Annual Chicago Radio Show, October 21-27, the winners of two nation-wide contests will be chosen.

The management of the exhibition will assemble examples of the oldest radio apparatus in the country as the nucleus for a national museum representing the history of the development of the industry. For the oldest workable receiver entered and displayed during the show, cash prizes totaling \$175 will be awarded, including a first prize of \$100.

The second contest is an essay competition for women on the subject "What Radio Means to Me." The winner will preside during the Chicago show as Radio Queen.

Much interest is expected in the display of miniature and model apparatus which will be a feature of the show. Photo-radio, television, high-speed wireless, ship-to-shore, railroad and airplane apparatus will be represented. One of these interesting models will be "WJZ," the key station of the National Broadcasting Company, at Bound Brook, N. J. The making of this model exactly to scale called for an exacting air and ground survey of the site.

## Atlantic City Gets the Trade Show

*By a unanimous vote the Show Committee of the Radio Manufacturers Association selected the new Civic Auditorium, Atlantic City, N. J., as the scene for the 1930 Trade Show.*

*Eastern dealers, wholesalers and manufacturers, it was felt, were entitled to an Atlantic coast location this coming summer. Economic conditions, as well, further justified this decision, according to chairman J. B. Hawley in a statement to a representative of Radio Retailing at the Astor Hotel, New York City, September 26, following the adjournment of his committee.*

*The exact date was not determined but it undoubtedly will be set for the last week in May or the early part of June.*

*The Music Industries Chamber of Commerce will not hold its 1930 convention concurrently, as was the case this June at Chicago. Its 1930 get-together will be staged at the Commodore Hotel, New York. The date will be announced later.*

*Ample space will be available in the vast reaches of the Atlantic City \$14,000,000 Auditorium not only for the customary exhibits but for demonstrations in the sound-proof room adjacent to the main hall.*

### Edison Needle Type Records

The new Edison needle type records are now under production. Like most other needle type records they are made in both 10 and 12-in. sizes. Their appearance is familiar and conventional except for the labels which are gold for the classical and operatic records and black for the standard, popular, tune recordings.

JOE RINES and the TRIADORS have contracted to make records for Brunswick.



### "Are You There?"

At his desk in Jackson, Mich., Harry G. Sparks, sales manager of the Sparks-Withington Company, pressed the button of the Spartan automobile horn before him and the chime was heard in the London office of the Graham Amplion, Ltd., 4,000 miles away, over the new London telephone line.

### Estey Joins United

One of the leading sales and advertising executives in the country, F. Clifford Estey, has just been appointed assistant to A. R. Hill, president of the United Reproducers Corporation, of Springfield, Ohio.

Mr. Estey was with Crosley for two years previous to joining the Geyer Company, of Dayton, to assist in handling the United Reproducers advertising. Within a few months his work in introducing the Kyelectron receivers was so outstanding as to result in this well deserved promotion.

### Radio's "Prince" Greets Radio's Queen



The most beautiful radio artist in America, and as such crowned "Queen of Radio," Olive Shea, Station WABC, Columbia System, receives the cup of approbation from the hands of Clay Irwin—a "Prince" within the same Kingdom. The scene is laid in Madison Square Garden, New York City, during the Radio World's Fair.

### Steinite Celebrates New Factory

The recent opening of the new Steinite plant in Fort Wayne, Ind., was attended by over 200 jobbers from all parts of the country. Features of the convention were the formal dedication, a theater party, and golf at the Fort Wayne Country Club.

THE SAN FRANCISCO RADIO SHOW, held during August, was attended by over 100,000 people.

W. F. MCAULIFFE, who has been a member of the Kolster Radio Corporation merchandising division since 1925, has been appointed assistant to the executive vice-president, according to a recent dispatch.

## Activities of the Manufacturers

POWRAD, INC., manufacturers of paper and by-pass condensers, Brooklyn, N. Y., have installed additional high vacuum impregnating tanks and automatic machinery to take care of their increased condenser demands.

Announcement has been made by the COLIN B. KENNEDY CORPORATION, South Bend, Ind., of the addition to its executive forces of C. J. Callahan, who will assume the duties of sales promotion manager. For several years, Mr. Callahan was with the Zenith Radio Corporation of Chicago.

With the appointment of 31 additional distributors throughout the country, the sales force of MARVIN RADIO TUBE CORPORATION of Irvington, N. J., is now complete, according to F. A. LaBaw, general sales manager.

To meet the demands of a trebly increased business, the AMRAD CORPORATION of Medford Hillside, Mass., has acquired a large factory in North Somerville, near its present central plant. Amrad now has three factories in action.

A "New Organization of Old Manufacturers" is the term which Harry H. Steinle, sales manager of the TRIAD COMPANY of Pawtucket, R. I., applies to his organization which is now in production on tubes of all types including tubes for television transmission and reception.

## Kolster Obtains Control of Earl Stock

The Kolster Radio Corporation will acquire control of the Earl Radio Corporation through an exchange of common stock on the basis of one share of Kolster for each three of Earl Radio.

Rudolph Spreckles will continue as chairman of the consolidated company, with Ellery W. Stone, present president of Kolster, as chairman of the executive committee, and Clarence A. Earl as president.

Operations of the Kolster Radio Corporation, Earl Radio Corporation and the Freed-Eisemann Radio Corporation will be continued as distinct units without disturbing contracts with existing dealers and distributors.

## Temple Promotes Sales Via Air Route



The campaign to increase Temple radio sales, conducted by director of sales promotion Cliff Bettinger and pilot Frank Hoffman, in the Aristocrat model, high-wing, cabin monoplane, "Temple of the Air," will be concluded at the Chicago Radio Show, October 21-27, with the presentation of the plane to the Temple distributor who attains a higher percentage of sales than any other jobber. The photo shows the craft in Louisville where dealers and their families admired it on its nation-wide tour.

## RADIO SHOWS AND CONVENTIONS

**October 7-11:** National Electrical Manufacturers Association—Annual Meeting, Washington Park Hotel, Washington, D. C.

**October 7-12:** Ninth Annual Boston Radio Exposition, Mechanics Hall, Boston, Mass.

**October 7-12:** First National Electrical Exposition, Grand Central Palace, New York City.

**October 21-26:** Detroit Radio Show, Convention Hall, Detroit, Mich.

**October 21-26:** New Orleans States Radio Show, States Auditorium, New Orleans, La.

**October 21-27:** Eighth Annual Chicago Radio Show, Coliseum, Chicago, Ill.

**October 28-30:** Distributors Radio Show, Mayflower Hotel, Washington, D. C.

**October 28 - November 2:** Fourth Annual Long Island and Brooklyn Radio Exposition, 23rd Regiment Armory, Brooklyn, N. Y.

**November 11-16:** Electric and Radio Show, Philadelphia, Pa. Auspices of Electric Club.

## Battery Sets Due for Boom

E. A. Nicholas, vice-president of Victor radio, states that the lowly battery set is due for a healthy sale this fall.

There are some 10,000,000 homes in the country without electric wiring which have been entirely overlooked, in the rush to sell the 19,000,000 homes already equipped with power, he declares. And now the time and the merchandise have arrived to make a campaign on the unwired homes not merely practical but inevitable.

## Cunningham Advances Three Executives

Creating the title of vice-president has made possible the promotion of three top executives with the E. T. Cunningham Company. Those now entitled to this honor are: George K. Throckmorton, general manager; C. R. King, assistant general manager, and M. F. Burns, general sales manager.

E. W. Butler, connected for the past five years with the sales and engineering department, San Francisco office, E. T. Cunningham, Inc., has been transferred to the New York executive offices of this concern.

Sales of Cunningham tubes show an increase of more than 35 per cent for the first five months of 1929, as compared with the corresponding months of 1928, according to M. F. Burns.

Based on present conditions, he believes that his company's tube sales indicate that the coming 12 months will prove the greatest in radio history.

## Continental's New Executive



W. W. Dowdell is shown at his desk in the offices of the Continental Radio Corporation, Ft. Wayne, Ind. He has recently been appointed general sales manager of the organization.

## Growing Popularity of Furniture Mart

The growing popularity of the American Furniture Mart, Chicago, as a radio center has again been emphasized by the selection of its commodious club rooms as the scene for the recent distributor conventions of the Kellogg Switchboard and Supply Company and of the Stewart-Warner organization.

At present six set manufacturers, and more than 20 concerns building radio furniture, maintain permanent show rooms in this 34-story building on the shores of Lake Michigan.

## Electrical Exposition at New York

Electrical appliances and equipment that have played a significant part in the progress of the radio industry will have an important place in the First National Electrical Exposition which will be held in Grand Central Palace, New York, Oct. 7 to 12. The exposition is under the auspices of the Electrical Board of Trade of New York and the New York Electrical League.

CHARLES EISLER, president of the Eisler Electric Corporation, Newark, sailed recently to establish permanent agencies in several European countries.

# What the Wholesalers are Doing

## Jobbers Rout Bogus Ad Rates

In a recent survey conducted by the Radio Wholesalers Association, Chicago group, it was found that many members were being defrauded by "newspapers" whose plant consisted of little more than a proof press and a font of type. False circulation figures and adjustable space rates also were ruining conditions for reputable mediums.

A questionnaire asking for all space rate information was sent to 212 Chicago papers. The 172 who replied were sent affidavits to sign and return, attesting the truth of their reports. Only 87 out of the 172 complied with this request. The names of the papers who so certified their statements were sent to all members.

The result of the survey was to reduce rates in some papers 40 and 50 per cent. The service has proved so successful that it is being continued. The RWA suggests that similar campaigns elsewhere would produce equal benefits for other members.

## Distributor Appointments

The Day-Fan Electric Company has appointed H. R. Parkins of Dallas as its representative in the southwest.

A. H. Grebe & Company, Inc., has authorized the Revere Electrical Company of Chicago to distribute Grebe sets in eastern Iowa and the northern parts of Indiana and Illinois.

F. A. D. Andrea, Inc., has appointed the following new representatives: Julius J. Bantlin Company, Cincinnati; Du Pre Motor Company, Columbia, S. C.; Modern Appliance Company, Pittsburgh; Robertson-Cataract Electric Company, Buffalo and Rochester; George Worthington Company, Houston, Dallas, San Antonio and Louisville; Voss-Hutton Company, Little Rock; and the Shadbolt and Boyd Company, Milwaukee.

A. H. Grebe & Company, Inc., has appointed the Michigan Distributing Company of Detroit as distributor.

The Grier-Sutherland Company of Detroit has taken the Kolster and Brandes lines for eastern Michigan.

The Steinite Radio Company has appointed E. B. Gish of Amarillo, Tex., as local distributor.

The Zenith Radio Corporation has empowered the Jackson Stephens Company, of Dallas, Tex., to distribute its products throughout the greater part of that state.

The Continental Radio Corporation of Fort Wayne, Ind., has appointed the Griffith Piano Company of Newark as eastern distributor of the Star-Raider sets.

THE ZENITH RADIO CORPORATION, Chicago, has added four new field representatives. Carter B. Semple will cover central and southern United States, Charles A. Eyles, eastern United States, F. C. Buell, entire West Coast, and T. Alexander, northwest. The relations between factory and distributor will, under this increase of personnel, be, it is hoped, even closer and more co-operative than formerly.



## Is He Radio's Patriarch?

"Dad" McCanne celebrated his seventy-ninth birthday in El Paso, Texas, the other day. "Dad" doesn't claim to have spent all of his years in the radio business, but he does remember the first radio that came to El Paso—in fact he brought it there himself. And he has been selling sets ever since. The present name of his firm is the Southwestern Electric & Machine Company. Is McCanne "Radio's Patriarch?" Let's hear from other "old-timers."

THE SONORA PHONOGRAPH COMPANY, Inc., has appointed H. P. Schade Company, Philadelphia, to act as its distributor for eastern Pennsylvania.

## Get-Togethers

THE HOWARD ELECTRIC COMPANY, South Haven, Mich., entertained all its Chicago dealers recently. A trip through the factory and a banquet, at which six sets were distributed as prizes, were the feature events of the occasion.

Fifty ATWATER KENT dealers, in convention at Aberdeen, S. D., were addressed by Dr. John F. Dinwoodie, editor of the *Dakota Farmer*, and Charles F. Collinson, editor of the *Minneapolis Tribune*, recently.

THE GULBRANSEN COMPANY held its first radio convention in Chicago during the middle of September. Fifty-five jobbers attended.

THE TRIAD MANUFACTURING COMPANY held a two-day sales meeting and general outing in Pawtucket, early in September. Representatives all the way from Baltimore and even Chicago were present for the occasion.

Two hundred Philco dealers in Philadelphia were the guests of the MOTOR PARTS COMPANY, exclusive Philco distributors for the territory, at a banquet in the Benjamin Franklin Hotel, on September 13. The problem of advertising was discussed.

The A. A. SCHNEIDERHAHN COMPANY recently sponsored a meeting in Des Moines of 150 Atwater Kent dealers.

## RWA Passes 200 Mark

Within less than 17 months from its inception, the Radio Wholesalers' Association has attained a membership of 200 prominent, reputable wholesalers, and is still going strong.

Charles T. Lawson, vice-president of Day-Fan Electric Company, Dayton, Ohio, conducted a series of successful regional conventions of Day-Fan dealers on his trip through the Pacific Coast territory during August.

## Uses Remote Control in Demonstrating Radio Receivers



By means of a remote control box placed on a table at the rear of this demonstrating room, it is possible to operate any receiver on any reproducer, without moving from set to set. Wilkening, Inc., Philadelphia, Crosley and Amrad distributors, built this specially equipped room to enable its dealers to demonstrate to their customers in an attractive setting.

## General Motors Enters Radio

(Continued from page 64)

arrangements have been made whereby the General Motors Company will distribute the products of the Radio-Victor Corporation.

"For the benefit of our trade channels, it is hereby stated that we have no plans for changing our present channels of distribution through which products of the Radio-Victor Corporation, including Radiolas, Radiotrons, and Victor instruments, are supplied to the public."

### *Mass Production and Mass Sales of Sets?*

Many different interpretations have been put upon the advent of the General Motors group into radio. For a time, it was supposed that the R.C.A. license granted would apply merely to the installation of radio-set panels in the dashboards of cars, enabling General Motors to meet the competition of other automobile manufacturers now actively promoting such sales of automobile radio sets. Several of the new General Motors 1930 models are especially equipped for radio installation, and all the new Cadillacs have antennas built into their bodies.

While undoubtedly dashboards radio equipment will be a part of the new company's production, it is apparent that the manufacture and sales of standard home models loom large in the future plans, and that the new company's operations are to be built about large-scale sales of home receiving sets.

It is pointed out that General Motors would bring to its radio problem a vast mass-production experience, while its associated financing subsidiary, the General Motors Acceptance Corporation, would be well adapted for handling easy-payment sales. And with automobile selling still a seasonable business, having its slack period in the fall and winter months, present automobile dealers would afford a widely distributed sales organization for radio sets.

## I Believe in Records

(Continued from page 75)

checking up of each set before the call is made, so that the man assigned to the job knows in advance the make, age and history of the set he is to repair. It enables him to foresee what materials or tools will be required.

It is not only important to have such records as those outlined here but it is important to use them. The sales manager should take the time each morning to glance over the records of the day preceding, noting the salesman's records. He should check up at the end of the week and at the end of the month, noting weaknesses and looking back to his daily records to find their cause. He should periodically examine stock records, analyzing fast and slow-moving items. There will be no major leaks to catch under such a system of continual surveillance, for they will have been caught in their inception before they become factors.

## Analyzing Adv. Copy Facts

(Continued from page 69)

single feature. "Make definite points and then prove them," he emphatically declares.

That people are interested in brass tacks information about the more technical aspects of sound reproduction is reflected in Mr. Williams' \$43,000 gross sales record for 1927, the year following the inauguration of the argumentative type of copy. This volume was twice

that of 1926. Last year his sales again doubled those of the preceding twelve months.

"This kind of copy is *not* over the head of the average reader. On the contrary he or she is looking for just such information," declares Mr. Williams. "Many a new prospect who came to 210 Burdick Street as a direct result of reading one of these advertisements, said: 'I came here because I enjoy *good* music and I felt that you *must* know what you were talking about and would have the kind of a set and speaker I want.' Apparently this type of copy sells the house as well as the product."

"My thought in writing these advertisements," concludes Mr. Williams, "was that by attracting the thinking person the masses would follow. This theory proved out. After I had acquired an impressive list of well-to-do prospects it was much easier to sell the superficial 'run-of-the-mill' customers."

## At the New York Show

(Continued on page 65)

authorities on the subject freely admit great difficulties yet to be overcome before it becomes commercially practical.

Home movies, with and without talking accompaniment, are creating great interest. For sound reproduction both film and record are being used. Which will be more popular is yet hard to say. Within the next few months we may expect to see prominent companies placing this type of apparatus on the market. Great advances are to be expected in this direction and the public is due for some pleasant surprises.

All and all the radio industry shows a trend toward standardization with fewer models in each manufacturer's line, together with greater dollar value for the consumer.

### *RMA to Work for Better Broadcasting*

Measures to insure the broadcasting of public events, particularly prominent sporting affairs which otherwise would never reach the ears of the radio listener, were planned by the Board of Directors of the Radio Manufacturers Association at the Astor Hotel, New York, during Show Week.

Convinced that the broadcasting of baseball games, boxing contests, etc., actually increases the paid attendance at such events, and are highly essential to a continuing interest in broadcasting, RMA will campaign to the end that private promoters encourage, and not discourage, such action.

In the further development of radio programs, the association's broadcasting committee, headed by B. G. Erskine of Emporium, Pa., in conjunction with the merchandising committee, will enlist the interest of manufacturers and also work with the chain broadcasters.

## When the Camera Clicks

(Continued from page 71)

happens now and then, but in most cases the customer likes to be sold. He feels and takes more interest in the camera or projector after he has been shown and sold on the idea that the camera and projector that he has purchased is the proper camera or projector for his or her use.

"The larger manufacturers of home movie equipment are, by national advertising, awakening an appreciation on the part of the public to the advantages of this new art. It is now up to radio dealers to turn this desire into cold, hard cash."

## Expenses, 29.5% Profit, 8.2%

(Continued from page 60)

picture of actual conditions. We believe the tendency to *know* costs in order to *control* them is decidedly on the increase amongst retailers, which is a healthy sign.

*Other Costs*, which includes the miscellaneous items not otherwise specified, shows an increase from 2.9 per cent to 4 per cent, due to the inclusion of some large individual amounts upon the part of the larger stores. When we disregard these particular amounts we find that this item has actually declined. This division of expense is not emphasized because it is so vague that it is difficult to draw any worthwhile conclusions from it. After all, it is largely a *balancing* division, and while the percentage of the whole is high the reason has been given.

Throwing out the few large individual stores we find the percentage to be 2.2 per cent for 1928 as against 2.9 per cent for 1926.

All in all, the showing is a healthy one—much better than will be found in many other industries. The need for further watchfulness and control of expenses if these would be reduced, is however, quite obvious. Herein lies the key to greater profits.

Next month we will examine certain specific cases—hand-picked instances of dealers who have made an unusually good showing—or who have lost money. We will show the why and how of these operations.

Watch for the November issue.

### Costs Analyzed According to *Amount* of Business Done

Classification	Average Gross Sales Dollars	Average Cost of M'dse. Dollars	Average Gross Margin		Average Operating Cost		Average Net Profit		Occupancy %	Selling %	Admin-istrat'n %	Publicity %	Serv-icing %	Other Costs %
			Dollars	%	Dollars	%	Dollars	%						
<b>Group A</b> 22 Stores grossing \$100,000 or over per annum	190,671	116,015	74,656	39.2	58,946	32.2	15,709	12.1	5.0	12.9	2.9	3.3	1.2	5.6
<b>Group B</b> 25 Stores between \$100,000 and \$50,000	69,033	43,850	25,183	36.6	19,327	35.7	5,100	13.5	4.1	12.7	5.7	3.8	1.8	1.8
<b>Group C</b> 62 Stores less than \$50,000 yearly	20,862	13,614	7,248	35.8	5,685	36.8	1,705	12.2	4.5	10.0	6.0	2.7	1.9	1.7
<b>Total Averages All Groups</b>	66,183	41,287	24,966	37.7	19,564	29.5	5,402	8.2	4.7	12.0	4.1	3.3	1.5	3.9

### A Suggested Code of Business Practices

**F**OLLOWING a study of radio dealers' methods of doing business, the Federated Radio Trade Association suggests the following business code as fair to customer and dealer alike, and in keeping with good practices common in other businesses:

1. That, prospective customers shall be allowed a free trial or home demonstration for 48 hours.

2. That, an adequate interest charge be made on all time payment contracts and that contracts do not extend beyond one year. These are standard practices in all other forms of time payment selling.

3. That, when an outside aerial must be put up when a set is installed a charge of \$7.50 be made to meet the cost of labor and materials.

That, when an inside aerial must be put up when a set is installed a charge of \$5 be made to meet the cost of labor and materials.

That, when no aerial is necessary but when ground connection, lead-ins, etc., must be checked at least

\$2 be charged to meet the cost of labor expended.

4. That, no free servicing be given after 60 days or after the certain number of calls specified at the time of sale.

5. That, if the free service period has expired a minimum service charge of \$2 be made. If the call is of half hour or more duration, that a specified rate per hour plus cost of material be charged.

6. That, truth in advertising must be observed to preserve the good reputation of the individual dealer and the entire trade and that the Code of Ethics of the National Better Business Bureau on radio advertising be followed.

7. That, the allowance on instruments offered for trade-in, be based only on their fair cash market value.

8. That, no sets be guaranteed for longer than 90 days unless the manufacturers' guarantee is for a longer time.

9. That, instruments for trade-in be confined to radio equipment and musical instruments.

# Phonograph-Record "BEST SELLERS"

Recorded selections that recently have been in greatest demand or that are recommended to dealers by leading record manufacturers as "safe bets."

## Brunswick

- 4400 I'm in Seventh Heaven—From "Say It With Songs" as sung by Al Jolson  
Little Pal
- 4401 Why Can't You?—From "Say It With Songs" as sung by Al Jolson  
Used to You
- 4402 One Sweet Kiss—From "Say It With Songs"  
Liza—"Show Girl" Al Jolson
- 4445 Am I Blue?—From "On With the Show"  
Moanin' Low—"The Little Show," Libby Holman
- 4507 There's Too Many Eyes (That Wanna Make Eyes at Two Pretty Eyes I Love)—Ben Bernie and his Orch. with vocal chorus  
Satisfied
- 4510 Wait for the Happy Ending—"Anderson's Almanac"  
Can't We Be Friends—"Little Show" Red Nichols and His Five Pennies
- 4516 Bigger and Better Than Ever—"Scandals"  
Bottoms Up—Ben Bernie and His Orch. with Chorus
- 4503 Bigger and Better Than Ever—"Scandals"  
Bottoms Up—Frances Williams and Orch.
- 4506 I May Be Wrong (But I Think You're Wonderful)—"Murray Anderson's Almanac"  
Can't We Be Friends—"Little Show" Libby Holman
- 4500 I May Be Wrong (But I Think You're Wonderful)—"Murray Anderson's Almanac"  
The New Yorkers—"Red Nichols"

## Victor

- 22037-A Piccolo Pete—Ted Weem's Orchestra  
B Here We Are
- 22004-A Am I Blue?—Shilkret & Victor Orchestra  
B Let Me Have My Dreams
- 22047-A Moanin' Low—Reisman's Orchestra  
B Ain't Misbehavin'
- 22043-A Wedding of the Painted Doll—Victor Salon Orchestra  
B Pagan Love Song
- 22067-A I Lift Up My Finger, etc.—Hylton's Orchestra  
B Laughing Marionette
- 22072-A Blue Yodel No. 5—Jimmie Rodgers  
B I'm Sorry We Met
- 22062-A Pretending—Vallee's Yankees  
B Where Are You? Dream Girl
- 22089-A True Blue Lou—Pollack's Orchestra  
B The Flippity Flop—Coon Sanders' Orchestra
- 21961-A Breakaway—Olsen's Music  
B Big City Blues
- 22029-A Heigh-Ho Everybody—Vallee's Yankees  
B Miss You

## Columbia

- 1888-D I Get the Blues When It Rains  
Kids Again—Guy Lombardo & His Royal Canadians
- 1916-D I Love You  
Lewisada Blues—Ted Lewis & His Band
- 1929-D Foolishments  
Essau Buck—Two Black Crows
- 1877-D Little Pal  
Seventh Heaven—Paul Whiteman and His Orchestra
- 1900-D Am I Blue?  
My Song of the Nile—Ben Selvin and His Orchestra
- 1883-D I Want to Meander in the Meadow  
Now I'm in Love—Ruth Etting
- 1927-D Why Did You?  
You Belong to Me—Guy Lombardo and His Royal Canadians
- 1907-D Hang on to Me  
Just You, Just Me—Ukulele Ike
- 1837-D Am I Blue?  
Birmingham Bertha—Ethel Waters

## Edison

(Needle Releases)

- 14066 Sergeant Flagg and Sergeant Quirt—Billy Murray and Walter Scanlan  
If I Give Up the Saxophone—"Whoopee"—Jack Dalton and Seven Blue Babies
- 14056 Tip-Toe Thru the Tulips  
In the Hush of the Night—Mel Morris and His Piccadilly Players
- 14055 Singin' in the Rain—B. A. Rolfe and His Orchestra  
Some Day You'll Realize You're Wrong—California Ramblers
- 14058 Waiting at the End of the Road  
One Sweet Kiss—Phil Spitalny's Music
- 14051 Pagan Love Song  
Theme Song Waltzettes—Jack Stillman's Orchestra
- 14012 Am I Blue?  
Birmingham Bertha—B. A. Rolfe and His Lucky Strike Orchestra
- 14016 Heigh-Ho! Ev'rybody, Heigh-Ho!—The Seven Blue Babies  
Wedding of the Painted Doll—California Ramblers
- 14033 True Blue Lou  
The Flippity Flop—B. A. Rolfe and His Lucky Strike Orchestra
- 14049 Liza (All the Clouds'll Roll Away)  
Do What You Do—B. A. Rolfe and His Lucky Strike Dance Orchestra
- 14031 Painting the Clouds With Sunshine  
Sweet Madelon—Billy Murray and Walter Scanlan

## "The A B C of Television"

A new volume on television addressed to the amateur experimenter, has just been published by the Norman W. Henley Publishing Company, 2 W. 45th St., New York. It is a comprehensive volume of 210 pages with 78 illustrations. The author, Raymond Francis Yates, devotes practically all of his space to fundamental information on television and the elements comprising the typical television systems rather than to "how to make it" material. He treats with characteristic simplicity of style and clearness of presentation, the functions of photoelectric cells, neon tubes, scanning discs and synchronization systems in a manner which will be useful to the experimenter regardless of the future de-

velopment of television. His last two chapters are devoted to constructional data of both a transmitter and a receiver. The receiver is adequately described and is of conventional unsynchronized type.

Mr. Yates has had the good sense to look forward to considerable further development in the television art because he concentrates on principles and the functioning of the elements of television systems rather than upon present day assemblies as they have been demonstrated to the public. Apparently, he realizes that these are but steps in the evolution of the ultimate television device which will be sufficiently simple, practical and reliable to be worthy of interest outside of the professional laboratory.

The radio dealer who has anticipated a forthcoming market for television parts

will realize from a reading of this book that the art is yet far too crude for general exploitation and, on the other hand, that a simple fundamental development is likely to change its character with a rapid sweep of development.

The conclusion is inescapable that television has reached only that stage of development corresponding to the period in the history of radio communication just preceding the availability of the first practical vacuum tubes. When a correspondingly important discovery is made in the television field, but slight revision of the fundamental materials which Mr. Yates has expounded will make this book immediately practical to a host of experimenters waiting to seize upon the new art as did their predecessors in the days when broadcasting succeeded wireless telegraphy.

*Cash in on the  
argument that  
clinches the sale—*

# "PRICE"!

**C**OMPARE the Freed line, model by model, with the other best sellers in Radio.

You will agree that in ear appeal and eye appeal the Freed gives all that Radio has to offer. So will your prospective customers, because extensive national newspaper Advertising and coast to coast Broadcasting are constantly creating acceptance for Freed Quality and Outstanding Freed Value.

Then comes the final sales argument which appeals to every man or woman—"Price." In every price-class there is a Freed model, selling from a few to a good many dollars below other makes of anything like equal quality.

Ask the local Freed distributor if he has a franchise open—or write us.

FREED-EISEMANN RADIO CORPORATION  
122 East 42nd STREET - - - NEW YORK CITY

## \$172.50

*(less tubes)*

MODEL NR-79

8-Tube NEUTRODYNE for house-current operation. Push-Pull amplification. Four tuning condensers. Uses 245 type tubes for richness of overtone reproduction. Electro-Dynamic Speaker. Self-enclosed Highboy Console of Walnut veneer.

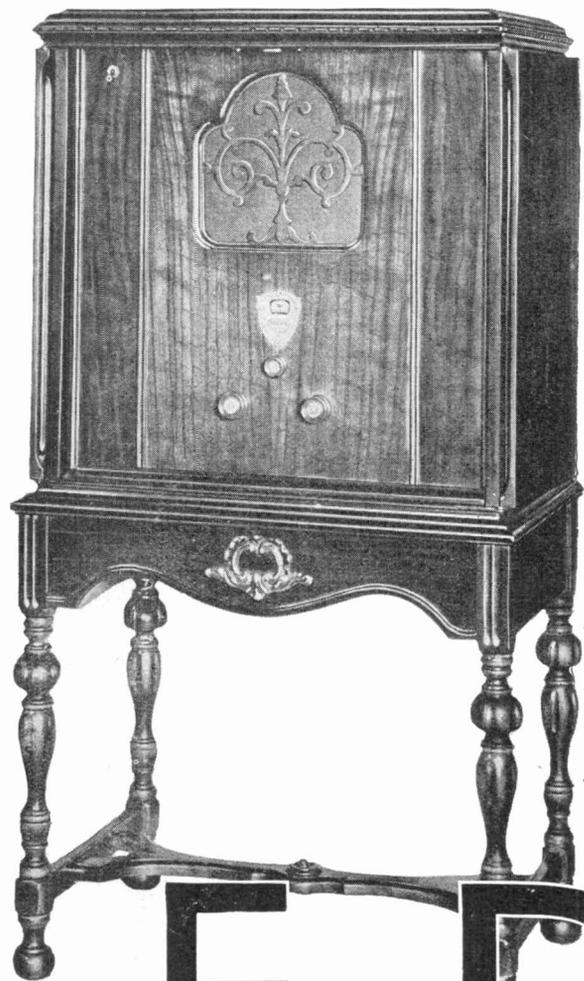
PRICE RANGE, \$99.50 to \$225  
*(Prices slightly higher in Canada)*

*See Our Exhibit*

at the

EIGHTH ANNUAL CHICAGO RADIO SHOW  
Coliseum, Chicago

October 21st to 27th, inclusive  
Booth No. 3—Section D.



# F R E E D

## R A D I O

# Timetable of Principal Evening Chain Programs

Use this chart in tuning in for demonstrations—A timetable of morning and afternoon programs will be published next month

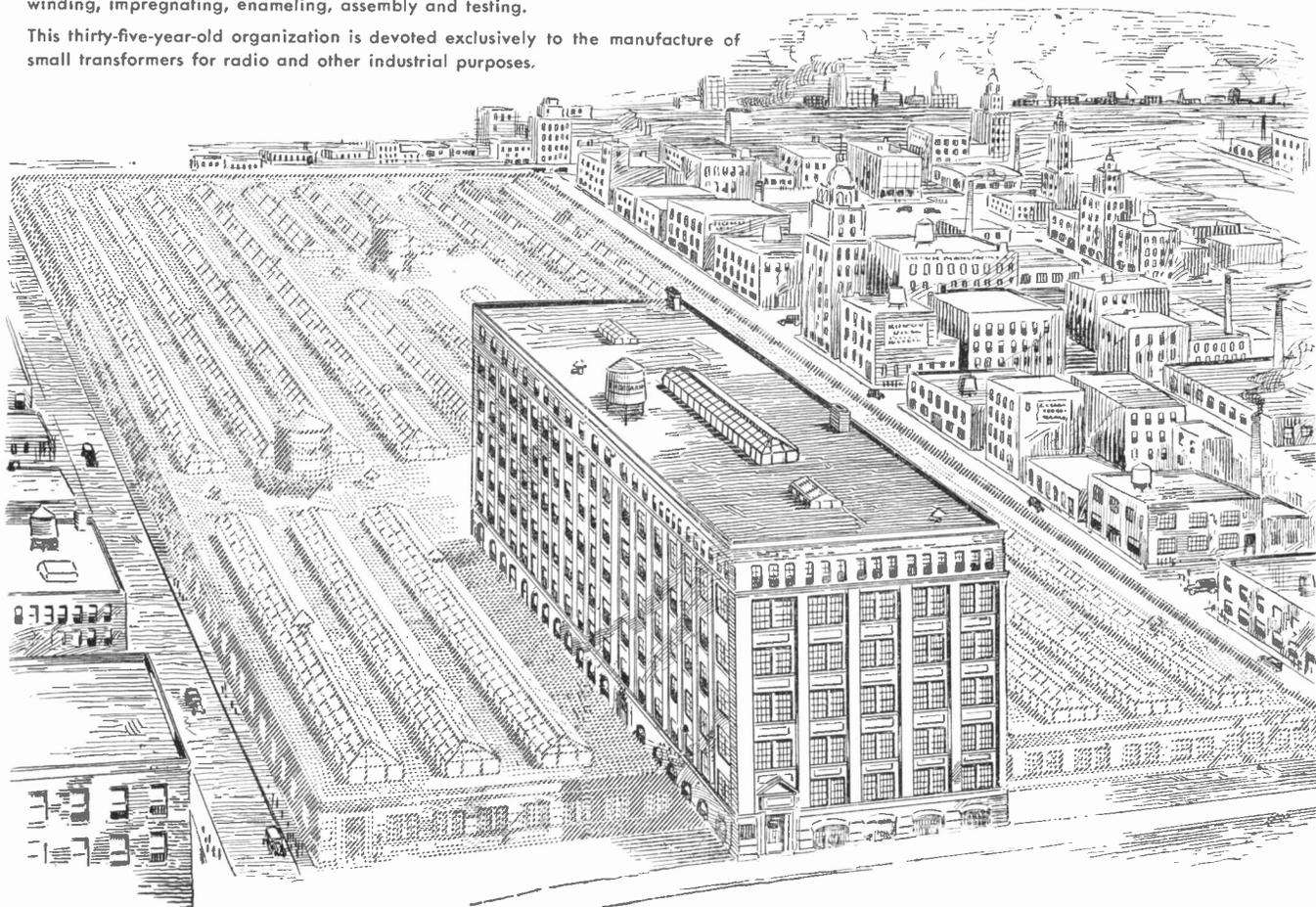
	Chain	6:00 P.M.	6:30	7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30
SUNDAY	NBC (WEAF)	Echoes of the Orient	Maestro's Hour	Old Comp'y Sonalogue	Major Bowes' Family Party	Major Bowes' Family Party	Chase and Sanborn Orch	9:15 Atwater Kent	9:45 Retold Tales	10:15 Studebaker Champions	10:45 Seth Parker's
	NBC (WJZ)	5:30 Twilight Reveries	Whittall Anglo-Persians	Rosalie Wolfe Philip Steele	Baldwin	Enna-Jettick 8:15 Collier's	Collier's Radio Hour	9:15 D'Orsay, Paris	9:45 Fuller Man	10:15 Astrid Fjelde	10:45
	Columbia	Fox Fur Trappers	Our R'm'n't'e Ancestors	Littmann's Entertainers	French Trio	La Palina Rhapsodizers	Sonatron Program	Majestic Hour	Majestic Hour	Arabesque	Around the Samovar
	NBC (PACIFIC)	Studebaker Champions			7:45 Enna-Jettick						
MONDAY	NBC (WEAF)	Black and Gold Room Orchestra	Black and Gold Room Orchestra	Buck and Wing	Piano Twins	Voice of Firestone	A. & P. Gypsies	A. & P. Gypsies	General Motors	General Motors	Floyd Gibbons
	NBC (WJZ)	Mormon Tabernacle Choir	Palais d'Or Orchestra	Moment Musical	Roxy	Roxy Con't.	White House Concert	Edison Program	Chesebrough Real Folks	Cabin Nights	Empire Builders
	Columbia			Columbia Ensemble	Littmann's Entertainers	8:15 U.S.A. Band	CeCo Couriers	Physical Culture	Grand Opera	Country Club	Night Club
	NBC (PACIFIC)	Neapolitan Nights	Floyd Gibbons	Hornick's Music	Starr and Curtis	Seiger's Symphonies	Seiger's Symphonies	Voice of Firestone	Plantation Echoes	Slumber Hour	Slumber Hour
TUESDAY	NBC (WEAF)	Black and Gold Room Orchestra	Black and Gold Room Orchestra	Roads of The Sky	Soconyland Sketches	Michelin Men	Prophylactic Program	Eveready Hour	Eveready (Continued)	Cliquot Club Eskimos	Radio-Keith-Orpheum Hour
	NBC (WJZ)	Old Man Sunshine	Savannah Liners' Orchestra	Jeddo Highlanders	Lew White 7:45 Polly Preston	Pure Oil Band	Around the World with Libby	Johnson and Johnson	Dutch Masters Minstrels	Williams Oilomatics	C. A. Earl Orchestra
	Columbia	Show Folks	Alice Foote McDougall Hour	Ohrbach's Gypsies	Governor Clinton Orchestra	United Symphony Orchestra	Flying Stories	Old Gold-Whiteman	Old Gold-Whiteman	Fada Orchestra	Story in a Song
	NBC (PACIFIC)	Cliquot Club Eskimos	C. A. Earl Orchestra	R.K.O. Hour	R.-K.-O. Hour	Tales Never Told	Tales Never Told	Parker Duofold		Spotlight Review	Spotlight Review
WEDNESDAY	NBC (WEAF)	Black and Gold Room Orchestra	Black and Gold Room Orchestra	United Synagogue Service	Golden Gems	Mobiloil Concert	Happy Wonder Bakers	Ingram Shavers	Palmolive Hour	Palmolive (Continued)	National Grand Opera
	NBC (WJZ)	New Yorker Hotel Orch.	New Yorker Hotel Orch.	Twilight Melodies	J.B. Kennedy Talk	Yeast Foamers	Sylvania Foresters		40 Fathom Trawlers	A.B.A. Voyagers	Stromberg-Carlson
	Columbia			Diamond Entertainers	Sach's Furniture			M'Fadden Hour	La Palina Smoker	Kolster Hour	Dixie Echoes
	NBC (PACIFIC)	Palmolive Hour	Stromberg-Carlson Program	7:15 National Light Opera	National Light Opera	Roads to Romance	Hill-Billy Boys			Cotton-Blossom Minstrels	Cotton-Blossom Minstrels
THURSDAY	NBC (WEAF)	Black and Gold Room Orchestra	Black and Gold Room Orchestra	Mid-Week Federation Hymn Sing	Coward Shoe Hour	Fleischmann Sunshine Hour	Fleischmann (Continued)	Seiberling Singers	Jack Frost's Melody Moments	Halsey Stuart Program	Victor Program
	NBC (WJZ)	Old Man Sunshine	Park Central Orchestra		United Reproducers Program	Lehn and Fink		Veedol Program	Maxwell House	Atwater Kent	Atwater Kent (Continued)
	Columbia		Civic Repertory	Rundback's Orchestra	Fires of Men	Health Builders			Gold Seal Hour	Temple Hour	Washington Forum
	NBC (PACIFIC)	Halsey's Stuart			Standard Symphonies	Standard Symphonies	Kylectroneers	Memory Lane	Phileo Hour	Slumber Hour	Slumber Hour
FRIDAY	NBC (WEAF)	Black and Gold Room Orchestra	Raybestos Twins	Eternal Question	Broadway Lights	Cities Service Orchestra	Cities Service (Continued)	Evening in Paris	Schrader-town Band	Stars of Melody	Mystery House
	NBC (WJZ)	Smith Ballew's Orchestra	Smith Ballew's Orchestra	Mallory Hatters	Dixie's Circus	Triadors	8:45 Famous Lovers	Interwoven Pair	Phileo Hour	Armstrong Quakers	Armour Program
	Columbia		Littmann's Entertainers			Russian Village	Wahl Penmen	True Story Hour	True Story Hour	Bremer Tully Hour	Jesse Crawford
	NBC (PACIFIC)	Stars of Melody	Armour Program	Arriola & Kent	Arriola & Kent	RCA Hour	RCA Hour			Two Troupers	The Nomads
SATURDAY	NBC (WEAF)	Black and Gold Room Orchestra	Black and Gold Room Orchestra	Phil Spitalny's Music	Phil Spitalny's Music	Lyric Challengers		General Electric	General Electric	Lucky Strike	Lucky Strike
	NBC (WJZ)	Gold Spot Orchestra	Gold Spot Orchestra	St. Regis Hotel Orch.		Chicago Celebrities	Marvin Musicians	The Cub Reporter		Radio Guild	Radio Guild
	Columbia		Ambassador Orchestra		Littmann's Entertainers	The Nit Wits	Babson on Finance	"Graybar 'Joe & Vi'"	Gulbransen Hour	Paramount Publix Hr.	Paramount-Publix Hr.
	NBC (PACIFIC)	Lucky Strike Hour	Lucky Strike Hour	Nights in Spain	Nights in Spain	Temple of the Air	Golden Legend	Golden Legend		The Troubadors	The Troubadors

In first column at left, NBC-WEAF indicates the National Broadcasting Company chain with WEAF as key station. NBC-WJZ indicates the chain of which WJZ is the key station.

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The Thordarson factory is more than an assembly plant, as it takes in all phases of transformer manufacturing, including engineering, core and case stamping, coil winding, impregnating, enameling, assembly and testing.

This thirty-five-year-old organization is devoted exclusively to the manufacture of small transformers for radio and other industrial purposes.



**I**f the Thordarson factory were housed in a one-story building, it would cover three and one-half city blocks.

This immense plant occupies an entire building, six stories and basement, one block long and a half block wide—making by far the largest radio transformer factory in the world.

# THORDARSON

*Transformer Specialists Since 1895*

**THORDARSON ELECTRIC MANUFACTURING CO.**

Huron, Kingsbury and Larabee Streets, Chicago, Ill., U. S. A.



# Keeping in touch with RADIO MANUFACTURING



## New Rail Rates

This month new railroad rates to the Pacific Coast, estimated to save approximately \$200 on each car of radio products shipped, will become effective, according to a report from the RMA Traffic Department, headed by Chairman B. J. Grigsby. A supplement to the present classification rates on shipments to the West Coast will be published by the carriers, it is stated, effecting substantial savings. The traffic services of the association are to be enlarged, and the Traffic Department now has under investigation several other items in connection with railroad rates in which reductions are being sought with considerable hope of success.

## Use of Mails Denied to Promoters of "Earth Antenna"

From the National Better Business Bureau, Inc., we understand that a postal fraud order was issued on July 2, 1929, against the Modern Antenna Company; Earth Antenna; Underground Aerial Products; Underground Aerial Systems; Perfection Antenna Company; R. Charles Curtis, salesman, and their officers and agents as such at Chicago, Ill.

The following typical claims were made in the advertising of this device:

"Reduces static—Gives better tone."

"Snapping, crackling, humming interferences caused by induction from other antenna, power lines, car lines, etc., reduced."

"Radio experts endorse it."

"Latest step in radio progress."

"It is probably one of the most important improvements offered set owners. It is called the earth antenna."

The evidence showed that this was a scheme to obtain money through the mails by means of false and fraudulent pretenses, representations and promises.

The fraud order was signed by Walter F. Brown, Post Master General.

## Vreeland Issued Patent

An additional patent on the Vreeland band receiving system, which is said to solve many perplexing problems of faithful tone reproduction in radio receiving sets, has been issued to Dr. Frederick K. Vreeland, according to an announcement just made by the Vreeland Corporation, 140 Cedar St., New York City. The new patent, No. 1,725,433, covers the "band selector."

"The much discussed patent situation, regarding the Vreeland system, sometimes loosely referred to as a 'band pass filter,'" stated Dr. Vreeland, "has been clarified by the issue of this new patent which covers the band selector in its broader aspects."

## Nickel Shortage

With all the talk about overproduction of sets and shortage of tubes, has anyone given a thought to the available supply of raw materials that go into radio products? According to very authentic sources there

faces the tube manufacturers a serious shortage of nickel. It seems to be the system of the producers of nickel to allot certain industries a certain percentage of their total production.

Either the needs of the radio industry have been very much underestimated or the radio industry has again expanded very greatly. In any case, so long as there is a shortage, it would seem a logical move for the tube industry as a whole to get together with the nickel industry in order that the latter may know what the needs will be from now on. It might save some embarrassment and loss later on.

## New British Wavelengths

Station	Old Wave-length (meters)	New Wave-length (meters)
Daventry 5 XX.	1,562.5	1,553
Manchester.....	378.3	479
Daventry 5 GB..	482.3	399
Glasgow.....	401.1	377
London 1.....	358	356
London 2.....	.....	.....
Cardiff.....	323.2	310
Aberdeen.....	311.2	301
Bradford.....	294.1	288.5
Bournemouth..	.....	.....
Dundee.....	.....	.....
Edinburgh.....	.....	.....
Hull.....	.....	.....
Liverpool.....	288.5	288.5
Plymouth.....	.....	.....
Sheffield.....	.....	.....
Stoke.....	.....	.....
Swansea.....	.....	.....
Newcastle.....	243.9	261
Belfast.....	302.7	242
Leeds.....	258.6	200

## Ten-Fold Increase in Metallized Filament Since 1927

During 1928 approximately 700,000 feet or 133 miles of metallized resistance filament was employed by licensees of the International Resistance Company, in the United States and Europe, according to the statement of Francis R. Ehle, its president. This quantity of metallized filament was quite aside from the amount used by the company itself in the production of its own Durham resistors.

"During 1929," states Mr. Ehle, "we anticipate an actual sale to our licensees in the United States, England and Germany, of some 2,500,000 feet, or about 470 miles of metallized filament. Our own metallized resistor requirements will call for something like 1,000,000 feet of filament, or sufficient to make up some 5,000,000 resistors."

"The enormous increase is due largely to the tremendous expansion of the radio industry, and also to our more recent contacts with the talking picture, electrical sound recording, photo-electric cell work, aviation, and general electrical activities, all of which call for precise resistors. We have been obliged to expand our produc-

tion facilities considerably in order to cope with this great demand. Although our products are essentially laboratory products, we have succeeded in making them conform with mass production methods. At the same time, due to the standardization of mass production methods, standardizing in a higher quality product."

## Screen-Grid Set Defined by NEMA

As a result of a formal request made by the National Better Business Bureau to Louis B. F. Raycroft, vice-president of the National Electrical Manufacturers Association, a definition of "screen-grid radio receivers" has been worked out for the use of the former organization in maintaining watch on unethical or misleading advertising.

The following tentative definition has therefore been formulated:

"A radio receiver designed to utilize not less than two screen-grid tubes in tuned radio frequency circuits may be properly classified as a screen-grid receiver."

## Westinghouse Develops New Metal

Development of a new metal known as "Konel," which is credited with being much stronger than other metals at high temperatures and which can be used extensively in the moving parts of internal combustion engines and other extremely hot places, has been announced by officials of the Westinghouse Electric and Manufacturing Company. The announcement followed the granting of foreign patent rights.

Originally developed by the Westinghouse Research Laboratories as a substitute for platinum in the manufacture of filaments for radio tubes, the new metal was discovered to be harder to forge than steel, and to be very tough at high temperatures, when most metals lose their strength.

The new metal was created by Dr. E. F. Lowry, a graduate of Ohio State University. As a substitute of platinum, Westinghouse officials are authority for the statement that Konel already is saving approximately \$250,000 monthly in the manufacture of radio tubes.

Platinum costs approximately \$180 per ounce, while the new substance costs only a few dollars a pound. Life of Konel filaments is approximately ten times longer than other filaments. Tubes with filaments made of the new metal are operated 175 degrees colder than tubes with platinum filaments but with the same emission, thereby giving better reception results, research engineers say.

## Any Questions?

If any of our manufacturer friends have problems they would like to have discussed in this department, we shall be very glad to hear of them. Let us hear from you.

H. W. BAUKAT.

# 151,000

## RECEIVING SETS

*Per Month*

Are Regularly  
Equipped  
with



**PRODUCTS**

•

**Power Packs**

**Audio Transformers**

**Chokes • Dynamic Speakers**



**TRANSFORMER CORPORATION OF AMERICA**  
2301-2319 South Keeler Avenue • • Chicago, Illinois



# What every Radio Dealer should know about his tube business

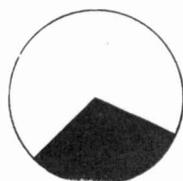
By J. J. Steinharter

President, Cable Radio Tube Corporation

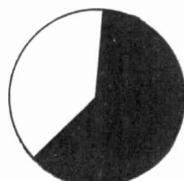
**I**N 1927, 30,000 dealers sold 33,662,247 tubes—an average of 1123 tubes per dealer.

In 1928, 31,000 dealers sold 61,552,846 tubes—an average of 1985 tubes per dealer.

In 1929, 39,000 dealers will sell 100,000,000—an average of 2564 tubes per dealer!



1927 sales  
33,662,247



1928 sales  
61,552,846



1929 sales  
100,000,000 (estimated)

(Courtesy "Radio Broadcast")

The tube business is growing—more sets, more tubes per set, new type tubes, more tube sales per dealer. Are you getting your share?

Of course, half the story is in the line you carry.

#### IS IT A QUALITY LINE?

SPEED tubes are triple-tested, first quality tubes, made by a company making tubes since 1924. SPEED executives served an apprenticeship of over 20 years in incandescent lamp manufacture.

#### IS IT A COMPLETE LINE?

SPEED Tubes include types 201A, 199, X140, WD11, WD12, 200AA, 112A, 171A, 171AC, 245, 210A, 250, 226, 227, 280, 281, 224AC.

#### IS IT A PROGRESSIVE LINE?

SPEED had a 224AC type in 1928. SPEED'S 227 has been perfected to heat in 5 seconds—by test. SPEED adopted solid carbonized plates months ago.

SPEED'S new manufacturing equipment is the very latest and best. SPEED raw materials are A1.

#### IS IT A WELL-ADVERTISED LINE?

SPEED Tubes are advertised in full pages in the Saturday Evening Post . . . in all the leading trade and fan radio magazines . . . in great newspapers from coast to coast . . . with direct mail, counter cards, window displays and every dealer help.



J. J. STEINHARTER

#### IS IT A PROFIT LINE?

SPEED'S Quality makes for satisfaction, sales and re-sales. SPEED'S return policy is most liberal. SPEED'S discounts are right. SPEED is the tube for profit.

**REMEMBER 100,000,000 TUBES THIS YEAR!**

Get your share—handle the right line—franchises are going fast.

As we say in consumer advertising—

**"STEP RIGHT UP AND CALL FOR SPEED"**



**CABLE RADIO TUBE CORPORATION**

84-90 N. NINTH ST., BROOKLYN, N. Y.

**MAKERS OF RADIO TUBES**

**SINCE 1924**



# THE ACHIEVEMENT OF THE HOUR!

▲▲▲▲ this Modern Radio-Phonograph Combination ▲▲▲▲ offered for the price of a radio alone ▲▲

AS EVERY alert dealer well knows, SENTINEL has gained nation-wide recognition as a name that stands for really good radio—sensibly priced! Following Sentinel's enthusiastic acceptance at the R. M. A. Trade Show, backed by an avalanche of orders from all over the country, the demand for this astonishing line has tested the production capacity of the makers . . . has exceeded the supply.

Right now, every modern home is a "live" prospect for the excellent Sentinel combination . . . which Dealers are able to offer profitably at a price usually asked for a radio alone. There's a tremendous market waiting for you . . . quick sales, rapid turnover, real profit!

## Nationally Advertised Screen Grid Radio

Sentinel advertising is now appearing consistently each month in *The Saturday Evening Post* . . . reaching 3,000,000 prospective buyers for you, influencing many others . . . creating actual demand right in your store . . . so wire us today for your first shipment. Sample orders are being filled as received—we will give your order our special attention. Get your share of these profits!

"You're Safe with a Sentinel!"

SENTINEL MANUFACTURING COMPANY  
9715 Cottage Grove Avenue, Chicago, Ill.  
Division of United Air Cleaner Company



\$149<sup>50</sup>  
LIST PRICE  
Less Tubes

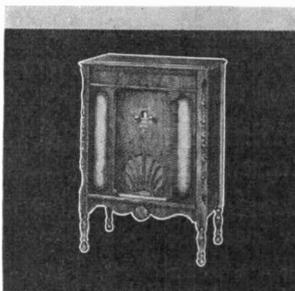
Model No. 646-C

This marvelous combination has an ultra-modern nine tube radio, using 4 screen grid tubes plus the new 227 tubes and two 245 tubes in push-pull, and famous Quam Dynamic Speaker . . . electric phonograph of course uses the same radio circuit and speaker, the United Electric Motor, and United Pick-Up. cabinet finish similar to Model 666 described below. Your sales of this combination will be tremendous.

Prices are slightly higher in Colorado and the West

Model No. 444

An ultra-modern screen grid set, with rich five-ply walnut cabinet and two-tone maple overlay. Modern and attractive in every detail, and equipped with the Famous Quam Dynamic Speaker.



\$89<sup>50</sup>  
LIST PRICE  
LESS TUBES



\$99<sup>50</sup>  
LIST PRICE  
LESS TUBES

Model No. 666

A splendid nine tube set, using 4 screen grid tubes plus the new 227 tubes and two 245 tubes in push-pull . . . a handsome five-ply walnut cabinet with two-tone maple overlay . . . and equipped with the famous Quam Dynamic Speaker!

Every important part of Sentinel Radio is made right in our own plant.



**Making Good Tubes Better**

**will always be our Policy...**

# VAN HORNE

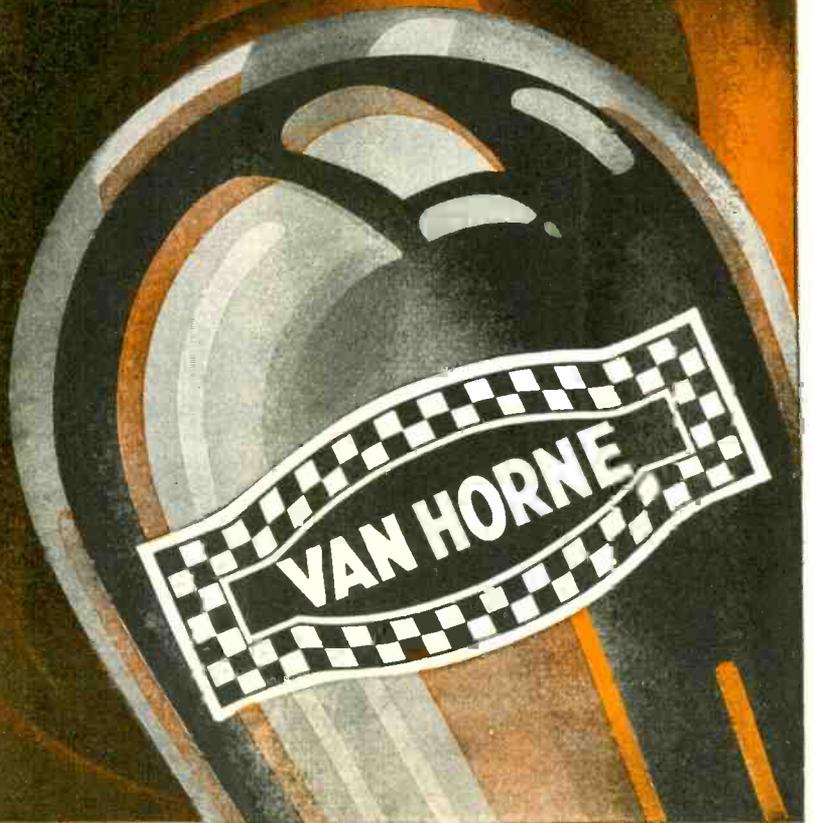
## *Radio Tubes*

*Quality for 15 Years*

**I**N the haste of making deliveries we will not sacrifice quality to quantity. Quality will never be discarded in a last minute rush to increase volume. For 15 years the name Van Horne has stood high in the manufacture of vacuum tubes. Two generations work in our factories; master craftsmen with years of experience. That is why Van Horne tubes never vary in uniformity...and we enjoy what is undoubtedly the lowest replacement ratio in the industry.

Van Horne production will always be sufficient to protect dealers against a shortage. Our distribution has been limited. Our factories have grown more than 500 per cent in the past year and our production many times that amount. Still, Van Horne is making good radio tubes better. If you are a dealer or distributor who believes in quality look into the Van Horne proposition. Write the VAN HORNE TUBE CO., FRANKLIN, OHIO.

All Van Horne Tubes, including the new screen-grid tubes, are manufactured under exclusive Van Horne patents.



**Sales Figures *prove***  
**that the whole country**  
**was waiting for . . . . .**

# Kylectron




**L**AST month we told you about the tremendous enthusiasm aroused by Peerless and Courier Radios equipped with Kylectron. We told you how people everywhere were *talking* Kylectron—how dealers were looking forward to a big season with these fast-selling lines.

But now we can tell you that the public acceptance of these two marvelous radios is *more* than a burst of enthusiasm. People are doing *more* than just *talk* about these radios equip-

ped with Kylectron. *They're buying them.* They're buying them in such large numbers that there can no longer be the least doubt that Kylectron gives to radio exactly what the radio-buying public has been waiting for.

Our sales figures for last month were far and away beyond our expectations. And that's the final proof. Kylectron is going over *big*. Now you can be sure that Peerless and Courier Radios equipped with Kylectron offer you the fast-selling, big-profit opportunity that we prophesied a few months ago.

***The following pages***  
***show how Kylectron is being put across***



# and Courier Radios

**equipped with Kylectron**

**are breaking all sales records**

Look at this set-up from the standpoint of a radio dealer. In the first place, here's everything the public wants and expects to get in a fine radio. Add to that a feature found on no other radio made today — Kylectron, the greatest and most sensational development since the first tube set.

But that's only *half* the story. We're not contented merely to make a fine product for you to sell. *We help you sell it!* We give you newspaper advertising *concentrated* in your territory. We give you the benefit of radio broadcasting by some of the most popular entertainers in the country. Smashing out-door displays are at your disposal to direct people to your store. Window displays, store displays, direct mail literature, standard and special selling helps of every

description are prepared for your use. We're leaving *nothing* undone that will help you to sell Peerless and Courier Radios equipped with Kylectron.

Now is it any wonder Kylectron is going over big? Is it any wonder dealers are breaking all sales records with Peerless and Courier Radios? You couldn't *want* any better proposition than is offered by the finest of radios — brand new, exclusive features — vigorous advertising — generous selling cooperation.

There isn't room here to give you *all* the details of our dealer proposition — our generous selling plan. Get in touch with your distributor or with us direct. But do it *now*. Don't let a few days delay cut you out of this valuable franchise. Write, wire or phone *today*.



## **The Courier Radio**

Here's value that *shows*. Screen grid of course, three tubes; power detection; selectivity that delights the most critical — distance that will bring joy to the "DX fans" — tone that *everyone* will enjoy. Equipped with Kylectron. Certainly the radio "shopper" will never find another such value.

**Peerless and Courier Radios are products of**

**UNITED  
REPRODUCERS CORPORATION**  
Springfield, Ohio

**Full license protection under RCA, Hazeltine and Meissner patents and applications**

# A NEW IDEA IN

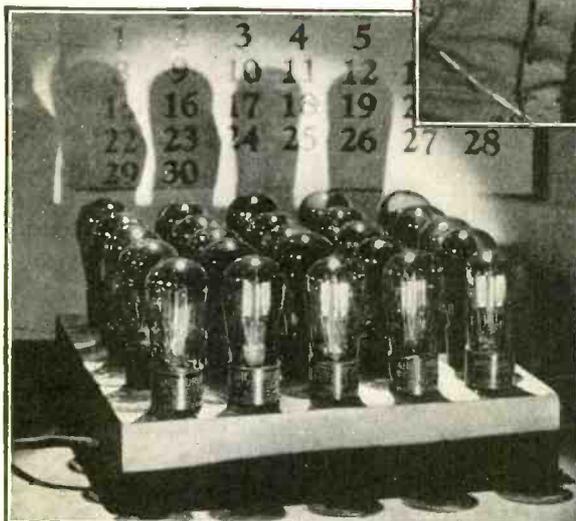
**THESE INTERESTING TUBE TESTS ARE FEATURED IN ARCTURUS SATURDAY EVENING POST ADVERTISING**



There's no question about Arcturus' 7-second action when your customer holds the watch.



Arcturus Tubes hold the world's record for long life because they withstand the line surge that burns out other tubes. Show your customers that Arcturus Tubes easily withstand 75% more current than they are designed for.



A two-minute demonstration of Arcturus' clear, humless tone is more convincing than a twenty-minute sales talk.

# ARC BLUE



# SELLING TUBES

## THAT MEANS MORE PROFITS FOR EVERY ARCTURUS DEALER

**T**HE more Arcturus Tubes you sell, the better for your business.

And the best way to sell these superior tubes is to demonstrate their many good points.

Our National Advertising Campaign, beginning with a half page in the October 26th Saturday Evening Post, tells radio set owners to *make sure* of tube performance before they buy tubes. We tell them what points to check, and how to check them. And Arcturus Dealers will be glad to make these tests, because Arcturus performance measures up to the highest standards at every point.

These photographs, reproduced from our Saturday Evening Post advertising, illustrate three easy tube tests that clinch sales. *Show* your customers what Arcturus Blue Tubes can do, and watch your tube sales jump.

When your Arcturus sales go up your customers get better reception and your service overhead goes down.

Try selling Arcturus *Blue* A-C Tubes this way, and see what happens to your tube and set sales.

ARCTURUS RADIO TUBE COMPANY  
Newark, N. J.



**137**  
**FACTORY**  
**INSPECTIONS**  
**GUARD**  
**ARCTURUS**  
**QUALITY**

# TURUS

**A-C**  
**LONG-LIFE**

# TUBES





### The Dealer Salesman

*the most important link in merchandising*  
CONTACT WITH THE PUBLIC

# KENNEDY RADIO



Dealer Salesmen Quickly See  
The Unusual Advantages of Selling  
**KENNEDY**  
THE ROYALTY OF RADIO

EVERY time you demonstrate a Kennedy you enjoy that unusual confidence which is more than half the sale!... You have the advantage of the pride and prestige always associated with "The Royalty of Radio" ... You show cabinetry that is the elegance of taste expressed in wood ... You have the option of selling either the Kennedy High-gain Neutrodyne or the Power Detection Screen-Grid Models, each fully utilizing every known advance in radio science ... You feel the supreme satisfaction of seeing your customers thrill to the LIFETONE of Kennedy—the tone that surpasses reproduction because it is *life itself!*... Add to this the backing of a most elaborate and complete merchandising campaign and you have the expression of Kennedy's appreciation of the real enthusiasm shown by thousands of Kennedy Dealer Salesmen throughout the country... Colin B. Kennedy Corporation, South Bend, Indiana.

Royal Model 310 (Neutrodyne) \$182. Royal Model 320 (Screen-Grid) \$189. Royal Model 210 (Neutrodyne) \$152. Royal Model 220 (Screen-Grid) \$159. Less Tubes.

**KENNEDY**  
**RADIO**

**TEST WITH**

**ACCURACY**

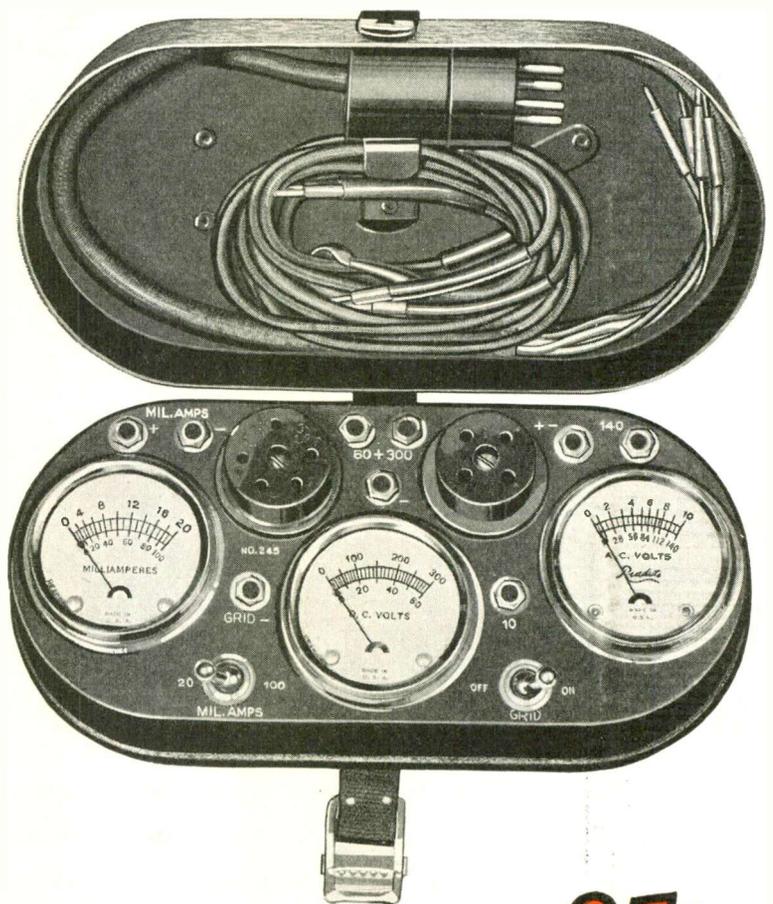
*The* **NEW 3-METER**

MODEL 245

**SET AND TUBE  
TESTER**

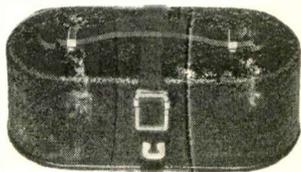
*Tests Screen-Grid*

Particularly designed for the new sets using the 245 power tube. Tests are made by inserting plug in socket from which tube has been removed. Extra cords and tip jacks permit the use of meters individually. Checks line voltage. Strong seamless metal cover. Beautiful baked enamel finish. Leather handle. Simple. Accurate. Supremely practical.



NET **\$12**

*Your jobber can supply you. If ordered direct, remittance must accompany order.*



**Readrite**

ESTABLISHED  
1904

**READRITE METER WORKS, 6 College Ave., BLUFFTON, OHIO**

# This Message Covers America



More than  
4200 full color, 24 sheet posters  
in 460 cities and towns, in 40 states!

Think of the effect of this huge billboard campaign on your sales. It starts next month! ▲ ▲ No matter where your store is located it is sure to be near or in some trading center where your customers will see these posters. This posting is one of the forms of advertising to be used to help De Forest dealers. ▲ ▲ Make this campaign your campaign. Make it work for you day and night. Identify your store as De Forest headquarters in your neighborhood by utilizing the large array of window material and dealer helps. ▲ ▲ If you haven't already had the money-making De Forest dealer proposition outlined to you, write to us at once and we will place you in touch with the De Forest jobber in your territory.

DE FOREST RADIO COMPANY, JERSEY CITY, N. J.

Branch Offices located in

Boston	Atlanta	Minneapolis	Denver	Detroit
New York	Pittsburgh	St. Louis	Los Angeles	Dallas
Philadelphia	Chicago	Kansas City	Seattle	Cleveland

*de Forest*  
**AUDIONS**

# Check these money-making Values *against* any radio cabinets in America!

The reasons why the WOOD CABINET CORPORATION has become one of the greatest factors in the Radio Cabinet Business are illustrated and described in "GENERAL" Radio Cabinets shown in this advertisement.

Check each one of these models. Check its construction and prices. Analyze its VALUE and let your own experience and knowledge of radio cabinets be your guide.

The phenomenal values presented in this great line is entirely due to the fact that this nation-wide organization sells only direct from factory to dealer. All middleman profits, shipping, handling and selling expenses are eliminated. Prices are NET to you.

Cabinets to fit all standard make sets, including Atwater Kent and the new Crosley Screen-grid receiver. Speaker brackets supplied with all models for Atwater Kent chassis.

Order direct from factory-to-dealer headquarters—or write for descriptive literature describing and illustrating the complete "GENERAL" line.

*10% discount when purchased in quantities consisting of any assortment of models shown in our general catalog.*

*Cabinet designs by Hammarstrom  
Salesmen—Valuable Territory Still! Available*

**All prices  
are net...  
You decide  
your own  
profit!**

**Factory-to-dealer  
saves shipping  
costs and middle  
man profits..**

**YOU GET  
ALL THE**

*Profit!*



# WOOD CABINET

*T. J. Molloy, Pres.*

**196 Lexington Avenue, New York.**

**Model No. 103**

Dimensions, 43-in. H. x 25½-in. W. x 15½-in. D. Set Compartment, 10¾-in. x 24-in. x 12¼-in. Space for dials 12½-in.

**\$20.50**  
Net F.O.B.  
York, Pa.



**Model No. 101 (Right)**

Dimensions, 42-in. H. x 25¼-in. W. x 15½-in. D. Set Compartment, 10¾-in. x 22-in. x 14-in. Space for dials 11½-in.

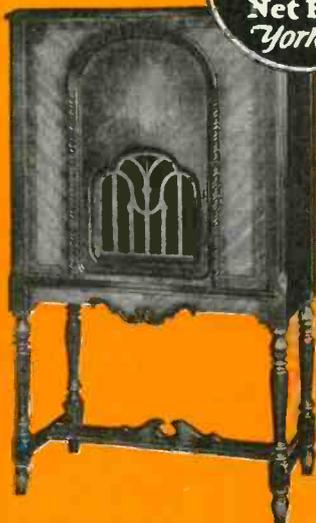
**\$16.50**  
Net F.O.B.  
Hanover, Pa.



**Model No. 301 (Below)**

Dimensions, 46¼-in. H. x 27½-in. W. x 15¼-in. D. Set Compartment, 11-in. x 24½-in. x 14-in. Space for dials 12½-in.

**\$16.50**  
Net F.O.B.  
York, Pa.



**\$13.50**  
Net F.O.B.  
Prila, Pa.



**Model No. 801 (Left)**

Dimensions, 40-in. H. x 25½-in. W. x 12¾-in. D. Set Compartment, 9¾-in. x 22-in. x 13-in. Space for dials 10¾-in.

**Model No. 401 (Right)**

Dimensions, 44-in. H. x 25¼-in. W. x 15-in. D. Set Compartment, 11½-in. x 24-in. x 13½-in. Space for dials 9-in.

**\$16.75**  
Net F.O.B.  
Jamestown, N.Y.



# CORPORATION

T. J. Molloy, Pres.

196 Lexington Avenue, New York

# 62%

## LIGHTER THAN IRON



CHAS. B. BOHN  
*The authority who developed Bohnalite*

# BOHNALITE

A thousand and one things flash by you during the course of a day. To pick and choose the advantageous products you can use in your business is a huge job. Possibly you have overlooked Bohnalite.

This new light alloy is a product you should investigate. If you use metal in any part of your product, familiarize yourself with Bohnalite.

It is 62% lighter than iron, but

**BOHN ALUMINUM & BRASS CORP., DETROIT, MICHIGAN**  
New York      Chicago      Philadelphia      Cleveland      Pittsburgh

with none of the disadvantages of the heavier metal.

Bohnalite has high uniform hardness—great density—fine grained structure—unusual strength—excellent bearing qualities—ductility and lightness.

Many of the foremost American manufacturers use Bohnalite in huge volume.

Send us your blue prints and samples for quotations and complete information.

**F**or real,  
*perfect,*  
**TROUBLE-FREE**  
*Dynamic*  
*reproduction*

**I**  
*Farrand*  
*Inductor*  
**DYNAMIC**

FARRAND MFG. CO., INC. • LONG ISLAND CITY • NEW YORK

---



# Again Belden Advertising in the Saturday Evening Post

Again this year millions of readers throughout the United States and Canada will see the story of Belden Radio Kits and Accessories in the Saturday Evening Post. The Belden Line is more complete than ever before—the high quality for which it is nationally known is being maintained.

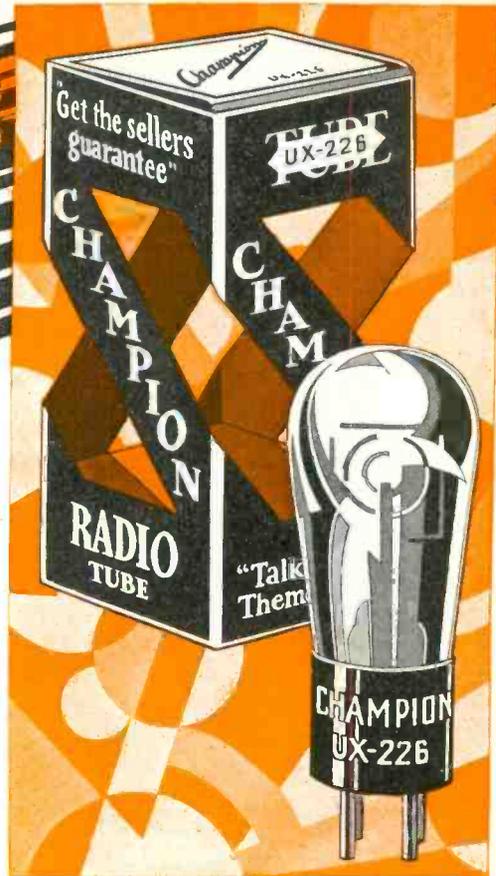
By pushing Belden Radio Kits and Accessories you can increase your sales volume and at the same time assure the best results from the radio sets you sell.

**Belden**  
Manufacturing  
Company  
2308-A S. Western Ave.  
Chicago  
U. S. A.



# THERE IS ONLY ONE CHAMPION

## CHAMPIONS FOR EVERY RADIO



Daily  
CHAMPION  
BROADCASTS:  
KDKA—Pittsburgh  
WBZA, WEEI, WNAC  
—Boston  
WBZ—Springfield  
KYW—Chicago

### WINNING, BECAUSE—

EQUIPMENT and Science join in creating Championship. Scientific problems concerning thirty years' lamp making, now evidence themselves in Champion Radio Tube quality — step by step, since the creation of the value of "vacuum," led to incandescent lamp perfection. ▲ The name Champion is representative of the individuals who created leadership. Time added to scientific experience, endorsed by unlimited capital, are reflected in your service of Champion Radio Tubes. ▲ Believing in those who perfected service to the public through the licensing of lamps, the same capital and scientific representatives join with the General Electric Company and Westinghouse Company in working for a combined license of the Radio Corporation of America and the Champion Radio Tube Works of Danvers, Massachusetts. ▲ Enjoy your radio set in patronizing dealers who are backed by licensing values offered by combining the greatest industrial units in Europe, as well as America. ▲ *Your local newspaper publicity gives you the details.*

### THE ONLY TUBE



### TESTED IN THE BOX

You know the Champion by its unique package. Each tube can be quickly tested without removal from the package. But, if the test alone is not enough, remember that every Champion is guaranteed to give perfect satisfaction to the user and any just claim by a Champion tube user will be promptly allowed.

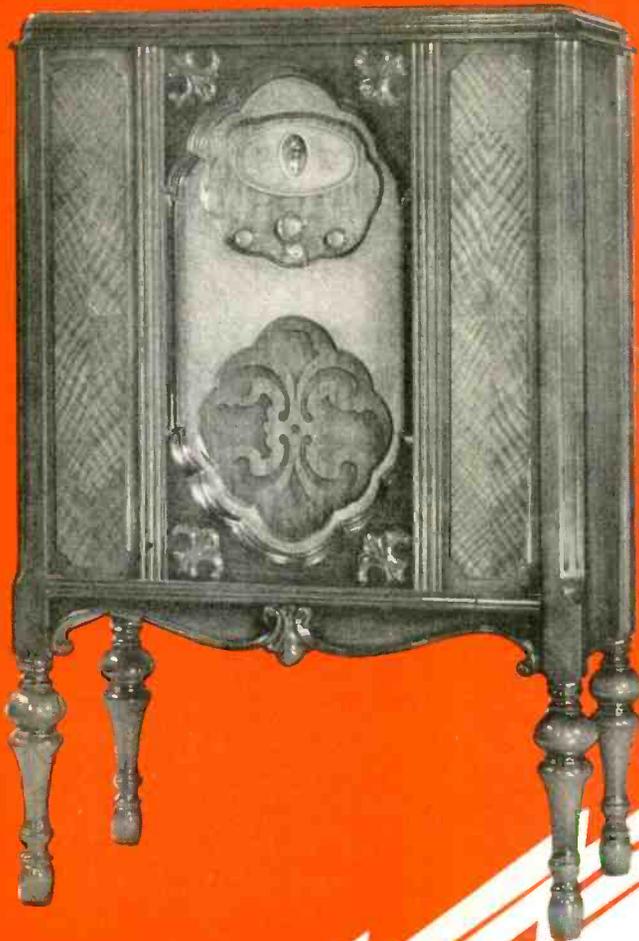
# Champion

LICENSED UNDER R.C.A. PATENTS

## RADIO TUBES



CHAMPION RADIO WORKS, INC., OF DANVERS, MASS.



### The Concert Grand Model 75

Striking new model, by the famous furniture designer, Edward Wuenn. Of unusually heavy, solid construction, the Concert Grand blends harmoniously with almost every period of interior decoration. The beautiful four-way matched butt walnut top, hand-rubbed and finished like the finest piano, is attractively set off by raised diamond-matched side panels of oriental walnut, which enclose the center panel of beautifully grained bird's-eye maple. Equipped with standard SILVER RADIO eight tube (4 screen grid) all-electric chassis and new ten-inch matched-impedance electro-dynamic speaker and overtone switch. Less tubes . . . . . \$173.00

All Prices Slightly Higher West of Rockies

# Silver



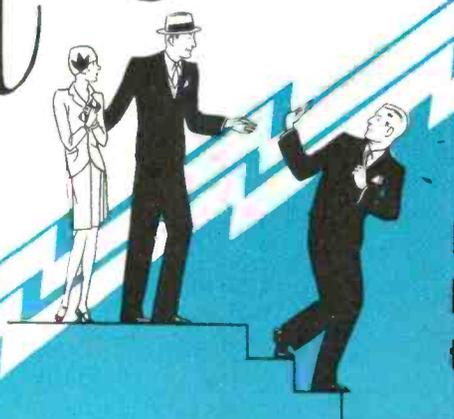
(At right) the popular Sheraton Lowboy, identical 8-tube screen-grid chassis, matched-impedance electro-dynamic speaker, overtone switch, less tubes . . . . . \$160.00



(Above) the dignified Sheraton Highboy, 8-tube standard chassis; 4 screen-grid tubes, matched-impedance dynamic speaker, overtone switch; less tubes . . \$195.00

SILVER · ON · RADIO · IS ·

# Radio



**"Shhh...  
I have to  
hide it in  
the Cellar!"**

**4**  
**Amazing Tests**

The Ice-pick Test

The Vanishing-aerial Test

The Hairpin Test

The Coin Test

THAT'S what a progressive radio dealer told his favored customers this summer.

He had to keep SILVER RADIO in the cellar! . . . because when he demonstrated it on his sales floor it made "back numbers" out of every other radio he carried. And as he had to clear his stock before the news of SILVER RADIO got all over town, he actually hid the superior SILVER RADIO in the cellar and only let the favored few down to see it . . . and hear it!

SILVER RADIO, product of the manufacturer who introduced screen-grid radio to America in 1927, is so good that it makes "back numbers" out of other radios.

For distance, SILVER RADIO is guaranteed to get more programs without an aerial than nine out of ten other radios can get with big interference-collecting antennas. SILVER RADIO—with only an ice-pick for an aerial—has received Chicago programs 2000 miles away in Los Angeles, and vice versa; SILVER RADIO owners in California fairly regularly hear Japan, Australia and New Zealand . . . programs from London and Prague have been heard across the Atlantic in a New York apartment!

In the present day hard-fought radio market, the safest bet is bound to be the set that can consistently out-perform the others. You can prove it with SILVER RADIO!

SILVER-MARSHALL, Inc., 6421 W. 65th St., Chicago

**LIKE · STERLING · ON · SILVER**

# Who knows the MERSHON CONDENSER



**R**ADIO ENGINEERS know the Mershon Condenser; for years they have known this marvelous device which has smoothed the way in the radio field toward the definite end of condenser trouble. . . . Acoustical engineers know the Mershon Condenser; know that it simplifies their problems and gives uniformly excellent results. . . .

Radio Manufacturers know the Mershon Condenser — they know it from the pocket-book angle, for the Mershon Condenser is most economical as well as most efficient. . . .

Radio Dealers know the Mershon Condenser. They know it without ever seeing it, for radio sets equipped with the Mershon never develop Condenser trouble. . . .

Wherever a smoothing condenser is necessary; wherever great capacity in small space, dependable service and economy are desirable; wherever you want a condenser free from trouble, self-healing in case of puncture, unaffected by atmospheric conditions . . .

*Ask Us How the Mershon Condenser  
Can Help Your Particular Problem*

Department RE  
**THE AMRAD CORPORATION**  
 Medford Hillside, Mass.  
**J. E. HAHN**  
 President  
**POWEL CROSLLEY, JR.**  
 Chairman of the Board

### National Advertising

AND

10,000,000 consumers know about the Mershon Condenser. In the leading weekly magazines in America they are learning through a powerful national advertising campaign that a radio set equipped with the Mershon Condenser *will not develop condenser trouble!* They are learning to ASK FOR A RADIO that contains the Mershon Condenser.





**There's a Rich and Juicy Market—**

**Ripe and Ready for STAR-RAIDER**



Star-Raider model RP-40 nine tube combination radio and phonograph. English Renaissance period cabinet of American Walnut using Imported English Pollard Oak, American Butt and Burl Walnut embellishments. Four record cabinets of hand tooled Italian leather. \$725.00 less tubes.

Star-Raider is unique. From \$435.00 to \$1,800.00 is the price range. The pick of the radio buying public is the market ... the people with the money in their purse and the eye and ear and appetite for good things.

Each model is made, regardless of cost, in the careful, custom manner ... finished with great attention to every detail ... and line tested for 12 hours.

The Technidyne Circuit and six R. F. stages plus Linear Power Detection give selectivity, sensitivity and tone that has never been equalled.

The Distributors and Dealers get such profits per sale, freedom from servicing, and stability of sale ... that have never been equalled.

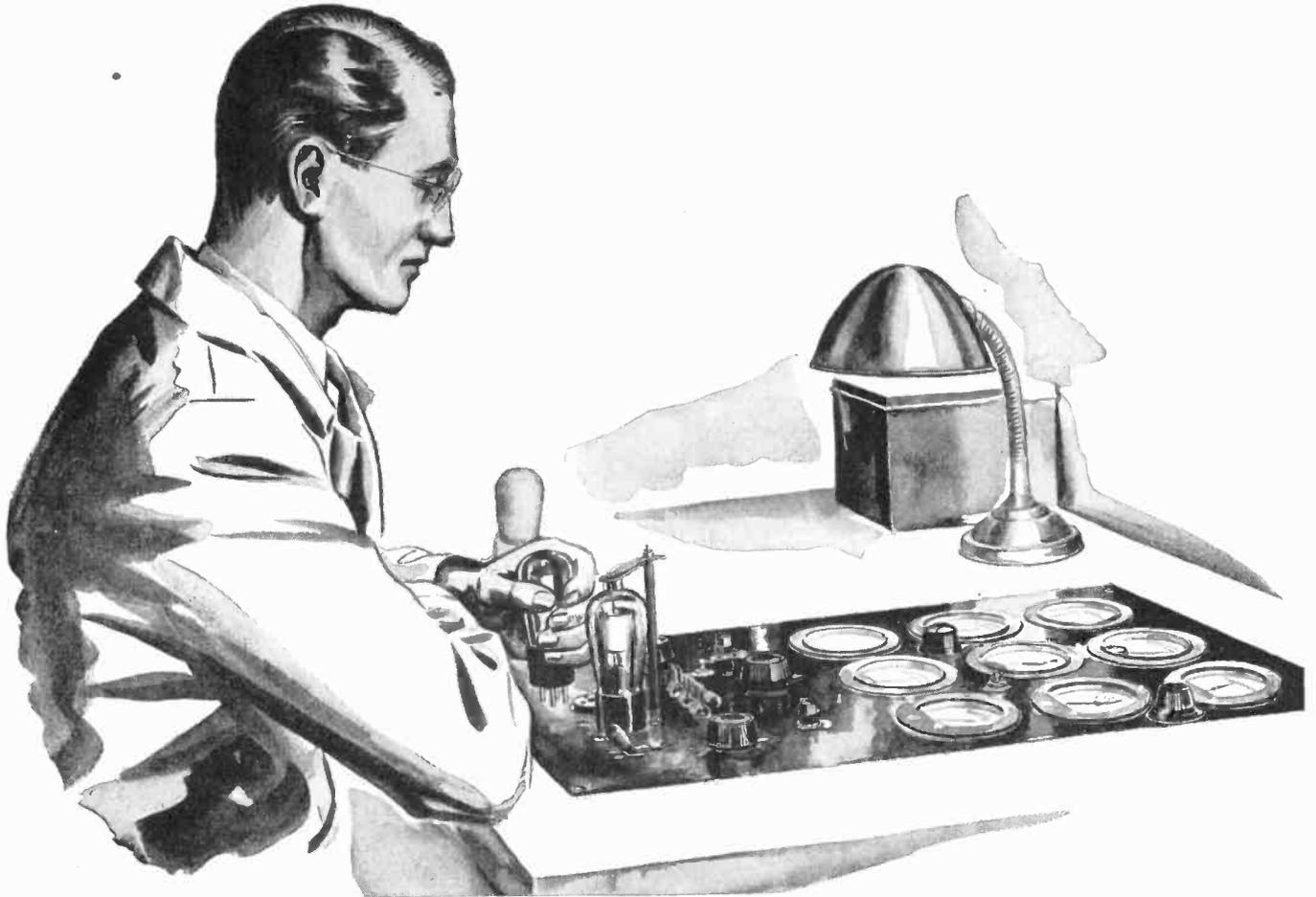
Yes sir. Star-Raider is an opportunity that comes but once in an industry's lifetime. And, it has come to stay from now on.

**CONTINENTAL RADIO CORPORATION**  
**FORT WAYNE, INDIANA**

*(Successor to The Single Radio Company)*

**the**  
**STAR-RAIDER RADIO**  
*America's Finest Radio Made Finer*

## RAY-O-VAC RADIO TUBES MAKE A GOOD PROGRAM BETTER



Each RAY-O-VAC TUBE is tested *for every physical characteristic* any radio tube can possess

Basically, there are ten significant characteristics . . . no more . . . for any radio tube—Ray-O-Vac or any other. Let us explain. A tube has three dimensions: length, breadth, thickness. A radio tube likewise has ten characteristics: filament voltage, filament current, emission current, plate voltage, plate current, plate resistance, grid voltage, grid current, mutual conductance, amplification factor. Call them by what name you will, that's all there are. Consequently there can be no more than ten significant tests.

There may be—and frequently are—dozens, yes scores, of routine mechanical inspections in the course of manufacturing a tube. There are, for example, more than a hundred rigid inspections in the manufacturing processes of a Ray-O-Vac Tube, besides life tests and inter-element capacity tests . . . *in addition to the ten basic tests for characteristics.*

These characteristic tests are a different matter. We developed and built our own test panels . . . designed their every feature, invented them as we worked.

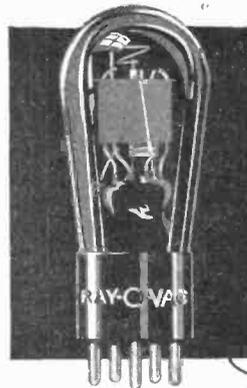
FRENCH BATTERY COMPANY,

A long row of testers sit at these panels, checking each Ray-O-Vac Tube as it comes through. Look over this one's shoulder at the array of dials—nine of them in bewildering array. He sets the tube into its socket, flips over switches, and there before his eyes is the unmistakable story of the individual tube. And any tube that doesn't measure up to proper requirements is instantly relegated to the waste basket.

So when you buy a Ray-O-Vac Tube you're not guessing. Neither are we. The tube you buy has told its story, in plain sight, to a sharp-eyed tester. It's been *tested . . . tested for every physical characteristic.*

You can sell *this* tube with every confidence. Tell your customers the Ten-Test story—it sells!

MADISON, WIS.



# RAY-O-VAC

Radio Tubes

*Guaranteed!*

# ERLA

SCREEN GRID RADIO

THE ERLA SCREEN GRID RECEIVER is an 8-tube set utilizing three 224 screen grid tubes, one 227 power detector tube, one 227 resistance coupled audio tube, two 245 power tubes in push-pull and one 280 rectifier tube.

CONSOLE MODELS in distinctive cabinets, priced from \$134.50 to \$189.50.

Manufactured under licenses of Radio Corporation of America.



Type 30  
Deluxe Model Console  
\$169.50 (less tubes)

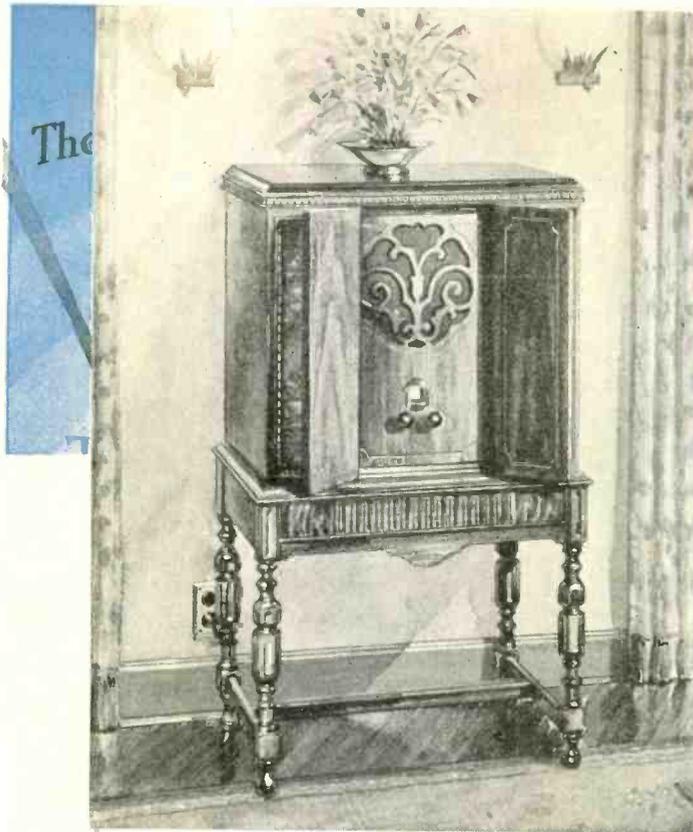
## TURNOVER IS ALL THAT COUNTS

This season there is an overproduction of claims, promises and gestures in radio. But too few receivers that will clear off the sales floor on sheer performance.

The Erla franchise stands on the ability of Erla merchandise to turnover more profitably than any other set anywhere near its price.

*Investigate for proof*

**ELECTRICAL RESEARCH LABORATORIES, Inc.**  
22nd at Paulina Street  
CHICAGO



The Future  
y!

The Set of the Future  
Now!

## The new Balkeit Radio

\$175.00

One of the most popular pieces of radio literature published this season is the Balkeit Blue Book of Radio Talent, listing the artists, orchestras and most interesting programs broadcasting from stations throughout the nation in such a way that they can be easily located by the radio listener. In addition to this outstanding feature the book includes complete radio log material and other items of particular value to the radio audience.

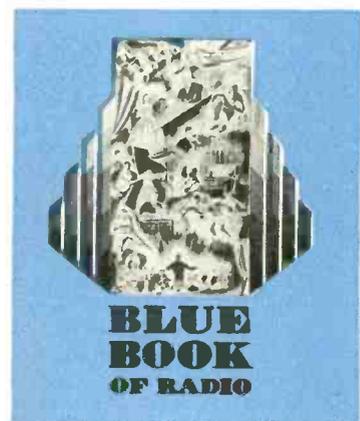
The Blue Book of Radio has already created for itself a nation-wide demand and will be soon in its second printing. Copies of this book are distributed to radio owners and prospects exclusively through Balkeit dealers.

**T**HE new Balkeit Radio, Model C, with its outstanding ability to perform on distant reception as the average set does on local, is radio merchandise of extraordinary selling appeal.

Five tuned stages and the special features of design which give this 9 tube super neutrodyne its remarkable selectivity and sensitivity place it, for performance, far above its price class.

In an attractive walnut console cabinet Balkeit Model C lists at \$175.00, less tubes (slightly higher west of the Rockies) and is backed by a direct dealer merchandising plan regarding which you should inform yourself at once.

**BALKEIT RADIO COMPANY**  
North Chicago, Illinois



*The Blue Book of Radio Talent*

# Balkeit Radio

*Model C*

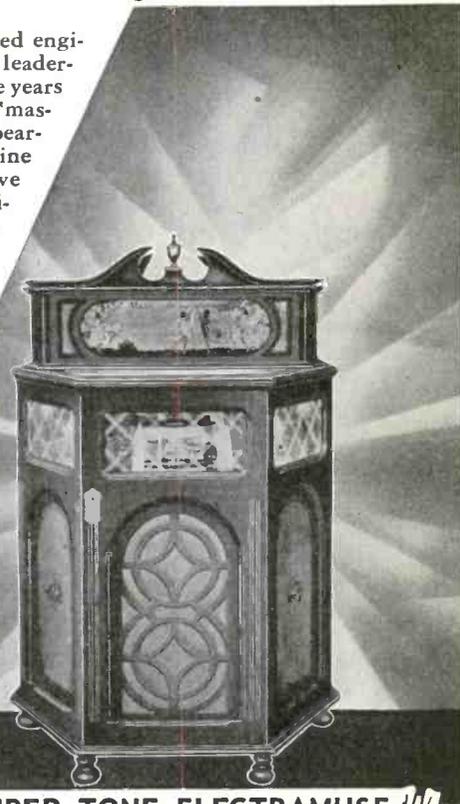
# Now YOU Can Make GREATER PROFITS Through These Big Improvements



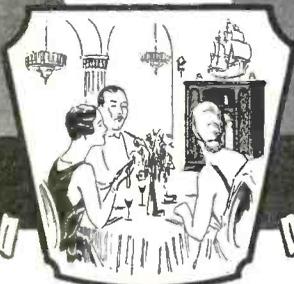
*New Features* recently developed by our skilled engineering staff give ELECTRAMUSE unquestioned leadership in this field. Ever since its introduction three years ago, ELECTRAMUSE has enjoyed the title of "master money-maker" because of its splendid appearance and unequalled performance. Now, in line with our policy of constant betterment, we announce a new and finer system of amplification which provides three stages of audio amplification matched with a powerful 10-inch electro-dynamic speaker. Volume is instantly adjustable and always true-toned, free from rattle or distortion. ELECTRAMUSE is superior throughout—the inside mechanism and wiring are marvels of simplicity, the cabinets are masterpieces, the tonal qualities amazing in their perfection.



• CLUB ELECTRAMUSE •



• SUPER-TONE ELECTRAMUSE •



EVERY DEALER knows that the easiest sales and biggest profits come in lines that are new and different and good. That's ELECTRAMUSE! It is a super attraction that earns big money in every community and therefore finds ready sale. YOU have hundreds of prospects all around you. We can help you close them with our modern merchandising plan—the result of 34 years' experience.

*Countless Prospects*—Think of all the places where this year-round MONEY MAKER can be sold (or profitably placed on a percentage basis)—restaurants, cafes, lunch rooms, drug stores, confectionaries, billiard parlors, bowling alleys, parks, resorts, waiting rooms, hotels, clubs, etc.

ELECTRAMUSE provides the world's finest music in coin-controlled instruments. At only a nickel a record, ELECTRAMUSE has an earning capacity of 90 cents per hour. At six hours per day, that is \$37.80 per week; \$1,965.00 per year. Operating costs practically nothing. Our record service sup-

## ELECTRAMUSE

THE WORLD'S FINEST CONTINUOUS-PLAYING AMPLIFIED MUSICAL INSTRUMENT

plies the latest hits at low cost. No mechanical attention—entirely automatic and fool-proof. Tap This New Vein of Gold—ELECTRAMUSE is a proven success in thousands of in-

stallations all over the country. Many operators have started with one or two—and added dozens later. A small investment and a convenient payment plan make ELECTRAMUSE easy for every dealer to sell. Valuable dealerships are available on ELECTRAMUSE in many splendid sales territories. YOU may be able to secure this profitable franchise if you act quickly. Use the coupon or telegraph.

GET THIS NOW  
**FREE!**

HOLCOMB & HOKE MFG. CO.  
Dept. 201, Indianapolis

Please send your valuable book on Big New Profits, compiled by merchandising experts. No obligation.

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



**HOLCOMB & HOKE MFG. CO.**  
INDIANAPOLIS, INDIANA, U. S. A.

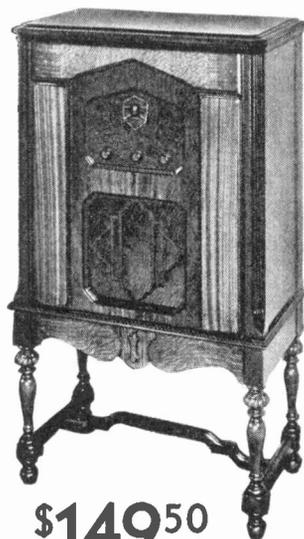
# ANOTHER SONORA TRIUMPH!

NEW in Conception  
NEW in Performance  
and...NEW in Price!

Designed and built entirely by SONORA

THE NEW

# SONORA RADIO

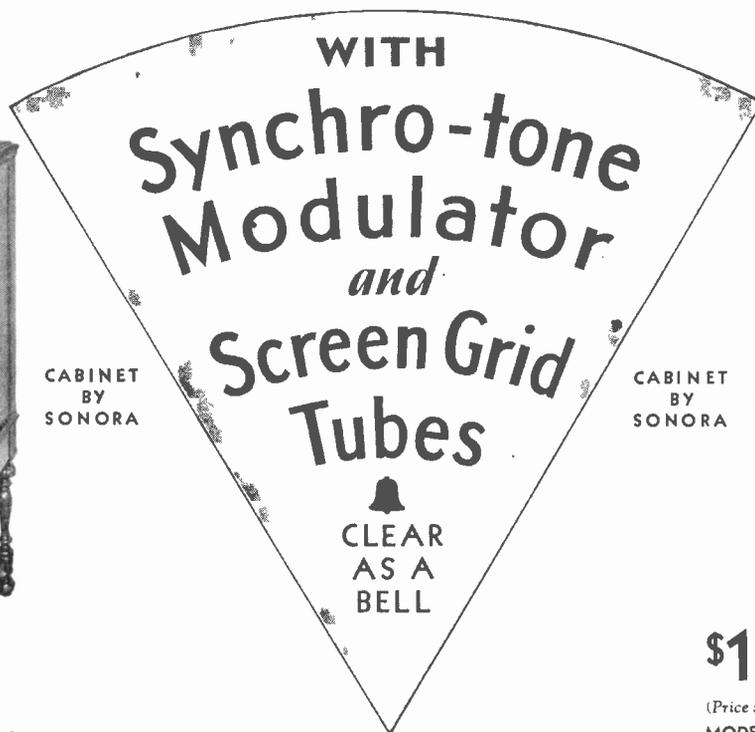


CABINET  
BY  
SONORA

**\$149<sup>50</sup>**  
less tubes

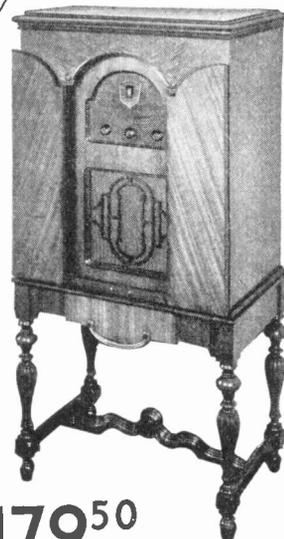
(Price slightly higher Denver west)

MODEL A-31, Lowboy. Three Screen-Grid tubes in three stages tuned R. F., Power detector, and one stage of Push-pull Audio. Synchro-tone Modulator. A pleasing cabinet of modified Gothic design paneled with rare specimens of Lace-wood and American Walnut. 110 volts, 60-cycle A. C. Available for other current supply. Dimensions: 44" High, 24" Wide, 13½" Deep.



**Sonora**  
CLEAR AS A BELL

A trade-mark of distinction that has been  
synonymous with fine music for 18 years.



CABINET  
BY  
SONORA

**\$179<sup>50</sup>**  
less tubes

(Price slightly higher Denver west)

MODEL A-33, Highboy. An attractive modified Colonial Period design built of such rare woods as Australian, African and American Walnut. French Chateau doors are of African Walnut. Chassis same as Model A-31. 110 volts, 60-cycle A. C. Available for other current supply. Dimensions: 48" High, 24¾" Wide, 15¼" Deep.

Also Sonora Radios and  
Melodion Combinations at  
prices ranging up to \$695.00.

**S**ONORA, which has been supreme for 18 years in the manufacture of sound-reproducing instruments, now offers the sensational New Sonora Radio.

Designed especially for operation with Screen-Grid tubes and equipped with the exclusive Sonora Synchro-tone Modulator — this New Sonora Radio reproduces perfectly every musical note "clear as a bell." Never has such music come from any radio.

For the first time, you can now offer this superior Sonora instrument—the product of Sonora craftsmen and backed

by the famous Sonora reputation — at popular prices! And, further: Sonora is a complete radio line you can handle exclusively — a line that successfully meets any competition.

The New Sonora is merchandised extensively and uniquely by spectacular advertising and sales promotion campaigns that unquestionably will make Sonora the biggest sales sensation in radio.

Responsible dealers interested in the profitable Sonora franchise are invited to write immediately.

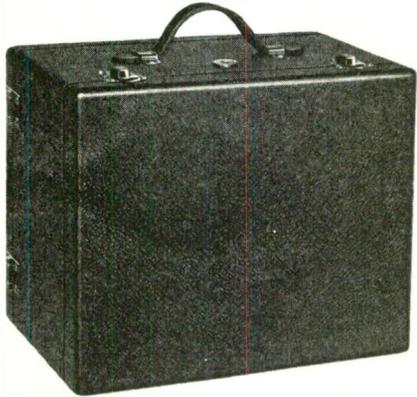
## SONORA PHONOGRAPH COMPANY, INC.

Main Offices: Sonora Building, 50 West 57th Street, New York City  
Factories: Buffalo, N.Y.; Saginaw, Mich.; Bridgeburg, Ont., Canada

(Licensed under patents of Radio Corporation of America and Canadian Radio Patents, Ltd.)

# TRAV-LER

## PORTABLE RADIO RECEIVERS



No larger than  
an overnight bag ★

A self-contained radio receiver with loud speaker and loop. Permits the enjoyment of radio in trains, automobiles, on outings, in the office, or in hotel rooms.

---

Performance to be compared only with far  
larger and more expensive receivers ★ ★

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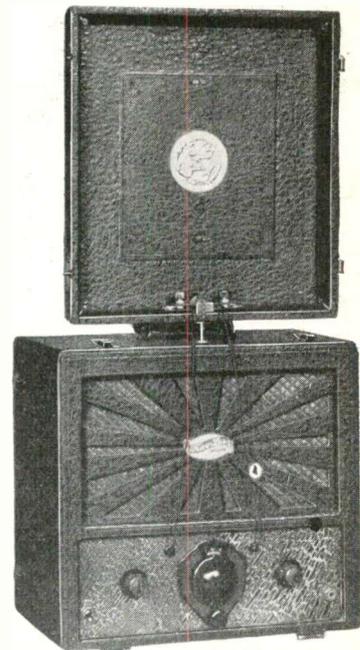
The new Trav-Ler shielded circuit employing a screen grid and a power tube in the last audio stage gives these new sets a performance in range, tone excellence, and volume that has set entirely new standards for receivers of this type.

For battery, AC or DC 110 volt current operation. All instantly interchangeable.

A test will convince you that these new models have greatly extended the market for portable receivers.

This profitable line does not interfere with your present sale of standard sized receivers.

Write today for literature and our dealer or jobber proposition.



★ . . . and weighs but little more. The Standard Model complete with Batteries or an AC or DC power pack weighs only 27 pounds.

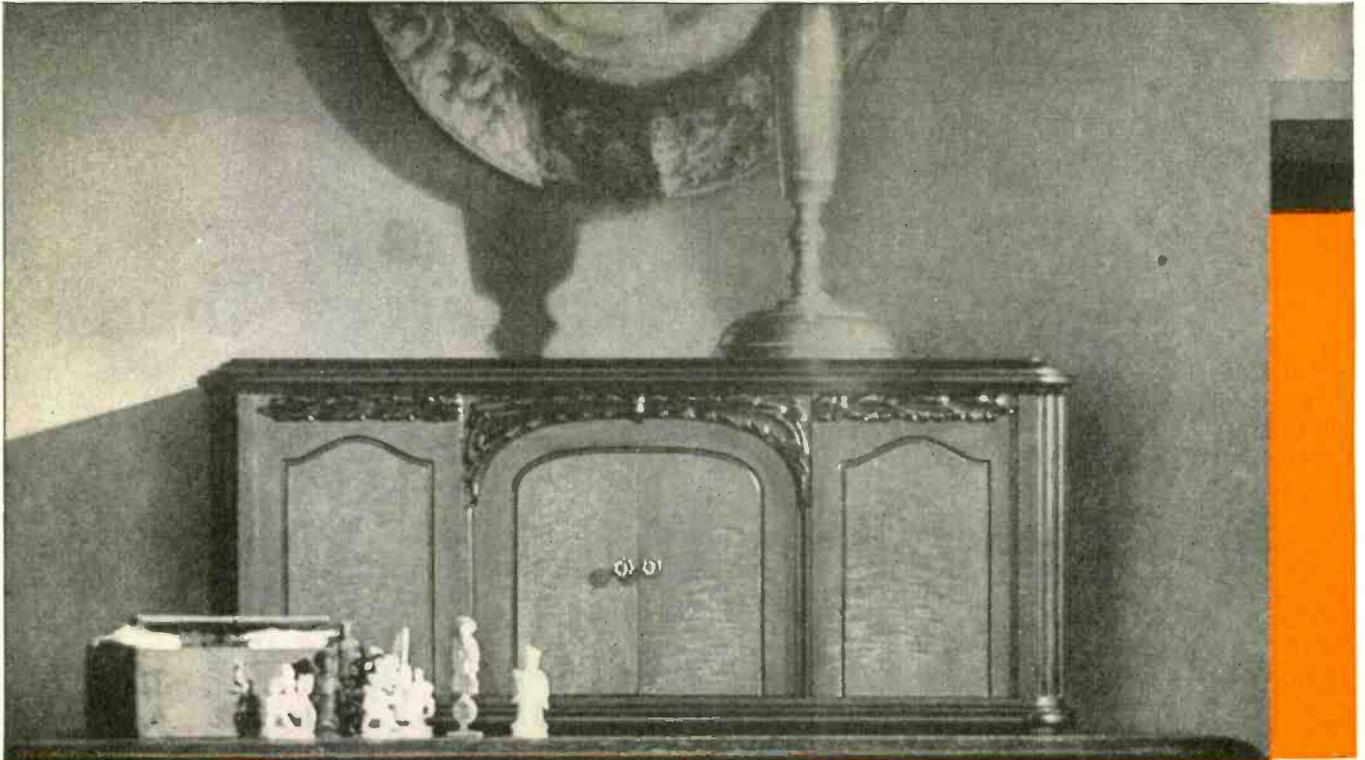


★ ★ . . . and with the advantage of instant portability. A special type of cone speaker is used in the two larger models.

Eastern Sales Office  
New York City

TRAV-LER MANUFACTURING CORP'N  
Factory and General Offices  
1818 Washington Avenue  
St. Louis, Mo.

Western Sales Office  
Chicago, Ill.



# SCREEN-GRID BOSCH RADIO



Dealers find it easy to sell the Screen-Grid Bosch Radio.

Perfectly balanced in every detail—its superior performance in any test for clarity—tone—distance — selectivity — sensitivity and operating simplicity makes volume business a certainty.

Bosch Radio is correctly engineered to the new Screen-Grid tubes—it fully expresses every advantage that these new and improved tubes give to radio.

Bosch Radio is priced right and Bosch cabinets have an artistry that is a strong sales help.

The Bosch franchise is based on a fair and square policy of merchandising—with an attractive flexibility of investment.

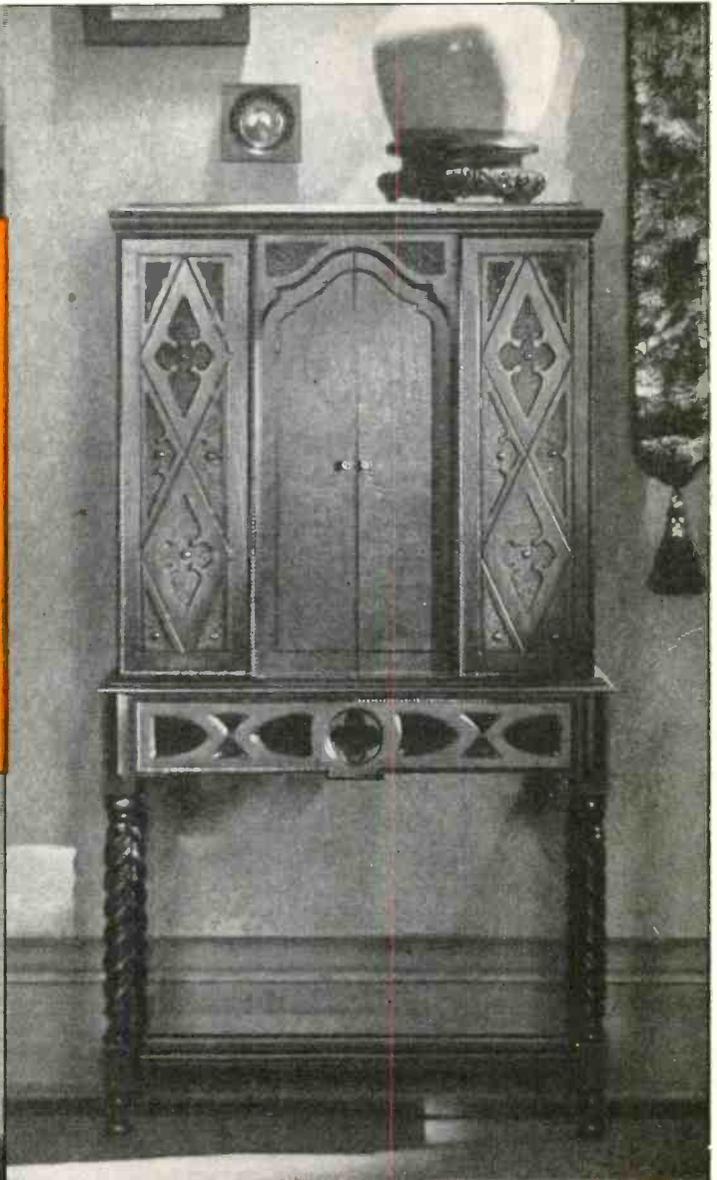
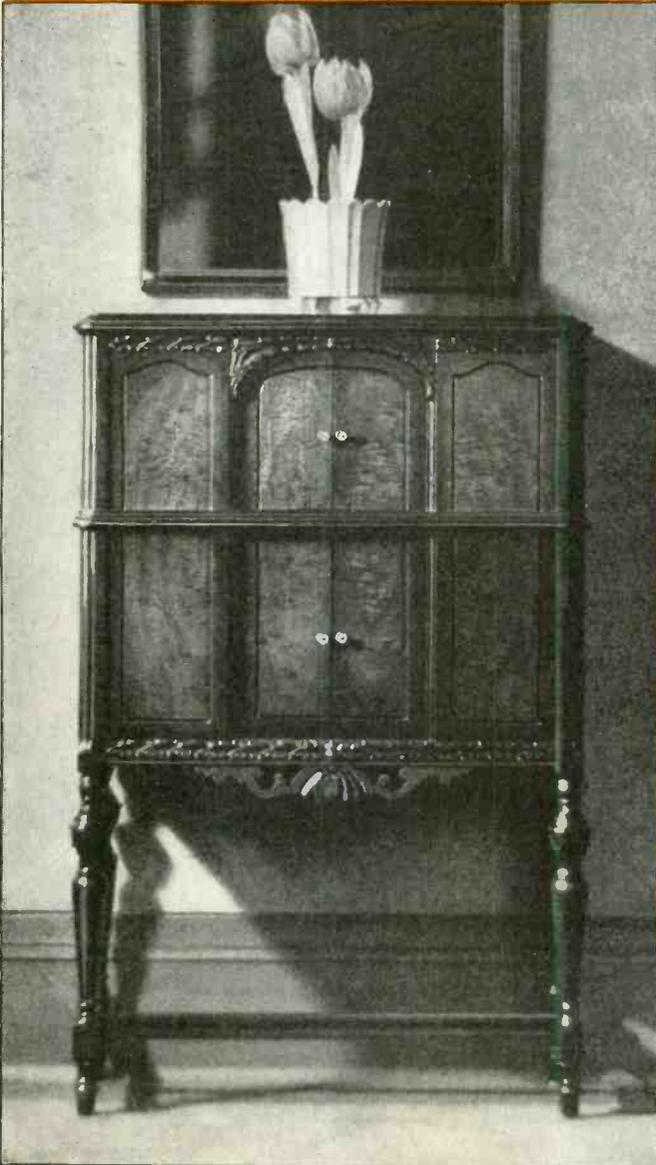
Bosch factory to dealer cooperation and Bosch newspaper and magazine advertising is worthwhile—Write now for details if you want to be included in this season's plans.

Bosch Radio is leased under patents and applications of RCA—RFL and Lektophone—Prices slightly higher west of Rockies and in Canada.

**AMERICAN BOSCH MAGNETO CORPORATION**  
**SPRINGFIELD MASSACHUSETTS**

Branches:      New York      Chicago      Detroit      San Francisco

To Left: The new Bosch Radio Table Model 48 contains the perfectly shielded chassis with seven tubes, three of which are the new Screen Grid amplifier type, housed in handsome table cabinet of grained walnut veneers. Sliding doors are introduced in a table model with a distinct sales appeal. List price, less tubes \$119.50



Above: The new Bosch Radio De Luxe Console is truly the last word in radio. The chassis, employing the most modern scientific developments in radio engineering, uses seven tubes, three of which are the new Screen Grid type, and two of which are the large new audio amplifiers arranged in push-pull. The cabinet, with tall sliding doors concealing both dial panel and electrodynamic speaker, is strikingly different. The finish is antique in Old English line and set off with well selected walnut veneers. List price, less tubes \$240.00

To Left: The Bosch Radio Combination Receiver and Speaker Console will be in great demand because it embodies Screen Grid quality radio in an inexpensive combination of charming individuality. Perfectly chosen woods and veneers combined with rich carving make this console one of beauty. It has the electrodynamic speaker. List price, less tubes \$168.50.

# LIKE TWO VISES



## This Jobber says:—

“ . . . and Perryman is the only brand of tube we have ever carried on which we did not have a loss. We have found that Perryman gives much better satisfaction, fewer service calls, resulting in more satisfied dealers, and naturally more satisfaction to us.”

The double Perryman Bridge grips the elements in Perryman Tubes, top and bottom. It holds the grid, plate and filament in permanent parallel alignment. This absolutely assures uniform operation of every Perryman Tube.

With this sturdy bridge construction Perryman Tubes defy all necessary

contraction of the filament due to temperature changes.

*Both these features mean fewer replacements—greater net profits to you.*

*Point out the double Perryman Bridge and Tension-Spring to your customers*

handling in shipment, in your store and in your customers' sets.

The Tension-Spring, another exclusive Perryman feature, allows for the uniform expansion and

THE PERRYMAN ELECTRIC CO., INC., 4901 Hudson Blvd., North Bergen, N. J.

# PERRYMAN

RADIO  TUBES

# The Big 3 for Quick Sales

Performance—  
Good Looks—  
Low Price

ALL three are well represented in the New 1930 Browning-Drake, plus many other points which make for easy, profitable selling. For example, *construction*. Backed by a reputation for quality over many years, Browning-Drake construction assures maintenance and performance and so keeps customers satisfied.

Browning-Drake tone, selectivity, distance-getting—all are unsurpassed by sets selling at twice the price.

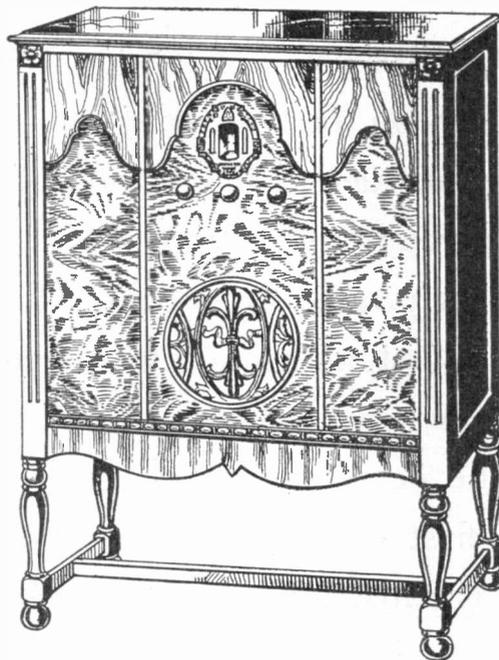
Do not overlook this good "buy." Some good territories still open.

Send for full information

## Browning-Drake Corp.

226 Calvary Street  
Waltham, Mass.

Builders of quality radio for five years.



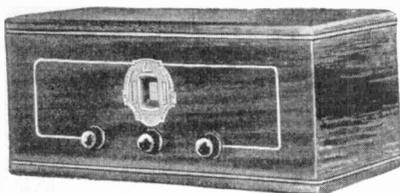
**Model 54**  
(Screen Grid) Small Console—  
(38x26x14) List, less tubes \$142.50

**Model 64**  
(Heater type) Small Console—  
(38x26x14) List, less tubes \$137.50  
Prices slightly higher west of Rockies

Eight models, table and console,  
heater and screen-grid types.

### Some Details You'll Want to Know

1. Semi-automatic tuning—both kilocycles and call letters on dial.
2. Five tuned circuits—nine tubes.
3. Tuned antenna.
4. Push-pull audio (245 power-tubes).
5. Power detection (plate rectification, optional).
6. Hum eliminator.
7. Band-pass filter effect (10 KC selectivity).
8. Mershon trouble-proof condenser.
9. Voltage regulation adjustment (manual).
10. Power unit integral part of chassis.
11. Large size dynamic speaker.
12. Phonograph, short wave and television connections.
13. Selected walnut and American gum wood cabinet.
14. Hand-rubbed satin Duco finish.



**Model 53**  
Table Model, Screen Grid Type  
List, less tubes \$102.50

**Model 63**  
Table Model, Heater Type  
List, less tubes \$98.00

Prices slightly higher west of Rockies

# Browning-Drake

## RADIO

Nearly 1,500,000 people are using Browning-Drake Sets

# PRICE *and* QUALITY

## ★ *Could a dealer ask for more?*

AT \$157.50 the new all-electric Eveready Screen Grid Model 52 is the biggest buy on the market today. . . . This leading price is a token of our determination to keep faith with the trade. We said three months ago that the Eveready Franchise was exceedingly valuable, and would increase in value in the future. An outstanding, spectacular example of such an increase in value is now seen. . . . Another vital Eveready contribution is the newspaper advertising now running in key cities. The first of these advertisements, occupying full-page space, is illustrated opposite. This is advertising of a distinction that is new to the radio field. It gives the Eveready line an immediate appeal of quality, builds prestige, carries conviction. . . . Having proved to you that the Eveready Franchise is quick to increase in value, we predict still further advances in the fortunes of Eveready dealers. The remarkable progress to date is only an indication of what is to come in the way of growth for us and for all who deal with us.

NATIONAL CARBON COMPANY, INC., *General Offices*, New York, N. Y.

*Branches:* Chicago—Kansas City—New York—San Francisco

Unit of Union Carbide  and Carbon Corporation

To that small but discriminating group who are interested in the finer things of life, we present the new Screen Grid

# Eveready Radio

THE PRECISION INSTRUMENT

... a new radio-receiver and a new ideal



—the man who loves the ring of a golf-ball in full flight

TO THE MAN WHO LOVES the ring of a golf-ball in full flight . . . to the woman who drives her own sport-coupe . . . to that portion of the public, in short, that has the time, the money, and the inclination to enjoy the better things of contemporary life, we present something new and refreshing.

Only such a restricted group, we feel, will appreciate in full the Eveready policy of "not how many, but how well" . . . the Eveready ideal of superb craftsmanship that builds for permanence, for lasting satisfaction over a period of years, for a definite return in happiness on the money you invest in this medium of home-entertainment.

*The Precision Instrument*

We like to refer to the new Eveready as the *Precision Instrument* . . . a radio-receiver born of a passion for painstaking accuracy; a precision that shuns the slap-dash assembly of mass production; a precision that does not stress one part or one feature at the expense of the others; a precision that you expect to find in a fine piano or a superlative motor-car.

This precision is predicated on *pre-vision* . . . that long look into the future

when the oratory of the salesman is forgotten; when, five or ten years from now, you will still be enjoying fine, clear, natural reception through the Eveready receiver you buy today.

From the winding of a coil to the tightening of a tiny nut, Eveready precision obtains all along the line. Even the cabinets—those truly beautiful pieces of furniture that are a delight to live with, day after day—even the cabinets are designed to serve the sound-reproducing qualities of the receiver.

For instance, our research-laboratories, with the facilities and experience of the great electrical and scientific organization that sponsors them, have found a way to make radio weather-proof! This means that on hot, muggy nights, your Eveready receiver will be as sensitive as in crisp November. Distant stations will come

in at room-filling volume. Clear . . . full-voiced . . . faithful to the original tone as it enters the microphone, miles away.

*Built for years of service*

If improvements are developed and found worth while in actual practice—they will be added. There may be refinements in the years to come, but we doubt that actual improvement, fundamental improvement, can be made in this present receiver, whose very basis is precision. Your investment today is therefore safeguarded. No "yearly model" is likely to render it obsolete.

We think of the Precision Instrument also as a *musical instrument*. It brings you the programs of the air in all their natural tone and

volume—with nothing added, nothing taken away. It is actually "a ticket to the microphone" . . . it takes you to wherever the broadcasting originates, as though by private wire. And the price is no higher than you are asked to pay for the ordinary "commercial" radio-receiver.

If you have been confused by the babel of claims and counter-claims; if you are bewildered by technical terminology; if you have never owned any sort of radio, for one reason or another; if you have been disheartened (or disgusted!) by the new *this* or the new *that* which seems to make any radio obsolete overnight, we urge you to hear the new Eveready . . . this *music instrument*; this finely engineered medium that will *not* be out of date next month or next year! See your nearest Eveready dealer now . . . today!

**NATIONAL CARBON CO., INC.**  
 General Offices: New York, N. Y.  
 Branches: Chicago Kansas City New York  
 San Francisco  
 Unit of Union Carbide and Carbon Corporation



EVEREADY SCREEN GRID CONSOLE MODEL 52, \$157.50 (LESS TUBES)  
 Model 53, a larger console, \$195—Model 54, the de luxe console, \$225 (less tubes), using the same perfected screen grid chassis



—the woman who drives her own sport-car

● *Features of the New Eveready*

THE NEW EVEREADY contains eight tubes, including rectifier. Uses three of the new screen grid tubes. Last audio stage is push-pull, using two 245-type tubes. Power-detector and resistance-coupling preserve original tonal purity and fidelity.

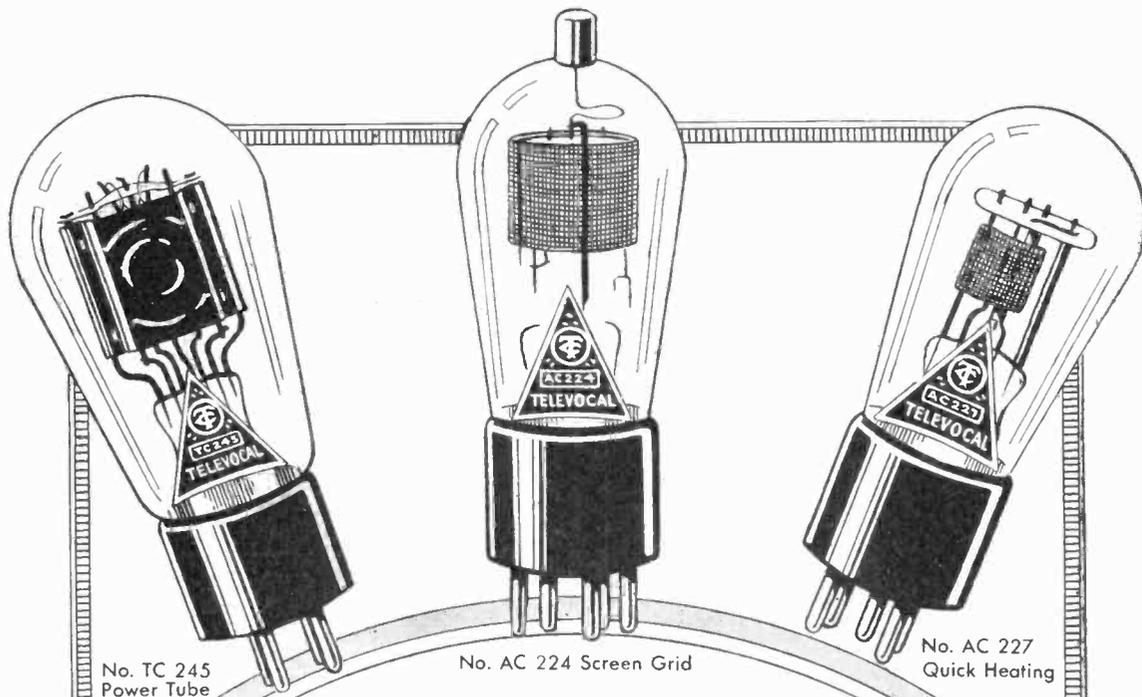
Special built-in electro-dynamic speaker of Eveready design.

Insulation can warp and swell without altering original fine adjustments made in laboratory, regardless of weather-changes. Unyielding metal (usually steel) used to preserve accurate alignment of parts.



—people who enjoy life to the full

**EVEREADY**  
 TRADE MARK REG.  
**Radio** THE PRECISION INSTRUMENT  
 Licensed under patents and applications of RCA and RFL



# Televocal

## Quality Tubes

Instantaneous — no — but close to it. And the programs come in clear as a bell, and free from all hum, crackle or buzz. Tremendous undistorted volume—more than you need—producing an unequalled fidelity of tone, even under a full load...Incredible sensitivity with hair-line selectivity, giving accurate and natural reproductions of programs from stations never heard before...Sturdy and rugged construction, built to

### QUICK HEATING

withstand the shocks and knocks of everyday use... Televocal Tubes are standard equipment with many leading set manufacturers, and progressive dealers have learned that sales are quicker and easier with Televocals in their sets...All Televocals are absolutely uniform. Endless tests and inspections insure their high standard of quality and makes them all twins...Televocal Tubes are made in all standard types.

## Televocal Corporation

TELEVOCAL BUILDING, DEPT. B-10

588—12th St., West New York, N. J.



# BELIEVE IT OR NOT—

## There is a Steadily Growing Market for Radio Parts in the United States!

**T**HE confirmed radio experimenter will not be downed! The custom set-builder is constantly on the *increase!* Students in technical schools and colleges are taking to radio construction as never before!

All these constitute a present and future market for radio parts that is *unlimited in scope.*

You can cash in on this great opportunity by hooking up with the world's largest radio parts plant!

The man who buys radio parts today *knows* his radio. He prefers to trade at a store where men are technically trained and qualified to talk to him in his own language—the *technical language of radio.*

Therefore, Pilot offers to qualified dealers who are *financially responsible,* an opportunity to become *Authorized Pilot Agents.*

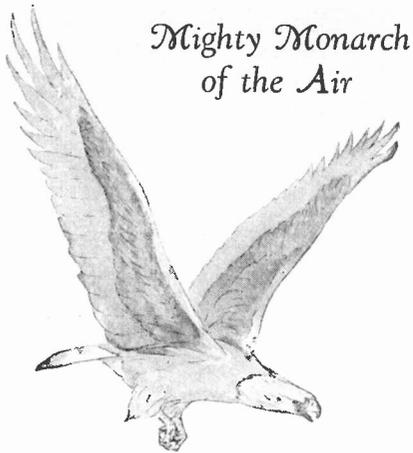
Write and tell us something about yourself and your qualifications and we will in return tell you what we have done and are doing in the development of the radio parts business of this country.

**{The Pilot Policy Protects the Dealer by  
assuring him a legitimate profit at all times.}**

# PILOT RADIO & TUBE CORP.

**WORLD'S LARGEST RADIO PARTS PLANT  
323 BERRY STREET, B'KLYN, N. Y., U. S. A.**





Mighty Monarch  
of the Air

**“Majestic dealers have never been left out of the picture in any of Grigsby-Grunow’s plans. That’s why they HAVE made, ARE making, and WILL CONTINUE to make more money than any other dealers in the radio business.”**



Vice President and Treasurer

GRIGSBY-GRUNOW COMPANY, CHICAGO, U.S.A.  
World’s Largest Manufacturers of Complete Radio Receivers

Makers of

**Majestic**  
**RADIO**

Licensed under patents and applications  
of R. C. A. and R. F. L., also by Lektro-  
phone, Lowell & Dunmore and Hogan  
License Associates.

# Here's the Ideal Speaker for REMOTE CONTROL

## A SPEAKER FOR EVERY ROOM

REMOTE control is the next step in radio and the Jack Horner Speaker is *the ideal* speaker for remote control—the one the public will demand when the bulk and cumbersomeness of present furniture has passed. It hangs in the corner out of the way.



## THE JACK HORNER SPEAKER

THIS richly designed speaker takes up no floor space, but adds beauty to its surroundings and increases the beauty and volume of its performance by using the very walls of the room it hangs in to *focus and increase the sound.*

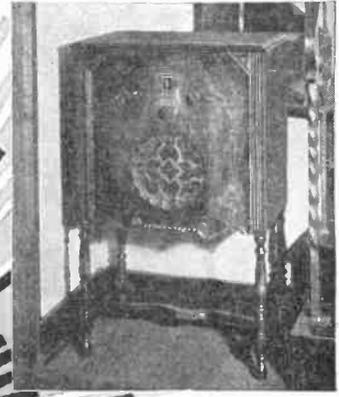
The Jack Horner Electrodynamic Speaker is a panel of hand rubbed walnut equipped with attractive mirror cords complete, *ready to hang in a corner.* The Jack Horner has a 40 inch baffle and reproduces efficiently fundamental frequencies as low as 90 cycles. *Hear its fine tone quality. Extreme naturalness!* It has definite, unusual eye value. A tone control is included which permits adjustments of pitch to suit the individual's taste. Made for 110 volt A.C. 50-60 cycle, 110 volt A.C. 25-40 cycle and 110 volt D.C.

COMPLETE LINE—Operadio Electrodynamic, Conamic and Air Column Speakers

# OPERADIO

MANUFACTURING CO., ST. CHARLES, ILL.

# ROUNDING OUT a High Achievement in Radio Development



**D**AY-FAN presents a line with every requirement for successful merchandising throughout the season of 1929-1930.

A sufficient variety in cabinets to please individual taste—a price range that has wide appeal—yet every model is built to a single advanced standard of quality. We are producing one chassis only for the standard-tube models—and only one chassis designed for the new screen-grid tubes.

Every Day-Fan set is distinguished by a brilliant, natural tone—a tone so indescribably charming that it wins every listener—a tone that is Day-Fan's own. Both the new screen-grid

models and the standard-tube models have this distinctive quality of reproduction.

Both have the sensitiveness, the power and the high degree of selectivity that set new standards for radio performance.

## Day-Fan Screen Grid Models

Screen-grid Radio now offered by Day-Fan reflects the extra months of time put upon its development by the engineering staff. The set is correctly designed to use the new tubes to the best advantage. Performance is marked by fidelity of tone and by selectivity which has not been sacrificed in any degree. Day-Fan radio employs three screen-grid tubes, and a power detector-tube with 280 rectifier and two 245's in push-pull.

**DAY-FAN ELECTRIC CO.**  
1110 Wisconsin Blvd.,  
Dayton, Ohio

PRODUCT OF

**Day-Fan**  
RADIO

**GENERAL MOTORS**

The lowest priced, high grade set analyzer. Dealers' Price . . . \$73.12

Used by many of the largest radio organizations

Makes every essential radio field test

Endorsed by radio manufacturers and engineers

Simple to operate. Doesn't require a radio engineer to use it



Backed by the most complete Radio Data Service

## Built to Specifications of Servicemen

**G**OOD service equipment pays for itself. *If you don't have good service equipment, you pay for it over and over again in wasted time, costly service, troublesome complaints, and loss of business.* The Jewell Pattern 199 represents the greatest value available in field service equipment today.

Built to the highest standards of quality, and providing every essential field test, the Jewell Pattern 199 is a marvel of simplicity.

Developed to accurately meet the needs of radio service—backed by the most complete radio data service—the lowest priced, high grade set analyzer on the market, it is not surprising that Jewell Pattern 199's are the standard field service equipment of America's most successful radio sales and service organizations.

The price of the Jewell Pattern 199 is so reasonable that you can't afford to have your servicemen use inferior or obsolete equipment. Order Jewell Pattern 199's from your jobber today.

Write for catalog describing the Pattern 198, or the Pattern 199 in a large cabinet with compartments for replacement tubes and tools; the Pattern 409 4-Instrument Set Analyzer; the Pattern 210 Tube Checker; and the Pattern 581 Test Panel, with 7 large high grade instruments for service laboratories.

*The latest edition of the Jewell booklet, "Instructions for Servicing Radio Receivers," is just off the press. It contains data on receivers of 38 manufacturers, or 139 of the most popular sets. Furnished free to radio servicemen upon request. Mail the coupon.*



Jewell Electrical Instrument Company  
1642-A Walnut Street, Chicago, Illinois

Please send us your booklet, "Instructions for Servicing Radio Receivers," and literature covering Jewell High Grade Radio Service Instruments.

Name-----

Address-----

29 YEARS MAKING GOOD INSTRUMENTS  
**JEWELL**  
199 Set Analyzer

LEVI F. WARREN JUNIOR HIGH SCHOOL, WEST NEWTON, MASS., PAM EQUIPPED



PAM 16

# PAM

## the new educator

Walter Damrosch and other famous educators are instructing thousands of children in our schools through radio and PAM installations.

The voice of the educators or music received by radio or from phonograph record is amplified by PAMs for loud speakers in class rooms and assembly halls.

The PAM equipment installed for educational purposes is admirably suited to furnish music for class parties or other school social functions.

Many fine installations, such as that at

the Levi F. Warren Junior High School, West Newton, Massachusetts, shown above, can be sold by wide-awake radio dealers.

A new 16-page bulletin giving mechanical and electrical characteristics, representative installations and many new PAM amplifiers will be sent upon receipt of 10c in stamps to cover postage. When writing ask for bulletin No. RR-13.

*Samson Electric Co.*

MEMBER  
RMA

Main Office:  
Canton, Mass.

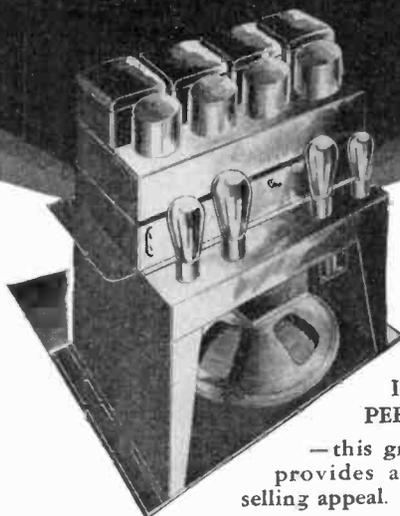
Manufacturers Since 1882

Factories:  
Canton and Watertown, Mass.

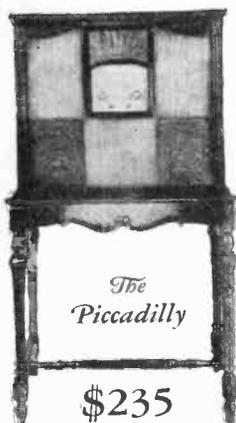
*Priced  
to sell  
Profitably*

# PROVED *by its sales records*

*Built to  
Command  
the Price*

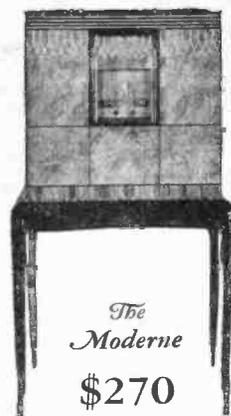


**INTEGRAL  
PERFECTION**  
—this great chassis  
provides a powerful  
selling appeal.



*The  
Piccadilly*

\$235



*The  
Moderne*

\$270



*The  
Cavalier*

\$235

Exclusive features that make this  
"Radio's Clearest Voice"

CUTTING DYNAMIC SPEAKER

CUTTING SOUND RADIATION

FOUR SCREEN-GRID TUBES  
(EIGHT TUBES IN ALL)

The rare beauty, superb performance, outstanding value of the new Colonial are winning new preference from coast to coast.

## To a few **Jobbers**

COLONIAL offers a chance to surpass its great Eastern success!

Jobber and dealer commitments have far exceeded our highest hopes, but our tremendous new manufacturing facilities make it possible for us to designate a few more capable distributors. If you have no comparable line...if you want to reinforce a low-priced line of sets with a higher-priced line which will SELL...get in touch with us at once.

**WRITE OR WIRE**

# COLONIAL Radio



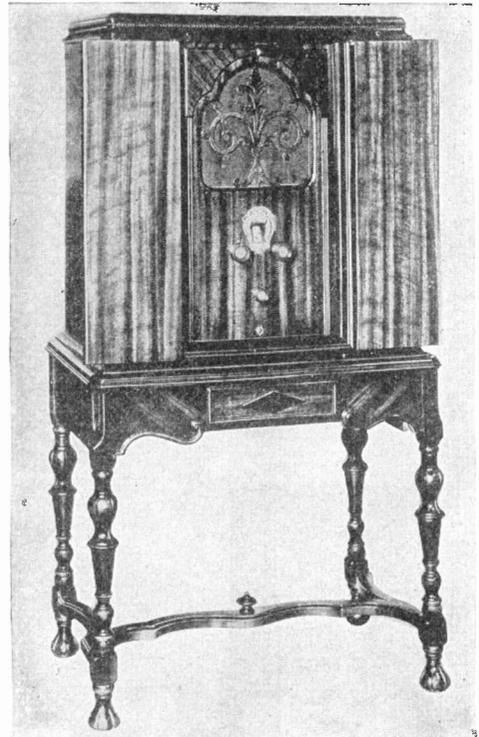
"RADIO'S CLEAREST VOICE"

COLONIAL RADIO CORPORATION, LONG ISLAND CITY, N. Y.



DURHAM Metallized RESISTORS and POWEROHMS are available for every practical resistance purpose in radio and television circuits, 500 to 200,000 ohms in power types; 1 to 100 Megohms in resistor types; ratings for all limited power requirements; standard, pigtail or special tips.

THE LEADERS STANDARDIZE  
ON DURHAM RESISTANCES



The FREED NR 95 Radio—a 9 tube neutrodyne in deluxe walnut veneered console with electro dynamic speaker.

## Only the *BEST* is Good Enough for The **FREED RADIO**

**I**N the automobile field there are several makes of axles—but there is only one **TIMKEN**—the axle that is installed in the leading cars of the industry. In radio there are many makes of resistances—but only one **DURHAM**—the Resistors and Powerohms which are used by leading quality receivers in the industry. Freed Radio easily could cut the cost of their resistances by a small fraction, but their engineers, their dealers, their jobbers and their ultimate consumers get added value

in finer reception because **FREED RADIO RECEIVERS** use Durhams. The presence of Durhams in a receiver is a guide to the quality of all other parts. Write for engineering data sheets, samples for testing and complete literature. Please state ratings in which you are interested.

**DURHAM**  
RESISTORS & POWEROHMS  
INTERNATIONAL RESISTANCE CO.  
2006 Chestnut Street, Philadelphia, Pa.

# FADA SALES SOAR WITH ANNOUNCEMENT OF VIBRA-CONTROL

*Competition Blasted by Revolutionary Improvement in Radio Reception*



**VIBRA-CONTROL FADA 35  
HIGHBOY**

Uses screen grid tubes, new 245 power tubes in push-pull amplification, with Fada Pre-Selector for sharpest selectivity. Fada full-power dynamic speaker, equipped for phonograph attachment.

Reputable dealers who are interested in getting first profits should communicate immediately with us for information regarding the selective Fada franchise.

**L**IGHT socket sets . . . dynamic speakers . . . screen grid tubes . . . and now Vibra-Control.

. . . One of the most revolutionary improvements since radio was first invented.

Vibra-Control has taken the country by storm. Overnight America has found a new sensation, as Fada dealers strip their stocks to meet the unprecedented landslide of public interest that followed the first announcement of Vibra-Control.

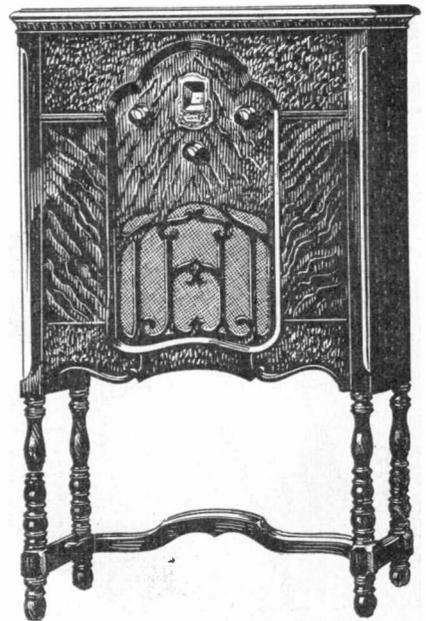
And no wonder: for Vibra-Control makes obsolete old-fashioned uncontrolled radio reception, and the public knew it instantly.

For when Fada finally solved radio's greatest problem it freed music from mechanical slavery and at last reproduced programs exactly as broadcast . . .

Today, Vibra-Control is smashing all national sales records . . . Even the dullest ears quickly appreciate the difference.

Eventually others must follow: but only Fada dealers today can present a series of instruments with complete Vibra-Control.

F. A. D. ANDREA, INC., Long Island City, N. Y.



**VIBRA-CONTROL FADA 25  
HIGHBOY**

Uses screen grid tubes, new 245 power tubes in push-pull amplification. Fada full power dynamic speaker, single illuminated dial—equipped for phonograph attachment. All prices are slightly higher west of the Rockies and for export.

**FADA ON THE AIR**

Hear the Fada Orchestra conducted by David Mendoza, broadcast over the Columbia chain every Tuesday night at 10 P.M., Eastern Standard Time.

# FADA Radio

THE CHOICE OF THE EXPERTS

The

# TOMAN SUPER PICK-UP

The Talk  
of the  
Trade!

GREATER VOLUME  
FINER TONE  
ADDED BEAUTY



Brings you profit because it's the most outstanding Pick-up ever developed—gives more volume—better tone—is most attractively designed—and properly priced!

See . . . Hear . . . and  
KNOW the World's  
First Super Pick-up!

MANUFACTURERS, JOBBERS, DEALERS—until you have both seen and heard the new TOMAN Super Pick-up, you cannot begin to realize its importance to the radio-music industry. Excellent tone, fine full volume, beautiful symmetry of design, have brought nation-wide acceptance and popularity. Already, foremost manufacturers are adopting it as standard equipment. To YOU the Toman Super Pick-up represents the first great profit-making opportunity in this line. Like all Toman products it is reasonably priced. A single test will convince you of its importance. . . of its unusual profit-making possibilities. Let us send sample, without obligation, for your own tests. Put yourself a step ahead of your competition! Act now!

PERFECT FOR THEATRICAL USE

## TOMAN

REPRODUCERS  
PICK-UP ARMS



TONERMS  
PICK-UPS

### E. TOMAN & CO.

2621 W. 21st Place,  
Chicago, U. S. A.

Cable—SIVAD—Chicago  
Established 1914

Bankers—1st National Bank of Chicago

"In view of the many favorable trade comments I've heard about the Super Pick-up

I WANT TO TEST IT!  
You may send a sample today, without obligation on my part to buy."

Name .....

Address .....

City .....

Executive .....

# SERVICING

—*is it an asset or a liability to you?*

How many radio dealers are there who, having tried to operate their own servicing department, have given up in disgust and "farmed out" the work to an outside service agency? Servicing has occasioned more grief and put more red figures in the ledger than any other branch of the radio business. Yet it has been demonstrated time and again since the Weston Model 547 Radio Set Tester was brought to perfection and put on the market that radio servicing can easily be made highly profitable. With this set tester the service man's work is reduced to a certainty. No more is it necessary for the service man to waste time hunting for trouble. Model 547 gives him the answer instantly. The speed with which his work is accomplished eliminates the cash loss occasioned by waste of time and enables him to do ten jobs in the same time it formerly took him to do four. Furthermore, his work is final, and there is no necessity for a return call.

WESTON ELECTRICAL INSTRUMENT CORPORATION

581 Frelinghuysen Avenue,  
Newark, N. J.

Weston Model 547 is provided with three instruments — all  $3\frac{1}{4}$ " diameter and furnished with bakelite cases. Carrying case, movable cover, panel and fittings also are made of sturdy bakelite.

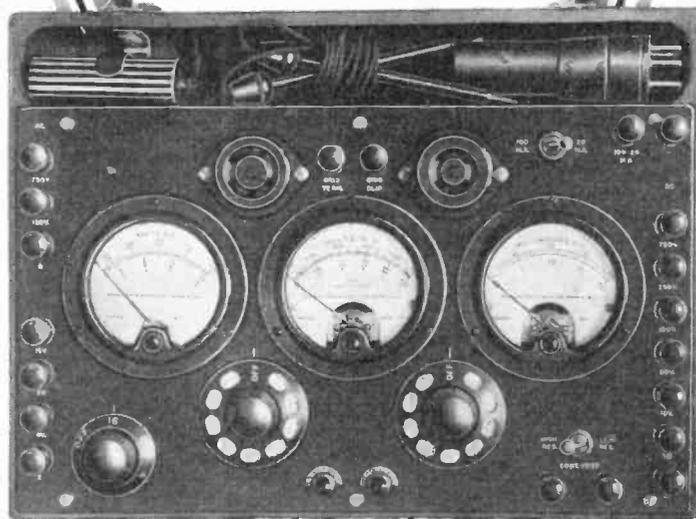
**A. C. Voltmeter** — 750/150/16/8/4 volts. The three lower ranges are brought out to the Tester plug, and all five ranges are brought out to binding posts. 750 volt range is for testing secondaries of power transformers. 16 volt range is to provide for 15 volt A. C. tubes. Operations have been reduced—only one selector switch being necessary.

**D. C. Voltmeter**—High range increased to 750 volts. Other ranges—250/100/50/10/5—all six ranges brought out to binding posts and Tester plug.

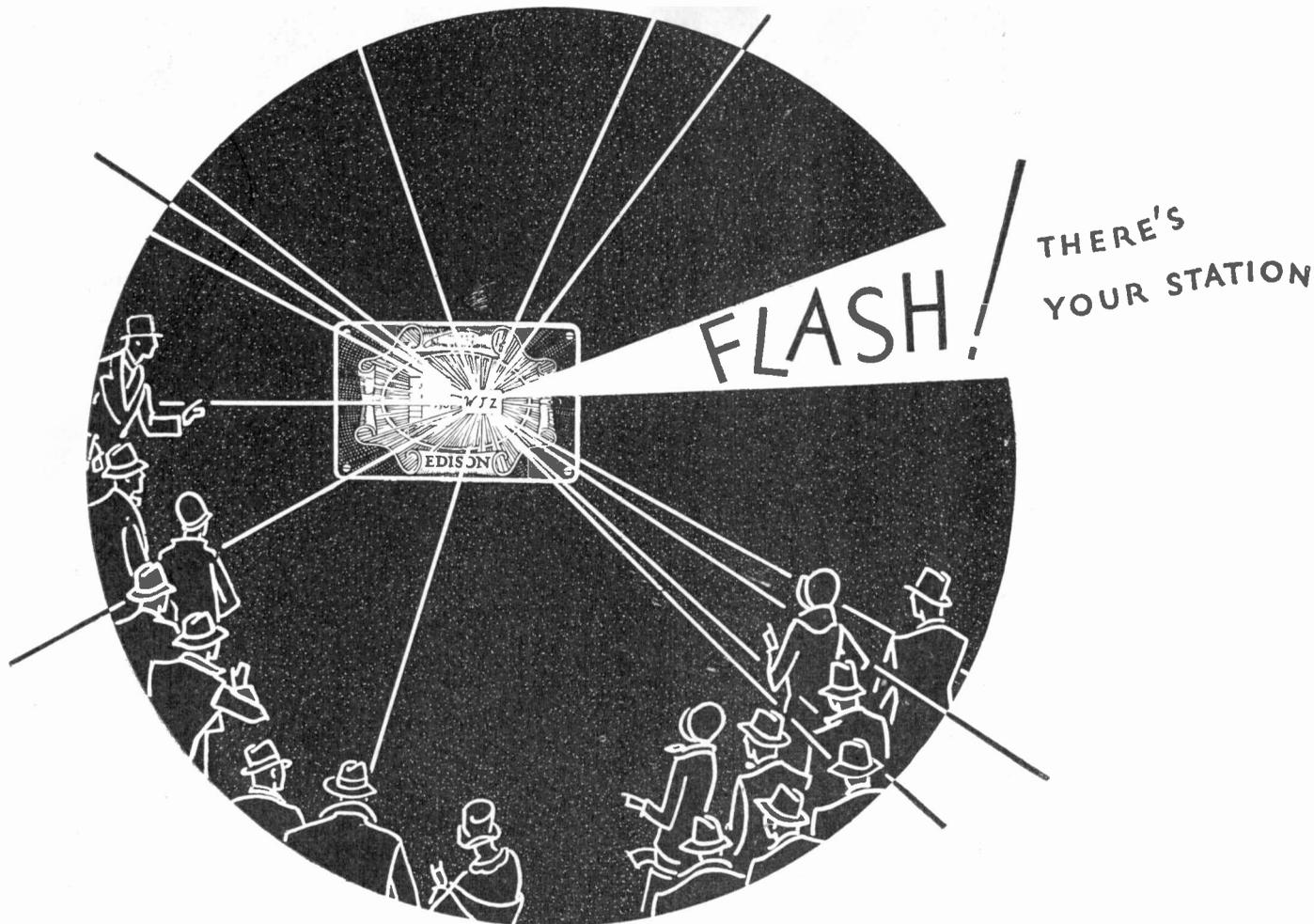
**D. C. Milliammeter**—Doublerange—100/20 M. A. provides for lower readings with better scale characteristics.

**Tests** — On A.C. sets the heater voltage and plate current can be read throughout the test while the D. C. voltmeter may be indicating plate bias or cathode voltage.

Self-contained, double sensitivity continuity test provided. This can also be used for measuring resistance as well as testing for open circuits. Grid test can be made on A. C. or D. C. screen grid tubes—also the '27 tubes when used as a detector—without the use of adapters. Two sockets on the panel—UY tube adapters eliminated.



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



## The Public has gone EDISON . . . !

The new Edison Light-O-Matic Radio is a sensation! People marvel at the uncanny speed and precision of Light-O-Matic Tuning—they thrill at bringing in distant stations as clearly and easily as locals. By telephone, telegraph, air mail, Edison dealers are re-ordering as never before.

It takes an unusual radio to make a sensation today—and the Edison has lived up to the great name on its panel by

making that sensation. Follow the public and let the new Edison Light-O-Matic Radio make this your greatest season.

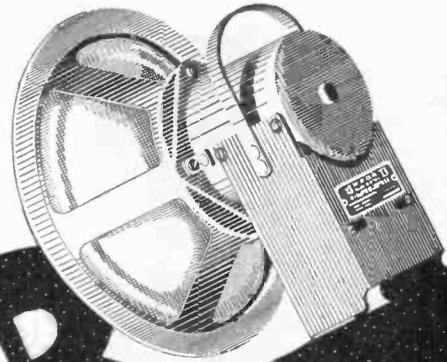
TRADE MARK  
*Thomas A Edison* Inc.  
 ORANGE, N. J.

# EDISON LIGHT-O-MATIC RADIO

### EDISON DISTRIBUTING CORPORATION

ATLANTA, 155 So. Forsyth St. . . . BOSTON, Statler Bldg. . . . CHICAGO, 3130 So. Michigan Ave. . . . DALLAS, Santa Fe Bldg. . . . DENVER, 1636 Lawrence St. . . . KANSAS CITY, 1215 McGee St. . . . MINNEAPOLIS, 608 First Ave., N. . . . NEW ORLEANS, 128 Chartres St. . . . ORANGE, N. J. . . . PITTSBURGH, 909 Penn Ave. . . . RICHMOND, 1204 East Main St. . . . SAN FRANCISCO, 1267 Mission St. . . . SEATTLE, Volker Bldg.

BINGHAMTON, Alliance Motor Corp. . . . BUFFALO, Alliance Motor Corp., 1460 Main St. . . . CINCINNATI, Edi-Radio Mart, 622 Broadway Ave. . . . CLEVELAND, B. W. Smith, Inc., 2019 Euclid Ave. . . . DETROIT, E. A. Bowman, Inc., 5115 John R. St. . . . DUBUQUE, Renier Bros. . . . LOS ANGELES, H. R. Curtiss Co., 727 Venice Blvd. . . . NEW YORK, Blackman Distributing Co., 28 W. 23rd St. . . . OGDEN, Proudfit Sporting Goods Co., 2327 Grant Ave. . . . PHILADELPHIA, Girard Phonograph Co., Broad & Wallace Sts. . . . ROCHESTER, Alliance Motor Corp., 727 Main St., East. . . . SAGINAW, Morley Bros. . . . ST. LOUIS, Silverstone Music and Radio Co., 412 N. 12th St. . . . SYRACUSE, Alliance Motor Corp., 1045 South Salina St.



# SPEAKER BY OXFORD

Only through painstaking care in matching of speaker with the radio chassis can that "true-to-life" quality be achieved. THAT IS WHY—Leading radio engineers have selected OXFORD Electro-Dynamic Speakers for their consoles and today you will find many nationally-known radios equipped with OXFORD Speakers. You can safely accept the judgment of these radio engineers as further assurance that "SPEAKER BY OXFORD" means true and glorious sound interpretation from your radio receiver.

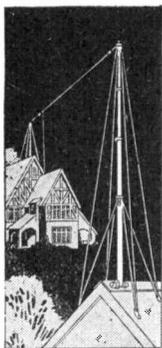
We are prepared to submit quotations on correct type speaker for your radio chassis. Write today.

Licensed under Lektophone patents.

**OXFORD RADIO CORPORATION**  
G. A. Joy, President  
Frank Reichmann, Gen'l. Sales Mgr. and Chief Engr.  
Roy W. Augustine, Secy. and Treas.  
3200 W. Carroll Ave. CHICAGO, U. S. A.



EX  
PENSIVE  
BUT THE  
FINEST



Illustrating a typical Premax installation using 13-foot and 3-foot Premax Masts.

# FREE BOOK ON AERIALS

..... *What Leading Radio Engineers Say About Aerials*

**I**N the new Premax Book, "The Right Aerial and Easy Ways to Install It," leading Radio Engineers . . . the men who design and engineer today's outstanding receiving sets . . . urge a dependable, outdoor aerial as a part of every radio installation. They tell you that the performance of every set is directly dependent upon and proportional to its type of aerial.

Premax Standard Aerials and Grounds meet every need. They are collapsible . . . attach and anchor them . . . then raise to desired height and lock! The safest, quickest and easiest erected aerial you ever put up . . . rustproof, windproof, attractive, inexpensive. Start your new set-purchasers right . . . with the *lifetime* Premax Aerial installation.

**For Jobbers**

The new Premax book shows all the new items in the Premax line including the efficient, rugged and popular priced Premax Umbrella Type Aerial. Ask for it and the profitable Premax proposition.

**For Dealers**

The illustrations which show Premax aerials solving every possible kind of installation problem will be of great aid to you and your customer. Also shows many ways to improve radio reception.

**For Service Men**

A great many service men are using the many blueprints in the new Premax book as standard instructions for aerial installations. Proper antenna lengths and heights for every occasion also shown.

**MAIL THE COUPON**

PREMAX PRODUCTS, INC., Dept. R, Niagara Falls, N. Y.

Please send me free copy of your new book, "The Right Aerial and Easy Ways to Install It."

Name \_\_\_\_\_

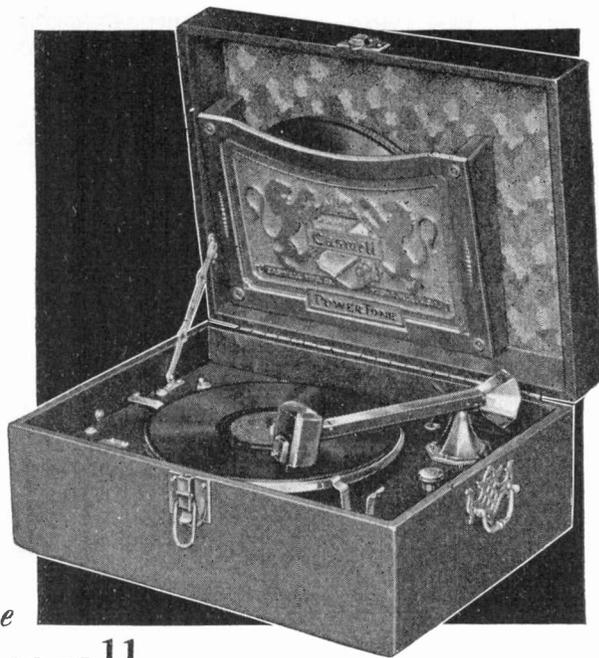
Address \_\_\_\_\_

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

Jobber's Name \_\_\_\_\_

**PREMAX AERIALS AND GROUND RODS**

THERE IS A STANDARD PREMAX AERIAL FOR EVERY JOB!



*The* **Caswell POWERTONE**

Another Caswell achievement has proved one of the hits of the trade show—the new, all electric Caswell PowerTone. A treasure chest in appearance, it combines those elements of precision, compactness and beauty most desired in a portable pick-up.

\$49<sup>50</sup>

[ All Electric ]

In value, the PowerTone is the wonder of the industry. It is equipped with a General Electric Synchronous type motor—a power plant whose performance and dependability is world famous. It incorporates the Patent Phonovox—a pick-up device of exceptional tone quality, roundness and precision assuring the faithful reproduction of every type of phonograph record. It is fitted with antique brass effect hardware and a built-in, art-crafted record album, making it a thing of beauty for any home. When placed on top of the radio cabinet, the Caswell PowerTone becomes an individual part of the musical equipment—its soft brown coloring blending perfectly with any wood finish.

**JOBBERS!**

Consider the profit possibilities of this item from all angles—then write us for our jobber's proposition, keeping in mind the fact that Caswell does not compete with you in selling to the trade—but sells only through recognized jobbers.

Caswell Manufacturing Company

St. Paul Avenue at Tenth Street Milwaukee, Wisconsin

**CASWELL**

# MORE big news in radio

# \$62

WITHOUT TUBES

Shown here  
without front panel

The

## CROSLEY MONOTRAD

...a 7-tube Screen Grid  
Receiving Unit

**A**LL the wonderful qualities of a Screen Grid—plus an exclusive new feature, *Triple Range Control*—yours, now, in this latest Crosley Model 30-S, the Monotrad!

And at a new low price—the *lowest prevailing price* in Screen Grid sets. Only \$62, without tubes. This model of the Monotrad, in its simplest form with front panel, may be installed in bookshelves, etc., or in any cabinet you may have. The Monotrad is also available in a wide range of cabinets produced by six of the country's leading cabinet manufacturers, in addition to the Crosley models shown at the right.

Through means of the exclusive *Triple Range Control*, the full power of the set can be adjusted to local, nearby, and distant stations. This ingenious device makes possible a

flexibility of control never before achieved.

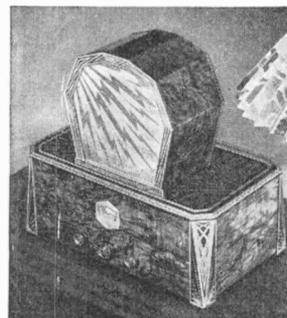
Note, too, that the Monotrad utilizes: Two 224 Screen Grid tubes in R. F. stages; one 227 tube as power detector; one 227 first audio tube, resistance coupled; two 245 power output tubes, connected push-pull; one 280 rectifier tube—seven in all. The Monotrad also has the Neutrodyne circuit.

Little wonder that this "biggest news of all" is creating such a sensation in the industry. The nearest Crosley distributor will gladly have you examine it thoroughly, test it critically. Get in touch with him *today*—or write us direct.

THE CROSLEY RADIO CORPORATION  
Powel Crosley, Jr., Pres.  
Cincinnati, Ohio  
*Home of WLW*

You're there with a

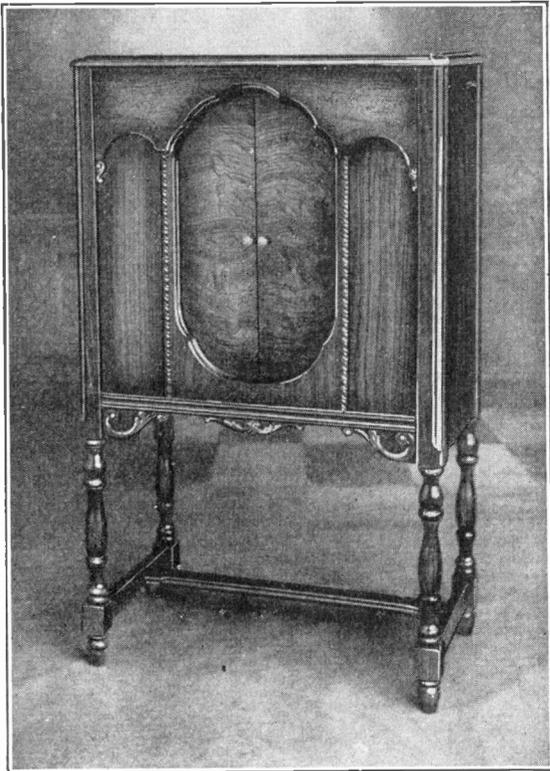
# CROSLEY



Crosley 31-S, incorporating the Monotrad, \$67 without tubes. Also available with legs at \$72. With Crosley Dynacoil Speaker, as shown, \$28 extra



Crosley 33-S incorporating the Monotrad, complete with the Crosley Dynacoil Speaker, at \$115 (without tubes) Western prices slightly higher



MODEL 425—WITH SLIDING DOORS

## Charm... Dignity... character

is expressed in every line of this latest console by Corbett—Model 425.

It is the conception of designers to whom the art of cabinet creating is a life work; by craftsmen with whom faultless handiwork ever comes foremost.

Attractiveness is at once apparent and it can be readily grasped that it will harmonize with other furniture.

We carry a stock of consoles and combinations for Crosley, Atwater Kent and other receivers.

Get our lowest net prices and latest bulletin today.  
It will pay you.

Corbett Cabinet Mfg. Co.  
ST. MARYS, PA.

## We've put our finger on the things that sell sets

Sets that sell readily—and earn a handsome profit—that's what you want.

And that's just what Simplex gives you in two cabinet models of unsurpassed beauty with all those improvements and refinements that spell ready sales.



Model F Highboy  
Retails \$169.50 less  
tubes, 26 1/2 in.  
wide, 47 in. high,  
15 3/4 in. deep. Ship-  
ping weight 125 lbs.

Amplification four times that of ordinary sets—tone that customers marvel at—deep full-throated volume—greater range and a selectivity that singles out any station. These are Simplex features that make it easy for you to sell Simplex Sets.

Highboy and Lowboy Models—housed in figured walnut cabinets—Highboy has matched burl walnut sliding doors.

Here are sets a year and more ahead of the field—chassis equipped with jacks for television apparatus—sets whose superiority are at once evident to the customer.

And prices—surprisingly low—  
Model F Lowboy ..... \$139.50 less tubes  
Model F Highboy ..... 169.50 less tubes

### SPECIFICATIONS

Tubes—three 224, one 227, one 245, one 280. Four tuned stages. Power detector with automatic grid bias, detector directly coupled to output stage; illuminated dial, kilocycle calibration, completely shielded. Automatic voltage regulation; safety fuse, built-in light socket antenna, phonograph connection. Super Power dynamic speaker.

Write For Details Today

The **SIMPLEX** Radio Co.  
SANDUSKY OHIO



## Why **MARVIN** Radio Tubes *~ Serve Better ~ Live Longer ~*

**M**ARVIN Radio Tubes are Master-Built by skilled engineers in the thoroughly modern factory shown above.

The finest of automatic processes produce Marvin Tubes in quantity. Quality is insured by the exceptional testing methods installed by an engineering staff second to none in the industry.

Radio dealers are invited to consider this, and any other Marvin advertisement, an open invitation to test Marvin quality in comparison with all other tubes. No matter how comprehensive or rigid the tests, we are confident of the result. You will be convinced that Marvin Radio Tubes "*Serve Better and Live Longer.*"

# MARVIN MASTER-BUILT RADIO TUBES

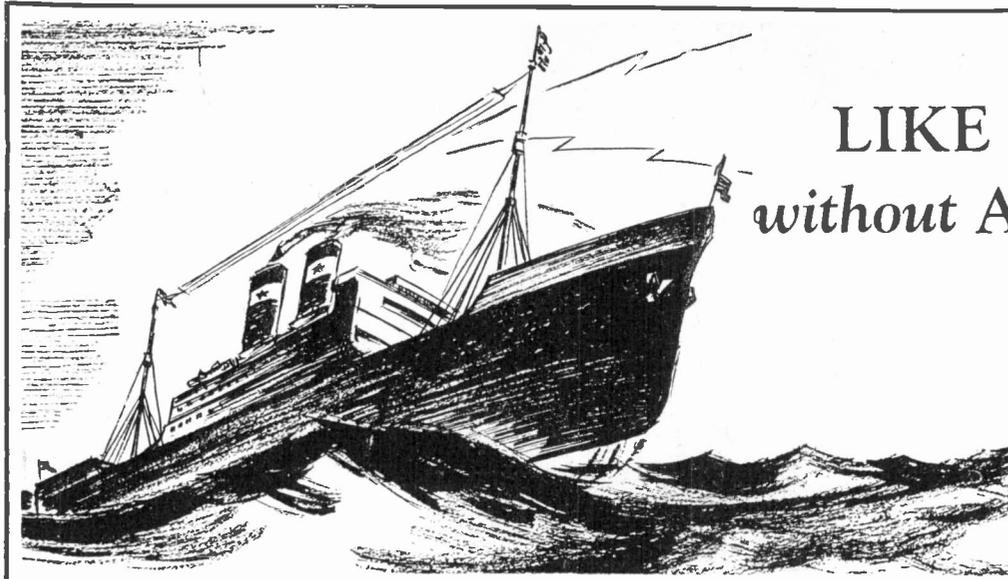


*A section of the thoroughly modern Marvin factory, where Master-Built Tubes are produced.*



**MARVIN  
 RADIO TUBE  
 CORPORATION**  
 Irvington, N. J.

*Sales Office*  
 225 Broadway  
 New York City



LIKE A SHIP  
*without* A RUDDER

the "control" is gone . . . not powerless . . . but rudderless . . . no longer does she respond to the helmsman.

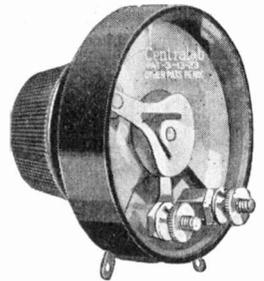
Your radio without a good resistance device like the CENTRALAB resistance, doesn't respond to the slightest touch of the "helmsman."

You steer your way through the ether by fits and starts . . . augmenting the "static storms" by internal "self-inflicted" noises.

Better be sure that your radio is "Centralab" equipped.

**Centralab**

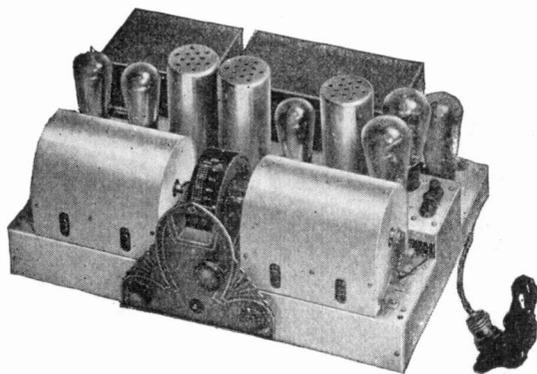
CENTRAL RADIO LABORATORIES  
20 KEELE AVENUE, MILWAUKEE, WIS.



"Volume Control  
Voltage Controls and  
Their Uses"

is the title of an interesting pamphlet that is yours for the asking.

**NO Aerial - NO Loop - NO Ground!**



*Antenna-less*  
**MANDEL Screen Grid Chassis**

**D**ISTANT stations without an aerial, loop, or ground. Power galore. Atmospheric static greatly reduced. No unsightly wires or bothersome installation. Lightning hazard eliminated. Selectivity developed sharper than ever before. Pure, natural tone—so real that you forget it is a radio. These are the reasons why the MANDEL Screen Grid Chassis has sprung into sudden prominence.

*Built for those who wish to increase their profits by marketing a fine radio under their own name.*

**Mandel Electric Co.**

2157 No. California Ave., Chicago, Ill.  
Makers of Fine Radio Apparatus Since 1920



**MANDEL Electro-Dynamic Speaker**

Made to match the fine quality of the MANDEL Chassis. Wired for 90 to 125 volts, 50 to 60 cycles, alternating current, or for direct current operation in connection with the MANDEL Chassis. Also made to operate from a 6-volt battery.



## Built Like a Fine Piano

☞ The one radio that's "built like a fine piano" is so rich in beauty, so lifelike in tone, so advanced in performance that it has an inevitable appeal to the best people and the best dealers. ☞ To these dealers an exclusive agency franchise is granted that assures maximum profits. Get the facts. ☞ Then decide if this isn't radio's most profitable opportunity.

Bush & Lane Piano Co.  
Radio Division  
Holland, Mich.

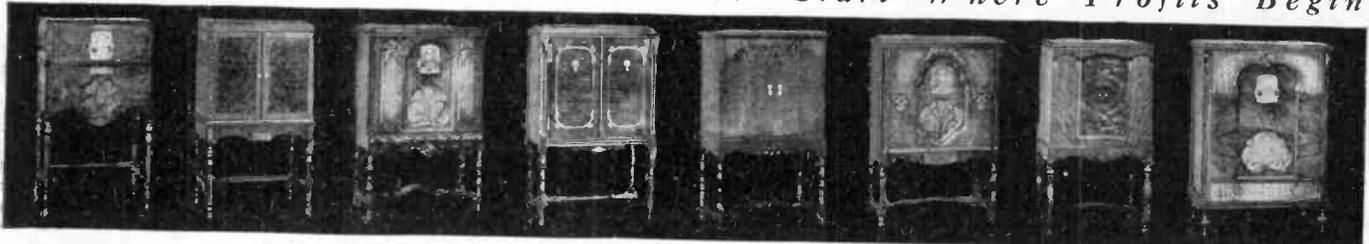


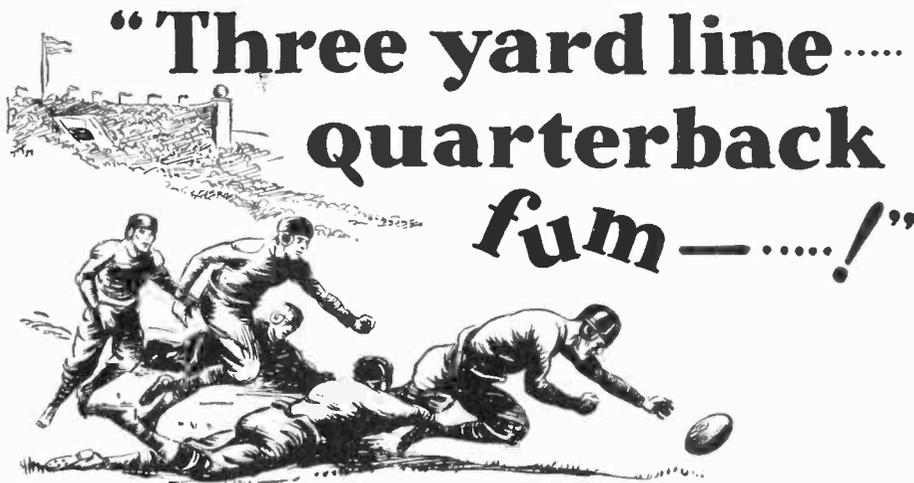
Built Like a *fine* Piano

# Bush & Lane RADIO



A Complete Line—With Prices that Start Where Profits Begin

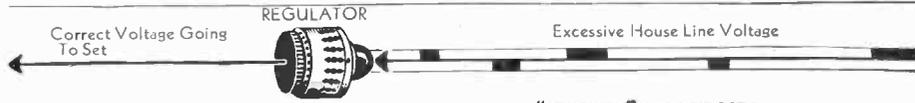




**D**EEP, bitter silence at the game's crisis. A good tube gone dead, because of those ever-recurring "surges." The family frantic—dad raging to know who got the ball. The whole day ruined!

The best of radio tubes do burn out, but they can be protected against overloads and "surges." The Wirt "Safety Valve" Voltage Regulator does the job. You make a profit and your customer is far better satisfied. Prove the Regulator out on your own set—then sell one to every A. C. set customer.

Two sizes—No. 211 (list \$2.25) for sets with seven tubes or less, and No. 211-B (list \$3.25) for sets with dynamic speakers and sets with more than seven tubes. Write us your order today. We will bill through any jobber you name.

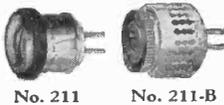


CURRENT OVERLOAD AND VOLTAGE "SURGES" SUPPRESSED

This drawing shows what happens when you use a Wirt Voltage Regulator. The current overload and the voltage "surges" are suppressed. Besides protecting tubes and set, the Regulator in a great

majority of cases improves reception by eliminating the line noises and hum from fan, refrigerator motors, etc. Selectivity is often increased, and purity of tone enhanced.

**WIRT COMPANY**  
5221 Greene St. Philadelphia, Pa.



# WIRT Voltage Regulator

# EBERT

OF RED LION, PA.

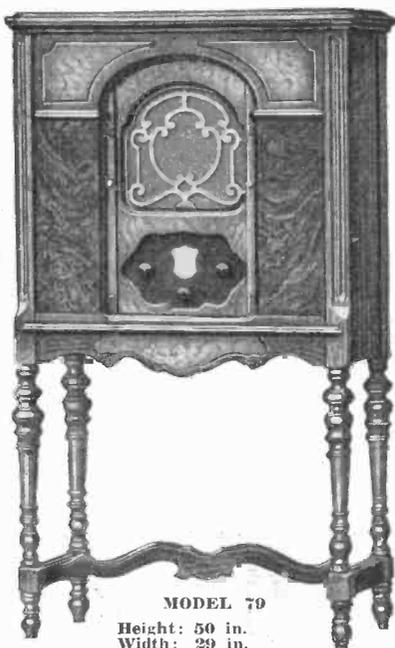
## RADIO CABINETS

*exclusively manufactured to meet the exacting requirements of the*

## ATWATER KENT MANUFACTURING COMPANY

Designed and built by a quality cabinet making organization of 75 years' experience.

EBERT FURNITURE CO. of Red Lion, Pa. *Established 1854*



MODEL 70  
Height: 50 in.  
Width: 29 in.  
Depth: 16½ in.  
List Price, \$42.00

**A. Irving Witz**

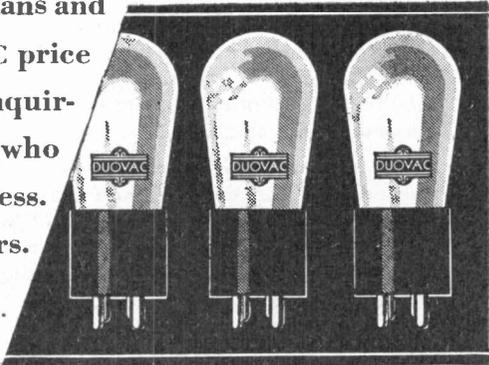
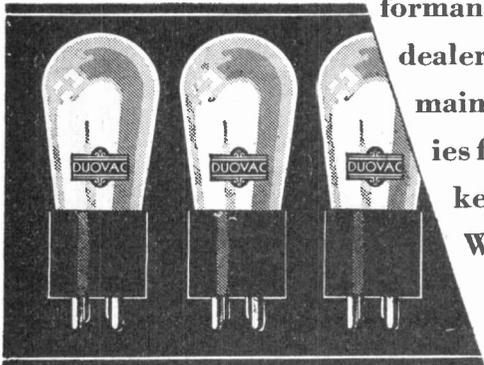
**Martin J. Polikoff**

*National Sales Agents*

611 Widener Bldg., Phila.

# COM COMPARE COMPARE COMPARE

**W**HEN we say that DUOVAC Precision Radio Tubes are made by a new and better process we are ready to back up our statements with facts. And the outstanding fact is that DUOVACS are made in the world's most modern radio tube plant—representing the last word in tube-making machinery. Every piece of apparatus is NEW. Much of it was specially designed. All of it was planned with one object:—the production by precision methods, of radio tubes of absolute uniformity. DUOVAC uniformity sets a new standard of excellence in radio tubes. We invite comparison of the DUOVAC plant, of DUOVAC performance, of DUOVAC advertising plans and dealer cooperation and of DUOVAC price maintenance policy. We invite inquiries from distributors and dealers who keep in step with radio progress. Write today for particulars.



DUOVAC RADIO TUBE CORP.  
360 FURMAN STREET  
BROOKLYN, NEW YORK

# DUOVAC

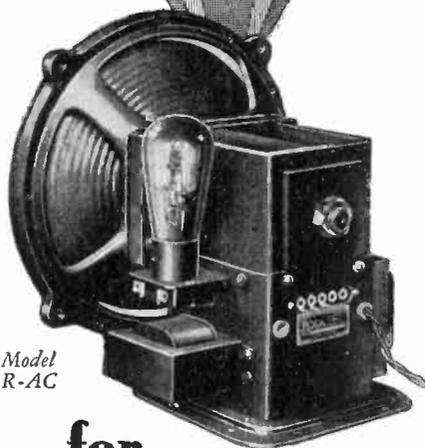
## The \*Precision Radio Tube

\*PRECISION—The quality of being precise, strictly accurate—identical.—Standard Dictionary

# POWER

with

# Unequalled CLARITY



Rola Model R-AC

## for AUDITORIUM Reproduction

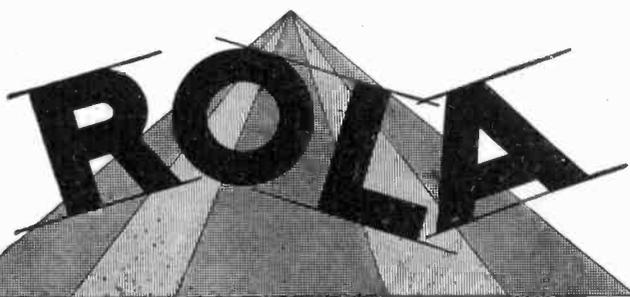
EVERY word and intonation of the human voice is reproduced with the utmost fidelity by the Rola Model R-AC Electro-dynamic speaker for auditoriums, school systems, talking pictures, and large outdoor gatherings.

Every member of the audience, whether in the most distant seat or standing on the outskirts of an open-air assemblage, can be reached clearly and effectively by the proper installation, using Rola Model R-AC. No rattling or blasting at any volume. For further information, write

CLEVELAND OHIO  
2570 E. Superior Avenue

The ROLA COMPANY

OAKLAND CALIF.  
Forty-Fifth and Hollis Sts.



# CORWICO VULCAN LIGHTNING ARRESTER

Backed by a \$100 Guarantee  
Dissipates Accumulated Static Charges  
Biggest Value for the Money  
Is Widely Advertised

LIST PRICE  
**\$1.00**



The Corwico Vulcan Lightning Arrester is manufactured according to the best engineering practice to produce an arrester that will not only protect the radio set against damage from lightning, but will also dissipate accumulated static charges. The Corwico Vulcan Arrester is packed in an attractive two-color box, in which is enclosed the \$100 guarantee.

If your jobber cannot supply you with Corwico Vulcan Lightning Arresters, order a sample carton of 6 direct.

## CORWICO ANTENNA KIT

LIST PRICE  
**\$2.50**



The Corwico Antenna Kit No. 4 contains everything for a complete aerial and lead-in equipment, together with a Corwico Vulcan Lightning Arrester. Considering the high quality of the equipment, this kit cannot be equalled for the money.

If your jobber cannot supply you with Corwico Antenna Kits, order a sample carton of 10 direct.

CORNISH WIRE CO.  
28 Church St., New York

MAKERS OF  
CORWICO Braidite HOOK UP WIRE

# NOW THAT THE PRE-SEASON BALLYHOO IS OVER...

MODEL 53—Nine tubes, with rectifier. Automatic Tuning. Screen-Grid circuit. DOUBLE Push-Pull. Automatic Volume Control. Linear Power Detection. Super-size Syntonic-Dynamic type Speaker. Exquisite console. \$275, less tubes. One of the four great 15th Anniversary Zenith Receivers ranging in price from \$175 to \$700.

*Slightly higher in Far West*



## .. WHAT IS THE SEASON'S LEADER?

Just ask any Zenith Dealer



**ZENITH**  
AUTOMATIC  
→LONG DISTANCE←  
TRADE MARK REG. **RADIO**

ZENITH RADIO CORPORATION • 3620 Iron Street, CHICAGO, ILL.

"Automatic Radio" Owned and Controlled by The Zenith Radio Corp., Chicago, U. S. A. under the following patents—Vasselli 1581145, Re-issue 17002, Heath 1638734, Marvin 1704754, Canada 264391, Great Britain 257138, France 607436, Belgium 331166, Also under other U. S. and foreign patents pending. Licensed only for Radio amateur, experimental and broadcast reception. Western United States prices slightly higher.

# A few of the I. C. A. products shown at the Radio World's Fair—New York



## Resistovolt

now enjoying record sales in 2nd big year

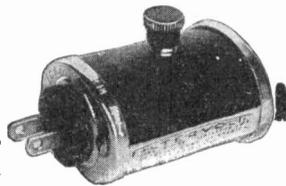
List price \$1.75

A sure-fire seller for 1929-1930 is Resistovolt, for every A.C. set needs one to save blowing out costly tubes, (especially the new screen grid tubes). Resistovolt is quickly attached to the socket or wall plug outlet. Resistovolt not only protects tubes from line surge and overload blow-out but also acts as a fuse to protect the set wiring.

## And, of course, ANTENNAVOLT

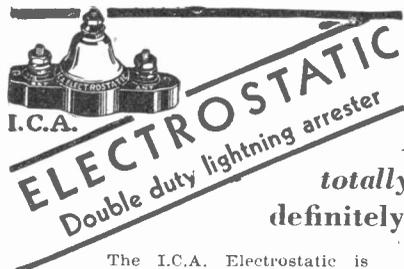
For those who want the blow-out protection, plus the advantage of an indoor aerial, recommend the I.C.A. Antennavolt. Also decreases static and gives sharper tuning and enhances reception.

**FILTERVOLT JR.**  
the \$3-line noise Eliminator—a fast selling accessory because every electric set needs one for best results



The I.C.A. Filtervolt Jr. eliminates line noise caused by the switching on and off of lights, electric toasters, vacuum cleaners, small motors, etc. It may be installed at the source of interference or at the radio set. It is small and compact and quickly applied. All electric sets or sets using eliminators or dynamic speakers require this device for perfect, undisturbed reception.

For line noises caused by heavier apparatus such as elevator motors, electric refrigerators, automatic electric signs and washing machines, the I.C.A. Filtervolt Sr. list price \$15.00 is recommended.



The new principle Lightning Arrester that is totally shielded. It definitely reduces Static

List price \$1.00

The I.C.A. Electrostatic is causing a sensation. For here is a lightning arrester built on an entirely new principle. It not only affords absolute protection for both house and set, but further gives definite reduction in static and general improvement in radio reception. In addition to a special resistance and a condenser and choke coil filter system, it is shielded against the electro-static field set-up between the aerial and ground connections.

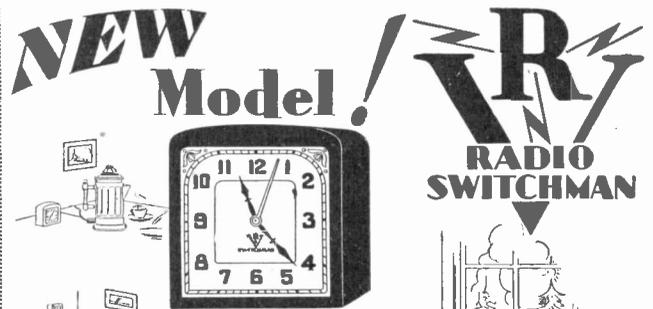
Fully guaranteed, and backed by a \$100 Free Insurance Bond.

The Electrostatic looks like a big dollar's worth, and it is. Include it with every aerial kit, and display it for separate sale.

## INSULINE CORP. OF AMERICA

78-80 Cortlandt Street, New York

Dealers and Jobbers—send for 1929-1930 catalog giving complete items and latest attractive discounts



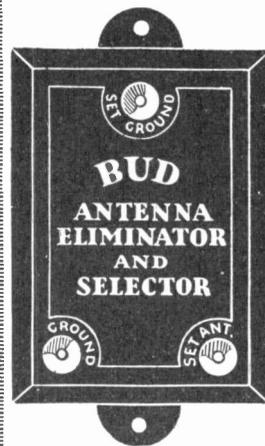
Modernizes **RADIO** and all Electrical Appliances

Turns Current On or Off At Any Time Set

Easy to operate: Plug in, set time, and pull the lever. Complete with six-foot cord and plugs; no wiring necessary. All Bakelite case, dark walnut finish; 4 inches high. Capacity increased to 660 watts. Consumes no current.

**R-V MANUFACTURING CO.**  
MARSHFIELD, MASS.

The Perfect Gift for Man or Woman



No Antenna Needed With a **BUD**

- GIVES GREATER SELECTIVITY
- CUTS DOWN INTERFERENCE
- JUST PUT IT IN A SET, AND THERE'S YOUR AERIAL!

PRICE \$3.50

**BUD RADIO, Inc.**  
Cleveland, Ohio

When you want **Men**

put your advertising for them on the same basis as other publicity.

If you want competent and efficient assistants, experienced in the field served by this journal, you will naturally find such men among our readers—which include the keenest and most progressive men in the industry.

Get in touch with a number of these men and select the one that is best suited for your needs.

**SEARCHLIGHT SECTION**

Only \$2.00 for 25 words 806

  
 C.A.  
**Earl Radio**  
**Announcing**



*The*  
**Centro-Matic Tone Finder**



**\$179** (less tubes)  
 Slightly higher in Canada

**MODEL 33**

With Centro-Matic Tone Finder. All-Electric 8-Tube Set. Neutrodyne. Inductor Dynamic Speaker. Phonograph Pick-Up Connection. Walnut Veneer Cabinet.

**I**N addition to finding each station accurately, instantly, unerringly—the Centro-Matic Tone Finder locates the true center—the rich, pure heart of the tone—free from ragged, blurry “side-bands.”

It is quickly adjustable for *ten* different stations. These stations, if desired, may be only a few dial-degrees apart. One handle operates the entire range.

The C. A. Earl Centro-Matic Tone Finder does far more than the usual so-called “automatic” station selector.

Ask the C. A. Earl distributor in your territory about this remarkable new feature—and if there is a C. A. Earl franchise still available in your territory.

**EARL RADIO CORPORATION**

C. A. EARL, *President*

122 East 42nd Street, New York City

Branch Offices: Chicago, San Francisco, Kansas City



Carton of four Eveready Raytheon B-H Tubes

MANY OF THE  
 "B" ELIMINATORS  
 YOUR CUSTOMERS  
 ARE USING  
 NEED NEW  
**RECTIFYING TUBES**  
 . . .  
**EVEREADY  
 RAYTHEON B-H**

WITH millions of "B" eliminator units sold in the past few years, quite a number must be used by your customers. The great majority of such units are designed and built especially for the original gaseous rectifying tube, the famous B-H. Tell these customers what a surprising difference in reception a new rectifying tube will make. Sell them new Eveready Raytheon Tubes. The market for these tubes is enormous.

You can buy Eveready Raytheon B-H Tubes in handy cartons of four tubes each. Always keep at least one full carton on your counter.

NATIONAL CARBON COMPANY, INC.

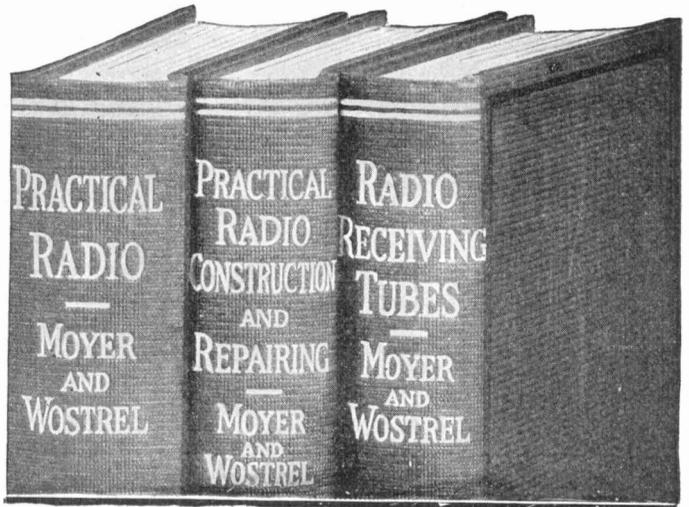
General Offices: New York, N. Y.

Branches: Chicago Kansas City New York San Francisco

Unit of Union Carbide  and Carbon Corporation



Trade-marks



How To Build, Test,  
 Repair, Maintain—  
**Radio Receiving Sets**

Now available in a unit as a radio library, these three well-known radio books, present a sound, complete and authoritative library for radio men and men interested in radio.

**Radio Construction Library**

Three volumes, 993 pages, 561 illustrations, 6x9.

By JAMES A. MOYER, Director of University Extension, Massachusetts Department of Education,

and JOHN F. WOSTREL, Instructor in Radio Engineering and Supervising in Charge of Industrial Subjects, Massachusetts Department of Education.

**Volume I.—PRACTICAL RADIO:** This volume presents the fundamental principles of radio so clearly and simply, that anyone of average training, will be able to read, understand and apply them. In one chapter alone, it gives actual working drawings and lists of materials necessary for the construction of eight typical sets.

**Volume II.—PRACTICAL RADIO CONSTRUCTION and REPAIR:** All of the elementary principles of radio construction and repair are given full consideration. An explanation of the necessary steps together with a description of the accepted practices, for repair and construction of radio are covered.

**Volume III.—RADIO RECEIVING TUBES:** In this volume the essential principles underlying the operation of vacuum tubes are explained in a non-technical a manner as is consistent with accuracy. It gives the construction, action, reactivation, testing and use of vacuum tubes and applications for distant control of industrial processes and precision measurements.

**10 DAYS' FREE EXAMINATION—SMALL MONTHLY PAYMENTS**

Examine these books free for ten days. You will find them invaluable as a home study course and as a reference in the daily radio problems which you meet in your business. Simply fill in the coupon and the books will be sent to you postage prepaid; there is nothing to pay if they do not prove satisfactory. At the end of ten days send us only one dollar and then two dollars a month until the price of seven dollars has been paid. If at the end of the examination period the books are not satisfactory return them to us—No red tape—no agents.

**MC GRAW-HILL  
 FREE EXAMINATION COUPON**

McGraw-Hill Book Co. Inc., 370 Seventh Avenue, New York.

Gentlemen:—Send me the New Radio Construction Library, all charges prepaid, for 10 days' Free Examination. If satisfactory I will send \$1.00 in ten days and \$2.00 a month until \$7.00 has been paid. If not wanted I will return at your expense.

Name .....

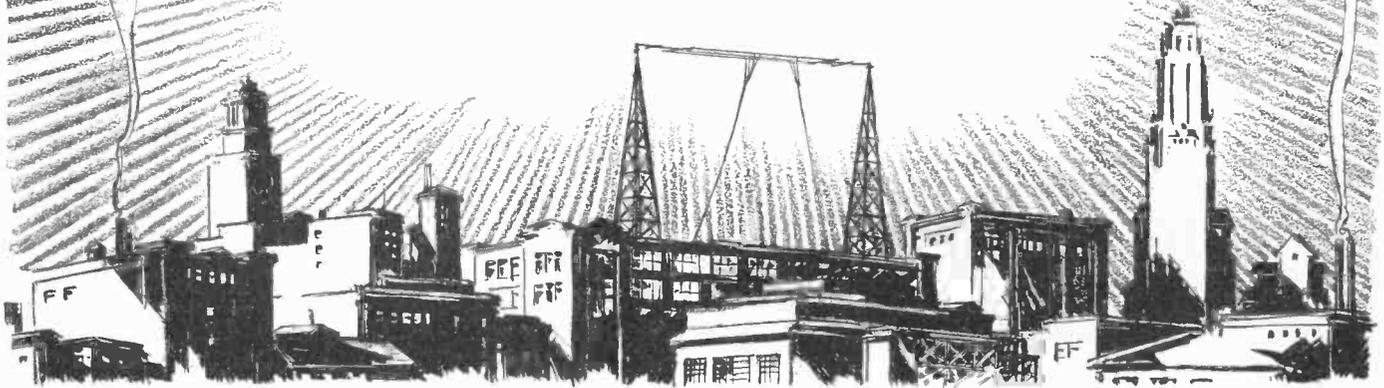
Home Address .....

City and State .....

Name of Company .....

Occupation ..... R. R. 10-29

An  
**INDUSTRY**  
*measures its*  
**PROGRESS**



*Tone quality is the yardstick*

 **C**ONSTANTLY the objective of the radio industry has been better *tone quality*. For successive years all known features of the radio set have been improved and exploited, but today *tone quality* definitely measures the success of any radio receiver. The industry's success now rests on *tone quality* and its future promise of progress rests on *tone quality*.

Many of the industry's leading manufacturers depend for their superiority on the tone quality of Jensen Electro-Dynamic Speakers.

In each case the laboratories of these manufacturers, in collaboration with Peter L. Jensen, adapted these speakers to their specific needs. Dealers who sell these sets pin their faith in making the sale on the superior tone quality and shrewd dealers insist on sets equipped with Jensen Electro-Dynamic Speakers.

Write us for the names of Jensen equipped sets and for information regarding the Jensen Auditorium, Concert and Standard Electro-Dynamic Speakers.

Prices from \$25 to \$100 (including both units and cabinet models). Attractive trade discounts.



# ACME WIRE PRODUCTS

Parvolt Filter and By Pass Condensers  
Coils—Magnet Wire Wound  
Varnished Insulations

Magnet Wire . . . All Insulations

All products made to Recognized Commercial Standards, including those of:

National Electric Mfrs. Assn.  
Radio Manufacturers' Assn.  
American Society for Testing Materials

For 25 years manufacturers and suppliers to the largest and most discriminating users.

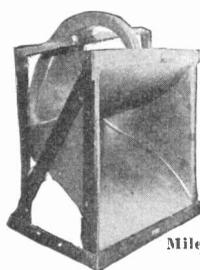
**THE ACME WIRE CO.**  
NEW HAVEN, CONN.

Branch Offices

New York  
52 Vanderbilt Ave.

Chicago  
842 N. Michigan Ave.

Cleveland  
Guardian Bldg.



Miles 10 ft. Horn  
No. M 10

A New Electrodynamic Speaker made along entirely different lines—getting away from antiquated concepts and methods.

Loud... Clear... Life-like  
—that's **MILES**



Type M 100  
Dynamic Unit  
5 1/2 x 5 1/2.

New heights of reproducing power and realism, based on years of intensive research and development. Performance that has won leading manufacturers and dealers of Synchronous, Non-Synchronous and Public Address Equipment . . . that will win you by a single trial.

M 9 Combination Unit and 9 ft. Horn . . . . . List \$230.00  
M 10 Combination Unit and 10 ft. Horn . . . . . List \$275.00  
M 12 Combination Unit and 9 ft. Junior Horn . . . . . List \$185.00  
M 3 1/2 Combination Unit and 3 1/2 ft. Trumpet . . . . . List \$170.00

NOW READY. New Miles M 1000—Junior Electrodynamic Air Column Unit. Send today for Catalogue.

**MILES MANUFACTURING CORP.**

"Builders of Acoustical Reproducers Since 1923"

31 West 21st St. Phone GRAmery 5081 New York City  
Cable Address: "Milesman" N. Y.

# CANNON-BALL

Is the Sales Winning Name

For popularly priced Magnetic Cone, Air Column Speakers and balanced Armature Units for Cone, Air Column Speakers and Phonograph, made by the largest manufacturers of

HEADSETS

All Sales Makers. Write for Details.

Cannon & Miller Company, Inc.  
SPRINGWATER, N. Y.

**ANACONDA**  
**MAGNET WIRE**



Plain Enameled  
Cotton Covered  
Silk Covered

**ANACONDA WIRE & CABLE CO.**  
Magnet Wire Dept.  
MUSKEGON — MICHIGAN.

You are reading  
*the Only*

radio or music trade publication that has been admitted into membership of the Audit Bureau of Circulations and the Associated Business Papers.

Radio Retailing has measured up to unusually exacting standards of reader-selection, reader-interest and reader influencing.

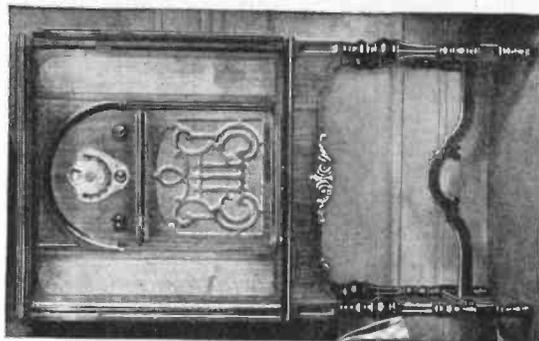
—a McGraw-Hill publication, to be sure.



"Greatest on the market!" Wild claims and fancy promises never blind the *intelligent* auto-mobile buyer to fundamental facts! He insists on knowing "What company makes this car — and what is its reputation?" He makes positive he will not be left with an "orphan" on his hands! He makes sure the car represents the culmination of years of fine craftsmanship and highly technical experience! Then he buys — *with absolute confidence!* . . . In radio, that same situation holds true! The *intelligent* dealer first demands mechanical excellence plus beauty of cabinet! Then he thoroughly investigates the company. Finally, he selects that line which he knows the public will buy *this* year and *next* year and *years* after that, with complete confidence in the product — and with increasing profit to himself!

# KOLSTER RADIO

Copyright 1929 by Kolster Radio Corporation, Newark, N. J.



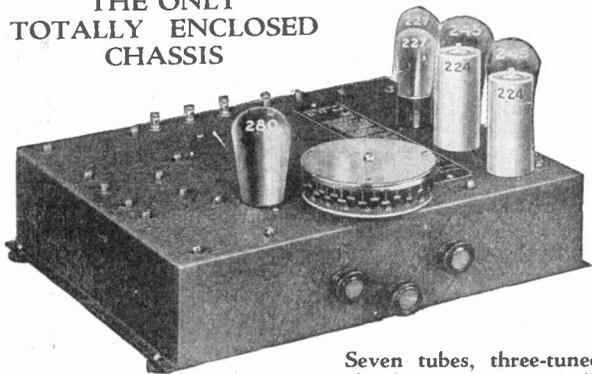
**K-43** Handsome cabinet with doors of figured butt walnut and two tone panels. Seven tubes and rectifier. Selector tuner. *Equinoused* dynamic repro-ducer. Screen grid tubes. Push-pull amplification with two type 345 tubes. Price, less tubes . . . . \$175

# Leadership

In the field of strictly chassis manufacturers, Audiola, by virtue of the unquestionable quality of its product, has assumed definite leadership.

This position has been attained through the inherent quality of the Audiola chassis. The engineering skill represented in its design, the superior workmanship and the quality of its component parts combine to make it the outstanding product in its class.

**THE ONLY  
TOTALLY ENCLOSED  
CHASSIS**



**MODEL  
7330**

Seven tubes, three-tuned circuit, two 224, two 227, two 245 and one 280 tube.

Faithful tone reproduction, sensitivity on distance reception and high degree of selectivity insure satisfaction to your customers.

**True Screen Grid**  
Power Detector—No Hum  
D. C. Dynamic  
245 Tubes in push pull at full recommended voltage.

# AUDIOLA

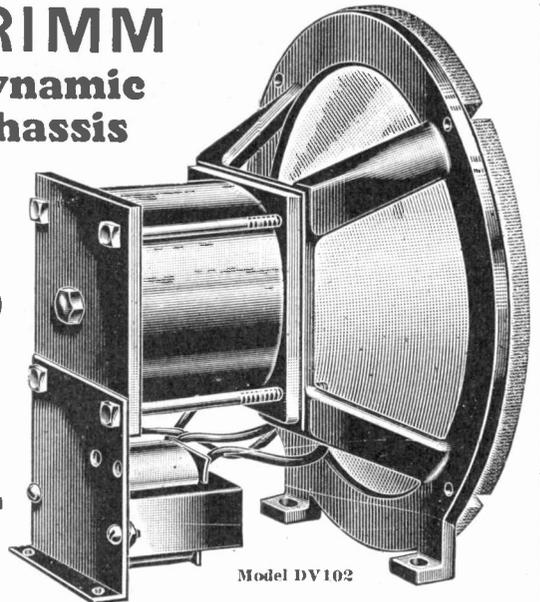
## RADIO COMPANY

430 So. Green St., Chicago, Ill.

## TRIMM Dynamic Chassis

**Model  
D100  
\$20**

**Model  
DV102  
\$24**



Model DV102

Model D100 operates from a chassis of the alternating current type where the output energy is supplied by the conventional type of power amplifier tubes in push-pull, this energy being fed through an output transformer which matches the voice coil and where the power pack supplies direct current for energizing the field coil.

Model DV102, illustrated above, is provided with an output transformer which matches the conventional type of power amplifier tubes and the voice coil.

*Send for full information on wide range, true fidelity, extreme volume with mellowness and entire absence of blasting or distortion.*

**TRIMM RADIO MFG. CO.**

**547 W. Harrison Street, Chicago, Illinois**

## Sell ELECTRAD Voltage Controls

*and You Sell PERFORMANCE*

ELECTRAD PERFORMANCE is known wherever voltage controls are used. It is the result of careful design and capable manufacturing. Yet the economies of mass production bring ELECTRAD prices down to levels which appeal to the pocket-book.

The New ELECTRAD Covered Resistance is the first choice of people who buy for PERFORMANCE. Its ample margin of safety, and unique structural features make for longer life. Made in sizes and wattage ratings for every usual radio purpose.

Mail the coupon for complete data.

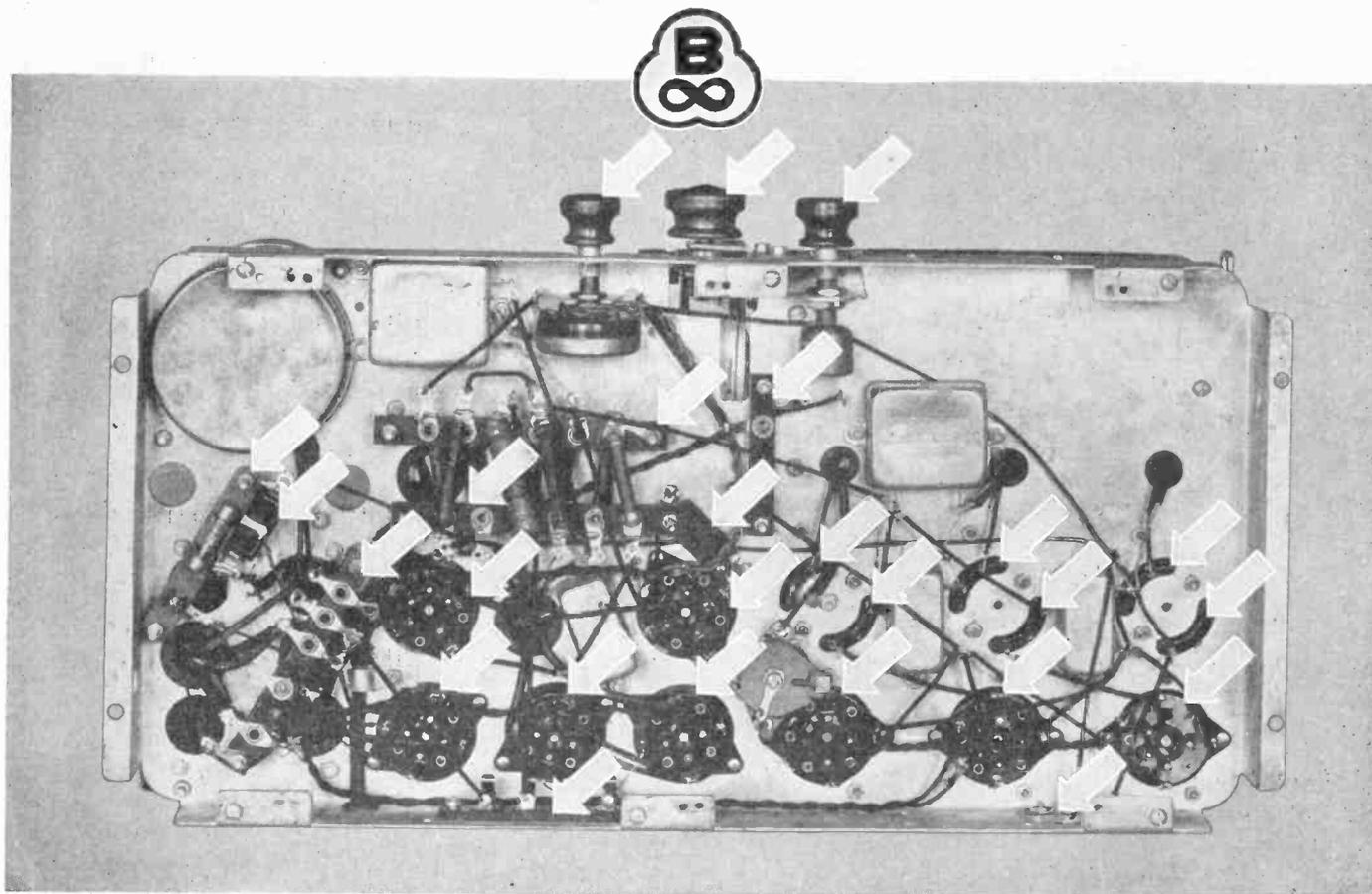
Patents Pending



175 Varick Street, New York

**ELECTRAD**  
INC.

ELECTRAD INC., Dept. RB10, 175 Varick Street, New York, N. Y.  
Please send covered resistance data.  
Name \_\_\_\_\_  
Address \_\_\_\_\_



Chassis of The Crosley Unitrad Receiver, with Bakelite Insulation indicated by arrows. Made by The Crosley Radio Corp., Cincinnati, Ohio.

## Crosley quality—in quantity production safeguarded by Bakelite Insulation

**T**HROUGH designing skill, the new "Unitrad" provides Crosley quality at a lower price. Simplified manufacture and compact assembly demanded the use of many small strong parts of high insulation value. Previously used with complete satisfaction, Bakelite Materials were again adopted to safeguard Crosley performance.

In this new receiver, sockets, condenser supports, coil forms, terminal strips and many other parts are of Bakelite Materials because these possess this permanent insulation value so essential to continuously fine reception. Bakelite

Materials do not deteriorate even when exposed to adverse climatic conditions. They do not swell, shrink or split.

Bakelite Materials are used by the leading manufacturers of receivers, accessories and parts. Dealers will find it an excellent practice to be guided by the experience of the men who have perfected radio reception and make sure that the radio equipment which they handle is Bakelite Insulated.

Write for Booklet 39, "Bakelite in Radio".

### BAKELITE CORPORATION

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

# BAKELITE

REGISTERED U. S. PAT. OFF.

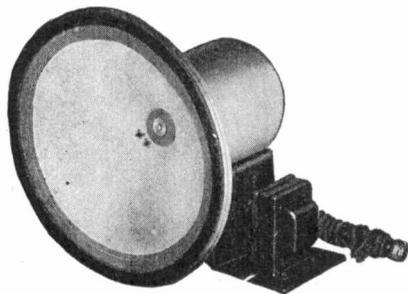
THE MATERIAL OF  A THOUSAND USES

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

# YOUR RADIO

Can be only as good as its

# SPEAKER



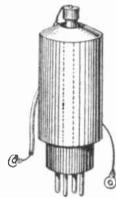
"The Speaker of the Year"

Perfect your reception with a  
**WRIGHT-DECOSTER**  
REPRODUCER

Write Department "E" for descriptive folder  
of chassis and different cabinet models.

Wright-DeCoster, Inc.  
St. Paul, Minnesota

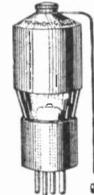
CAPS MADE OF LEAD ONLY METAL USED FOR XRAY AND RADIUM SHIELDS



TYPE 224

### SCREEN GRID TUBE SHIELD WITH SHIELDED LEAD

List Price 60c.  
Net Wt. about 4 ozs.



TYPE 227

### SHIELD TYPE NOPHONIC TUBE CAP

List Price 35c.  
Net Wt. 5 ozs.



TYPE 200

### PLAIN TYPE NOPHONIC TUBE CAP

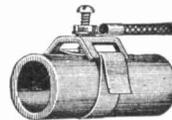
List Price 25c.  
Net Wt. 5 ozs.



TYPE 199

### NOPHONIC TUBE CAP FOR 199 TUBES

List Price 25c.  
Net Wt. 2 1/2 ozs.



"SADDLE"  
Approved  
Ground Clamp  
1", 2" and 3"  
sizes

Mertz Spec. Co.  
1306 Stockton St.  
Wilmington, Del.

# Cunningham

RADIO TUBES



Standard  
Since 1915

Quality Safeguarded from within

Performance that reflects in-built  
quality has inspired a nation's con-  
fidence in the name Cunningham.

E. T. CUNNINGHAM, INC.

New York Chicago San Francisco Dallas Atlanta

Why let A.C. noises ruin your sales and  
run up high service costs?



Now you can boost set sales  
with this added profit source

## FILTROL

(Interference Filter)

SPECIAL  
INTRODUCTORY  
OFFER

As a special offer, for a  
limited time only, we will  
ship any dealer in the  
U. S. 5 No. 450 FILT-  
ROLS for \$8.95 (List  
Price, \$17.50), C.O.D.  
or cash with order.

Included in this offer are  
complete sales helps; 3-  
color counter card and 3-  
color window streamers.  
Mail your order today.

Plugs in ahead of such A.C. noise  
creators as fans, blowers, vacuum  
cleaners, heating pads, etc. Pos-  
itively stops these cracks and  
snaps that spoil reception. Sell  
them when you sell a set, and  
save service calls which eat up  
profits. Your service men can  
sell them, too, when they're  
trouble-shooting. With our  
counter display, they'll sell them-  
selves.

We sell through jobbers

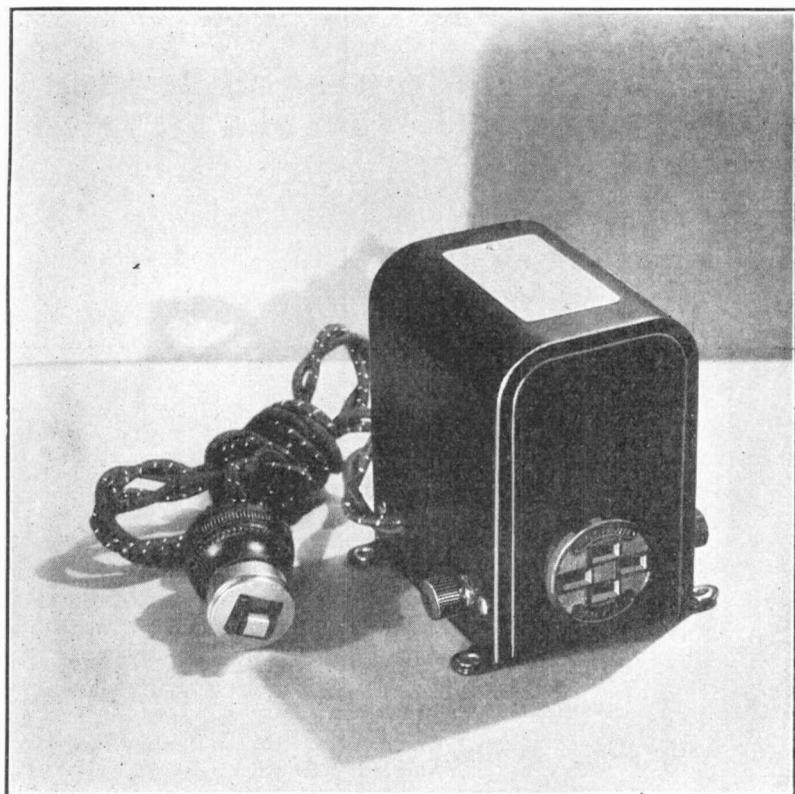
Makers of the popular Thermatrol complete line of  
Interference Devices and Voltage Controls.

# Thermatrol

TRADE MARK

SPRINGFIELD  
MASS.

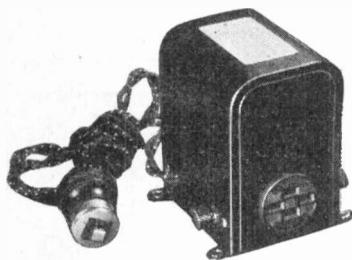
MANUFACTURING COMPANY



THE SENIOR

# LOCAL STATIC!

—brings Profits  
to Dealers who Sell



THE JUNIOR



Produced by the manufacturers of the Muter Ultra-Dynamic Speaker—the new speaker of glorious tone. Write for details today on the sales possibilities this speaker offers you—in replacements for old sets equipped with the magnetic type.



## MUTER DEPENDABLE INTERFERENCE FILTERS!

**C**LEAR, perfect music coming from the speaker. And then, suddenly—crackle—sizzle—roar! Probably only a nearby motor or electric appliance. But fatal, just the same, to radio enjoyment.

Every local disturbance of this sort means a prospect for you. Help your customers—and yourself—by selling them MUTER DEPENDABLE INTERFERENCE FILTERS to remove the nuisance of man-made static.

Made in two types:

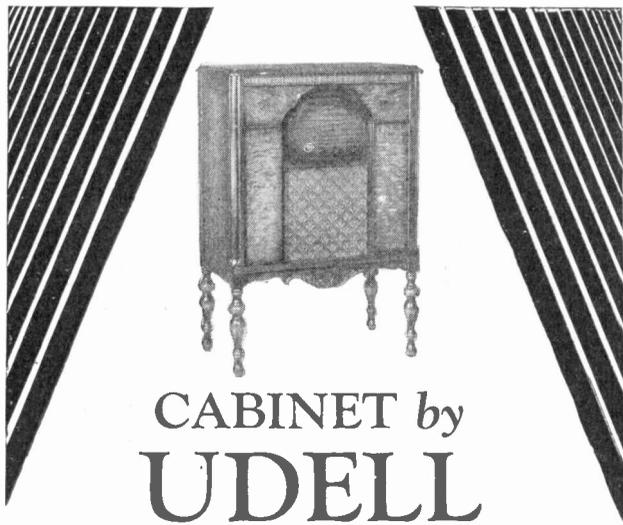
1. *The Junior*: For direct connection to radio set. Capacity type, with large factor of safety for use on 110 volt A. C., Priced at \$5.00.
2. *The Senior*: For use in connection with electrical or mechanical devices causing local disturbances. Capacity inductance—rated for use on 110 volt A. C., on devices not exceeding 5 amp. current draw. The Senior may also be used in the same manner as the Junior, in direct connection with the radio set, offering an additional inductance to eliminate disturbances. Priced at \$7.50.

Write now for full information  
on this profit-making filter.

**LESLIE F. MUTER COMPANY**

8440 South Chicago Avenue

Chicago, Ill.



## CABINET by UDELL

Fifty-six years of fine cabinet making are back of the Udell name.

New model and new designs are now being offered, but the same fine workmanship that has characterized the product of the Udell Works for a generation still segregates its product from the ordinary.

Now ready—in convenient brochure—beautiful set of gravure printed photographs of the complete new Udell line of cabinets. A set will be sent free to distributors and dealers upon request.

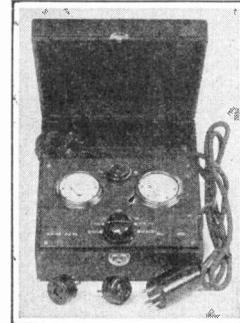


THE UDELL WORKS

28th St. at Barnes Ave. Indianapolis, Ind.

## Now! —An Improved Beede Combination Tube and Set Tester

No. 250  
With Screen  
Grid Test  
List Price  
\$25.00  
Dealer's  
Price  
\$15.00



No. 20\*  
Without  
Screen Grid  
Test  
List Price  
\$20.00  
Dealer's  
Price  
\$12.00

### It Tests Screen Grid Tubes

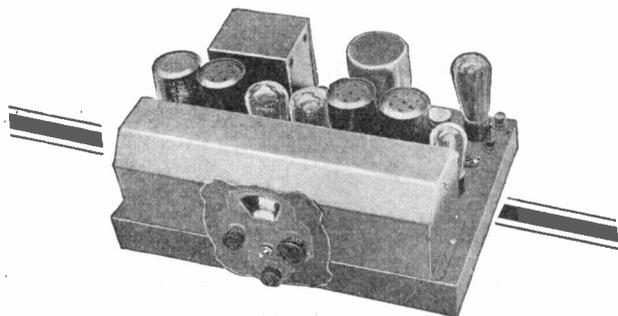
The advent of the screen grid set prompted the development of a new and better combination tube and set tester, with special attachment to test screen grid tubes. It makes all ordinary tests on A.C. and D.C. tubes and receiving sets also.

Every service-man, set builder, radio store and radio fan—should have this improved instrument. It has a large market—it offers a profit.

Get one for your own use. Write for details.

### Beede Electrical Instrument Co.

Manufacturers of Quality Battery Meters, Meters for Radio Use, Etc.  
PENACOOK, NEW HAMPSHIRE



## LOOK! Screen-Grid plus Power Detection—Under Your Own Brand

Cash in big this season by offering radio's newest and most modern development—using your own brand name. You set your own resale price to meet every market condition—you banish the bugaboo of one-sided contracts and restricted territories, and by purchasing direct from factory, you get every possible price concession. Most important, you preserve your greatest asset—your trade identity and good will.

### This Premier Has Every Needed Feature

The new Premier screen-grid chassis, Model 724, 7 tubes (8 with rectifier), is illustrated. A great performer. Full tone, volume, pleasing eye value. Many features—power detection, 100% shielded, all metal, D.C. dynamic speaker terminals, phonograph pickup, safety fuse and latest tube combination using four 224's, one 227, two 215's in push-pull and one 280 rectifier.

Write for full details

## PREMIER ELECTRIC COMPANY

1824 Grace Street, CHICAGO

Established 1905

## More Profits This Fall and Every Season Hereafter

# Showcarder

Make your own Show Cards, Streamers and Price Tickets. With SHOWCARDER you or any one of your employees can dress up your store and windows with attractive signs that bristle with "selling talk." No previous experience necessary.

No need of a long letter. Simply write and say, "Send me Details Free."



## Showcarder, Inc.

2312 University Ave., St. Paul, Minn.

## WASMUTH-GOODRICH COMPANY



Fine Radio Cabinets  
fashioned by  
Master Craftsmen

103 Park Ave., New York  
Peru, Indiana



# out of eighty!

**A**N internationally-known producer of receiving sets . . . a company with a sharp eye for values . . . recently subjected to microscopic test eighty different makes of radio cabinets.

Digging deeper than external effects, this manufacturer checked each cabinet for correctness of engineering, finish, construction, acoustics and every other detail bearing on intrinsic value.

Two rated 100 per cent . . . and one was ADLER-ROYAL.

*Place any ADLER-ROYAL beside any other cabinet in the same price class and let your customer decide. That's all we ask.*

ADLER MANUFACTURING CO., *Incorporated*, LOUISVILLE

**ADLER-ROYAL**  
RADIO  CABINETS



## *Just the place for your Chicago Office*

One of the choicest locations in Chicago — for rent at an attractive figure. An entire floor in the brand new McGraw-Hill building, at 520 North Michigan Avenue. Nine thousand square feet gross.

Handsome building, beautiful lobby, five electric elevators, extraordinarily well-lighted and ventilated. Every convenience of most modern type of office building.

Ideal for manufacturer's sales offices, publisher's representatives, advertising agencies, life insurance or investment houses.

**WIRE**

**WRITE**

**OR PHONE**

C. H. Thompson, McGraw-Hill Publishing Company, Inc.  
520 North Michigan Avenue - - - - - Chicago, Ill.

# GULBRANSEN

## *Announces A Coast-to-Coast*

# JOBBER ORGANIZATION!

— ready to serve you! An impressive group of jobbers now offers the Gulbransen Precision-Built Radio to the radio dealers of America. They offer, also, display material and dealer helps of unusual attractiveness—as well as a powerful newspaper advertising campaign, plus national broadcasting! Write to the jobber in your territory for complete details of the Gulbransen plan. Jobbers! If your territory is not listed here—write!



SCREEN GRID

**\$149<sup>50</sup>**

*less tubes*

The Gulbransen highboy console of fine walnut and beautiful veneers—product of true guild craftsmanship.

Smart lowboy console at \$139.50, less tubes.

It's coming! A combination at \$235—Watch for announcement!

- |                              |                    |                               |                      |
|------------------------------|--------------------|-------------------------------|----------------------|
| ADROLA CORP.                 | Long Island, N. Y. | W. E. JONES PIANO CO.         | Mansfield, Ohio      |
| ALABAMA ELECTRIC SUPPLY CO.  | Birmingham, Ala.   | LEATHERMAN CO., F. A.         | Atlanta, Ga.         |
| ALLING, THE R. B. CORP.      | Detroit, Mich.     | LEBAIR AUTO SUPPLY CO.        | Trenton, N. J.       |
| ANDERSON-NEWCOMB CO.         | Huntington, W. Va. | McKENZIE-WALLACE SERVICE CO.  | Missoula, Mont.      |
| ATLAS PLAYER ROLL CO.        | Newark, N. J.      | MILLS-LUPTON SUPPLY CO.       | Chattanooga, Tenn.   |
| AUTOMOTIVE SUPPLY CO.        | Minneapolis, Minn. | MYERS & CO., INC., M. P.      | Plattsburg, N. Y.    |
| BERGMAN HDWE. CO.            | Buffalo, N. Y.     | NATIONAL SUPPLY CO.           | Cedar Rapids, Iowa   |
| BRAITERMAN-FEDDER CO.        | Baltimore, Md.     | NORTH COAST ELECTRIC CO.      | Portland, Ore.       |
| CAROLINA AUTO SUPPLY HOUSE   | Charlotte, N. C.   | NORTH COAST ELECTRIC CO.      | Seattle, Wash.       |
| COLONIAL ELECTRIC SUPPLY CO. | Philadelphia, Pa.  | NORTH COAST ELECTRIC CO.      | Tacoma, Wash.        |
| ELLIOT & WADDINGTON          | New Castle, Pa.    | OHIO BATTERY & IGNITION CO.   | Canton, Ohio         |
| ELLIS ELECTRIC CO.           | Rockford, Ill.     | O. M. C. SUPPLY CO.           | Pittsburgh, Pa.      |
| ENTERPRISE CO., THE          | Cincinnati, Ohio   | RICH ELECTRIC SALES CO.       | Cleveland, Ohio      |
| FOX ELECTRIC SUPPLY CO.      | Elgin, Ill.        | ROCK ISJ AND HARDWARE CO.     | Rock Island, Ill.    |
| FRANKFURTH HDW. CO.          | Milwaukee, Wis.    | SMALL & SCHELOSKY CO.         | Evansville, Ind.     |
| FROMAR CO., THE              | Harrisburg, Pa.    | SMITH-PHILLIPS MUSIC CO.      | East Liverpool, Ohio |
| FUETTERER CO., W. E.         | St. Louis, Mo.     | SMITH, HASSLER, STURM CO.     | Indianapolis, Ind.   |
| GOOLD CO., J. E.             | Portland, Me.      | STORZ WESTERN AUTO SUPPLY CO. | Omaha, Neb.          |
| GREER-LAING CO.              | Wheeling, W. Va.   | STREET CO., CLAUDE P.         | Nashville, Tenn.     |
| LOUIS GRUNEWALD CO., INC.    | New Orleans, La.   | HARRY F. SHUEY PIANO CO.      | Dayton, Ohio         |
| HALPERIN DISTRIBUTING CO.    | New York, N. Y.    | TOWNLEY METAL & HDWE. CO.     | Kansas City, Mo.     |
| HERST CO., WILLIAM           | Chicago, Ill.      | WHITNEY SPORTING GOODS CO.    | Denver, Colo.        |
|                              |                    | WINTER, KARL                  | Salt Lake City, Utah |

The Gulbransen Symphony Orchestra, under the direction of Dr. Henry Hadley, will be heard over a national chain of the Columbia Broadcasting System every Saturday night from 9:30 to 10:00 P. M. (E. S. T.) and from 8:30 to 9:00 P. M. (C. S. T.)

GULBRANSEN COMPANY, Kedzie, Sawyer, Spaulding & Chicago Aves., CHICAGO, ILL.

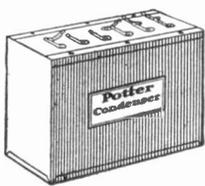
# GULBRANSEN

## PRECISION-BUILT RADIO

*Manufactured Complete by the World's Largest Maker of Pianos*

# !ATTENTION! SERVICE MEN

Quality replacement blocks for "B" eliminators and power supply units for Service and Repair Men. Each block possesses POTTER HIGH GRADE QUALITY, required to give long life operation.



Code	Eliminator used with	Price
4341	Majestic Standard "B"	\$10.00
4343	Majestic Special Master	11.00
4347	Majestic Super "B"	12.00
4359	Majestic Master "B"	11.50
4360	Brown "B" Super Power (Green Brown)	11.00

22-54	Zenith ABC Power Supply ZE-9	\$12.00
572-S	Mohawk AC (27-28) 226 Type Power Unit	12.00
572-S	Stewart Warner	12.00

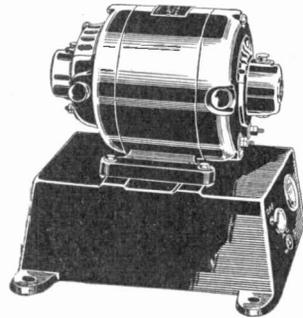


**The Potter Co.**  
North Chicago, Illinois  
A National Organization at Your Service

# NOW The Great Farm Market is Opened for A.C. Radio Sales

The JANETTE 32-Volt Rotary Converter enables the radio dealer to count every farmer with a 32-volt D.C. lighting plant as a first-class A.C. radio prospect. Go after this big new market NOW!

JANETTE Rotary Converters have been the standard of the A.C. radio and talking machine industries for years. Scientifically built filter cuts out all D.C. hum. Equipped with starter and voltage regulator. Voltmeter obtainable if desired.



Write for Bulletin 729-C.

**JANETTE MFG. CO.**  
555 West Monroe St.,  
Chicago

Singer Bldg., Real Estate  
149 Broadway, Trust Bldg.,  
New York Philadelphia

Type C-16-F. Capacity 110  
watts. Shown equipped with  
Filter Starter and Voltage Regu-  
lator, and Voltmeter.

# SEARCHLIGHT SECTION

EMPLOYMENT and BUSINESS OPPORTUNITIES—SURPLUS STOCKS—DISCONTINUED MODELS

**UNDISPLAYED—RATE PER WORD:**

Positions Wanted, 8 cents a word, minimum \$1.25 an insertion, payable in advance.  
Positions Vacant and all other classifications, 12 cents a word, minimum charge \$2.50.  
Proposals, 40 cents a line an insertion.

**INFORMATION:**

Box Numbers in care of any of our offices count 10 words additional in undisplayed ads.  
Discount of 10% if one payment is made in advance for four consecutive insertions of undisplayed ads (not including proposals).

**DISPLAYED—RATE PER INCH**

1 inch ..... \$7.50  
2 to 3 inches ..... 7.25 an inch  
4 to 7 inches ..... 7.00 an inch  
Rates for larger spaces, or yearly rates, on request.  
An advertising inch is measured vertically on one column, 3 columns—30 inches—to a page. Radio Retailing

**POSITIONS WANTED**

EXPORT manager, now employed as assistant, seeks position with company, preferably manufacturing table models and panel sets. PW-105, Radio Retailing, Tenth Ave. at 36th St., New York.

RADIO man desires position, preferably interference work. Eight years' experience. Competent. PW-104, Radio Retailing, 520 No. Michigan Ave., Chicago, Ill.

**RADIO-TECHNICIAN IN 90 DAYS**

The RADIO INDUSTRY pleads for "Registered" Radio Experts. This field offers unlimited opportunity and good income. The School of Engrg. is the only institution in the country whose course is approved by a radio trade asso. The Federated Radio Trade Asso. and the Wisc. Radio Trade Asso. have both investigated and approved our training. Our graduates are "registered" without examination. We offer thorough, complete and practical radio training. The course covers the entire field of radio, including television. The School of Engrg. has ably helped its students by securing for them part time employment. It pays to look into our "Earn While You Learn" policy. Send for catalogue describing opportunities offered by this industry to trained men.



**SCHOOL OF ENGINEERING**  
of Milwaukee

RR-10 163 E. WELLS ST., MILWAUKEE, WISC.

**SPECIAL NOTICE:**

## To the Radio Industry

Advertising in connection with legitimate offers of surplus stocks and discontinued models of radio merchandise is acceptable in this section of "Radio Retailing."

Extreme care will be exercised by the publishers to prevent the use of advertising in the Searchlight Section to encourage price cutting on current models of merchandise or equipment. Nor will advertising which invites violation of the dealer's contract with the manufacturer be acceptable.

All merchandise offered in the Searchlight Section must be accurately and fully described and must be available on order.

**FOR SALE**

## Radio Battery Business

Long Established Radio and Battery business on main thoroughfare in East Orange, N. J. Exceptional opportunity for buyer.

FS-110 Radio Retailing,  
Tenth Ave. at 36th St., New York City

**SALESMEN WANTED**

**Salesmen**

To sell line of all types of speakers, radio and theater. Good opportunity with live organization. SW-106, Radio Retailing, 520 No. Michigan Ave., Chicago, Ill.

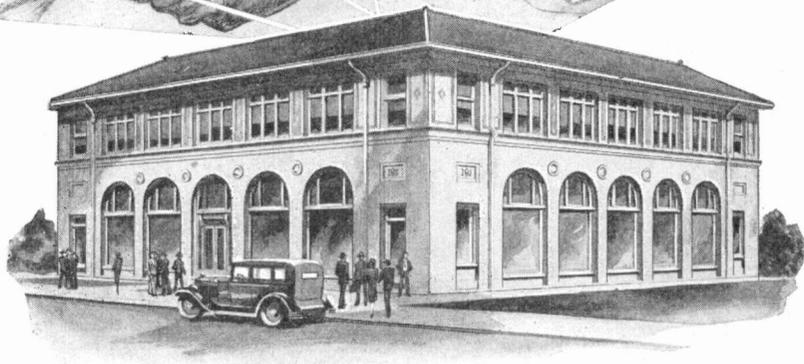
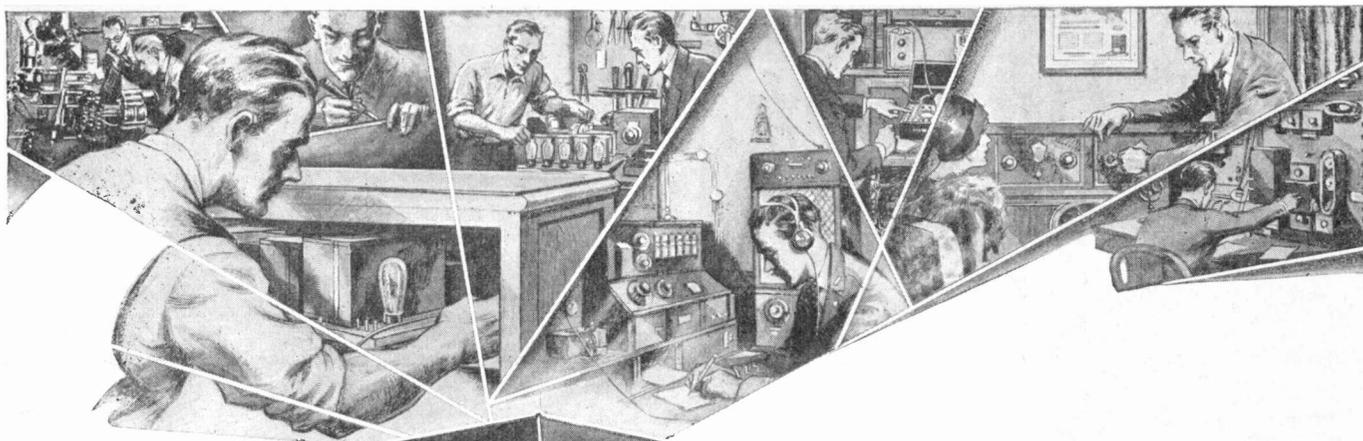
**REPRESENTATIVES AVAILABLE**

Manufacturers Representative Selling Direct to Dealers

Wants high grade merchandise; radio and electrical. Also late discontinued numbers at a price. Act quick. RA-108, Radio Retailing, Bell Telephone Bldg., St. Louis, Mo.

SALES representative available. Twelve years experience in lines electrical to hardware and electrical jobbers, department stores and industrial in Western Penna. and Eastern Ohio. Proposition must be meritorious and remuneration of not less than \$6,000 per year net salary or commission basis. Age 36. RA-109, Radio Retailing, Tenth Ave. at 36th St., New York.

(Continued on Page 180)



## Keep in touch with G.H.Q. for **TRAINED RADIO MEN**

**FIFTEEN** years of service to Radio—Ten thousand men!

Employment problems can be simplified when you keep in touch with General Headquarters for Trained Radio Men. N. R. I. stands ready to fill the gaps in the front line. Vacancies due to promotion, to expansion, to any other cause, can be filled quickly with seasoned men from our trained reserve.

In 1914 we started out with the idea that the industry needed picked men with training of professional grade and the determination to get ahead.

We believed that Progress was not a solitary abstraction, but rather the sum-total of the growing achievements of thousands of men. We believed that by training these men and making these individual achievements possible, we would supply the industry with the most vital element of its progress.

Events have justified us in these beliefs. Today, more than ever before, it is our purpose to weld ambition and training together, and put their combined power in the front rank of industrial advance.

Today we direct ten thousand men in home-study. We give them a course that covers Radio

from the principles of elemental electricity to the business of marketing Radio equipment. It is a "case system." The student is supplied with six construction units from which he builds up all the major circuits. After he builds them, he dismantles and repairs them, and studies them. Texts are provided, so that he learns the theory as well as the practice. He is examined, and is encouraged to make technical inquiries. Three hundred thousand special "exams" are graded every year, and over twenty thousand technical questions are explained.

These young men—two thousand five hundred graduates—and ten thousand students coming up—are backed by the oldest and largest Home Study Radio Training Institute in the United States. Most of them are already employed in some capacity in the Radio or Electrical business. They know "what it's all about" and they are paying their own money and leisure time to get ahead in their chosen profession. Their ambition is not of the day-dream kind; it is purposive and well-directed.

You can get National Radio Institute men anywhere within a few days. You will find them capable, and ready to work. All they ask of you is a chance to prove their worth. They will pay you ample dividends in sound knowledge, and honest hard work.

### N. R. I. Men are Making Good with

- Atwater Kent
- Amer. Bosch Magneto
- Brunswick
- Crosley
- De Forrest
- Freed Eisemann
- Firestone
- General Electric
- Jenkins Television
- Sears Roebuck
- Stewart Warner
- Stromberg Carlson
- Victor Talking Machine
- Westinghouse
- Western Electric
- Thos. A. Edison, Inc.
- R. C. A.
- And many more.



"Headquarters for Trained Radio Men" is a booklet for employers. We have spent hundreds of thousands of dollars equipping ourselves to help you. Our assistance costs you absolutely nothing—it can be worth a great deal.

The National Radio Institute,  
Dept. T-RR  
16th and U Sts., N. W.,  
Washington, D. C.

Please send me your Free Booklet, "Headquarters for Trained Radio Men."

Name .....

Address .....



**NATIONAL RADIO INSTITUTE**  
16th and U Streets N.W.  
WASHINGTON, D.C.

**HEADQUARTERS FOR  
TRAINED RADIO MEN**



# The Bargain of Bargains!

Either of these KOLSTER items at less than one-fifth of the original list price



Model K-5  
Height 42", width  
25½", depth 19"

## Buy As You Sell

To give every dealer the opportunity of selling these KOLSTER items with the least investment and the most profit we make this

### SPECIAL OFFER

Buy either item as needed at the top price but—if you order a total of 5 or more of one or the other within a period of 30 days from date of your first order, we will allow you the 5-lot price on all purchased.

### GOING FAST

Wide-awake dealers are reducing the limited stock we have remaining every day. Repeat orders show how fast these items move. Start your first order on the SPECIAL OFFER today.

Licensed Under Patents of the Radio Corp. of America and  
Lectophone Corp.



Model 6-H  
Height 53", width  
27", depth 18½"

## KOLSTER ELECTRO-DYNAMIC REPRODUCER

Combined with 210 Power Amplifier  
and "B" Supply Unit

### Features

1. Electro-Dynamic Reproducer (10¼ in. dia.)
2. 210 Power Amplifier. Fine tone quality.
3. Supplies "B" voltage, if desired.
4. Can be used with any electric or battery set.
5. Complete A.C. Electric operation.
6. Beautiful pencil-stripped walnut cabinet.

This finely matched, rugged unit comprises a complete heavy duty Electro-Dynamic Reproducer, including a 210 Power Amplifier with "B" supply unit, all self-contained in a steel frame. It weighs 45 pounds without the cabinet. The cabinet itself is of pencil-stripped walnut, beautifully designed with Cathedral grille. It is equipped with switch for control of house current to Reproducer, power unit and amplifier. A pilot light indicates when the Reproducer is in operation.

If desired, the 210 Power Amplifier will also supply 22, 67 and 90 volts "B" current, sufficient for any set using up to 8 tubes. An automatic voltage regulator tube, UX-874, maintains the "B" voltage silent and steady.

### This Electro-Dynamic Reproducer

can be used with any battery or A.C. set, replacing the last audio stage or be used with all tubes of the set. Wherever used, it will bring out every shading and range of tone; every note is reproduced with utmost faithfulness, pure and undistorted. It will modernize any radio receiver.

The following tubes are required for its operation: 2—UX-281 (for full-wave rectification); 1—UX-210 (for super power amplification); 1—UX-874 (for voltage regulation). For use with phonograph pick-up, one additional audio stage is recommended between the pick-up and this Reproducer.

A 20-ft. cable is included with each instrument. Operates direct from 50-60 cycle, 110-120 volt A.C. current.

List Price, \$175.00 (less tubes)

Going at **\$33.50!**

Lots of 5 or more \$29.50 ea.

## KOLSTER SIX TUBE CONSOLE RECEIVER

With Built-In Kolster  
Electro-Dynamic Reproducer

### Features

1. Beautiful highboy console of burlled walnut with maple overlay.
2. Kolster K-5, Electro-Dynamic Reproducer with built-in 210 Power Amplifier included for fine tone quality (see opposite page).
3. Famous Kolster 6-tube T.R.F. circuit.
4. Hairline selectivity. Distance Reception.
5. Single dial control—simple to operate.

The entire set can be operated direct from the A.C. light socket, 50-60 cycle, 110-120-v., by simply adding any "A" supply unit and a small 4½-volt "C" battery. The built-in Electro-Dynamic Power Reproducer furnishes the "B" supply current to the set. A switch snaps the receiver in or out of operation and a pilot light tells instantly when set is in operation. The single dial control makes this the simplest of receivers to operate.

### This Receiver Employs the Famous Kolster T.R.F. Circuit

It operates on either indoor or outdoor antenna using three stages of R. F., detector and two stages of A. F. The three point tap switch aerial adjuster operated from panel gives hairline selectivity. A loose coupled coil in conjunction with tap switch increases the distance getting value of the receiver. In addition, the 210 power amplifier built into the model K-5 Dynamic Reproducer, achieves remarkable tone quality. In this receiver is embodied everything looked for in modern radio.

The combination Kolster Set and Electro-Dynamic Reproducer is housed in a beautiful console of burlled walnut with maple overlay. Full swinging doors found only in the finest cabinets add to its beauty.

The receiver uses 6—UX-201A tubes and the Electro-Dynamic Reproducer uses 2—UX-281, 1—UX-210, and 1—UX-874 tubes.

List Price, \$295.00 (less tubes)

Going at **\$48.50!**

Lots of 5 or more \$44.50 ea.

TERMS: 20% cash with order, balance C.O.D. f.o.b., New York. (2% Discount for Full Remittance with

# AMERICAN SALES COMPANY,



Size 6"x5"x3 1/2"

## AEROVOX or Dubilier

### High Voltage Filter Condenser Blocks

Finest non-inductive High Voltage Filter Block. Made to be used with UX-250 Power Tubes but can be used safely in filter circuits of eliminators or high power Amplifiers in any combination of capacities desired.

Each Unit is equipped with long, heavy, flexible insulated leads, convenient for easy wiring, and also has mounting brackets. Latest design.

The insulation resistance of these Condenser Blocks is in excess of R.M.A. and N.E.M.A. standard requirements.

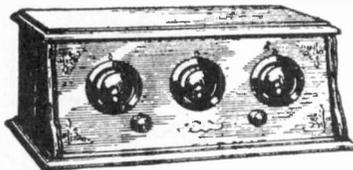
Due to the request of the manufacturers of these Condenser Blocks we cannot divulge the high list price of same.

CAPACITY	RATED D. C. WORKING VOLTAGE
2.0 mfd.	1000 V
1.0 "	800 V
1.0 "	800 V
0.5 "	400 V

**Special \$2.50 per block**

## FREED-EISEMANN SIX TUBE NEUTRODYNE RECEIVER

(For Battery Operation)



Model No. 130

List Price **\$80.00**  
(less tubes)

Size  
18 1/2" x 10 1/2" x 9 3/4"

### Features:

- Completely Shielded
- 3 Stages R.F., 1 Detector,
- 2 Audios (1 Power Tube)
- Stippled Panel
- Genuine Mahogany Cabinet—
- Cable Attachment

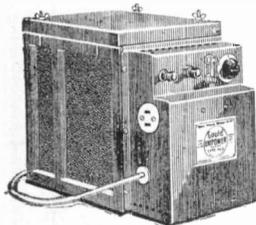
An excellent number for customers preferring an inexpensive set. This Freed-Eisemann Set is ideal for portable use.

Built of the finest of parts. Uses 5—UX-201A tubes and 1—UX-171A tube. Wired for "C" Battery.

**Special \$9.50**

Lots of 5 or more **\$9.00 ea.**

The New Gould Kathanode



List Price \$39.50

## Unipower

GOULD PRODUCT  
(With Built-in Relay)

Automatic  
Radio "A" Power  
From Light Socket

Model A.C.—6 K (Six Volt)  
Furnishes rich, smooth, unflattering "A" current, without any trace of hum. No rewiring necessary in your set. Equipped with a new noiseless Bakelite Charging Unit which has four graduated charging rates and in addition one booster rate (1 1/2 amperes) for an emergency charge, which enables it to properly take care of all sizes of sets and conditions of operation. Operates on 110-120 V., 50-60 cycle A.C. current. Complete with extra fuse.

**Special \$9.75**

Lots of three—**\$8.50 ea.**  
Lots of six—**\$7.50 ea.**

## Genuine RCA UX200 Radio Tubes



List Price \$1.75 ea.

Bakelite UX face detector tube drawing one ampere. Due to the extreme low prices of these tubes, we cannot allow replacements. However, every tube is brand new and packed in the original factory sealed carton, we having purchased them direct from the Radio Corporation of America.

**Special 13c ea.**

**\$6.50 Per Carton**

Sold only in Carton Lots of 50.

The New

## Algonquin



### Cone Speaker

Will stand powerful or weak volume equally well and reproduce with wonderful tone quality and volume. Has a full-floating large 18-inch Cone brought to the highest point of perfection. Made of a special impregnated fabric (not paper) which is absolutely unaffected by moisture or atmospheric conditions. Equipped with an extremely sensitive electro-magnetic Cone unit with direct drive to Cone and is exact to highest degree.

A beautifully designed Speaker with art metal scroll. Ship model. Finished in polychrome gold stipple.

List Price \$30.00 Ea.  
Reduced to \$15.00

**Special \$3.70**

Lots of 5 or more **\$3.25 ea.**

### Manufacturers and Jobbers

We are prepared to offer cash for surplus stocks of Radio Merchandise. This means of course stock in first class condition and in such volume that insures a good value to our many established buyers. Send details of your offerings for quick action.

order.) All units offered are BRAND NEW, packed in original factory sealed carton and fully guaranteed.

**19-21 WARREN ST., NEW YORK**

## Why Be Satisfied With 40 OFF?

### Electric CHELSEA Radio



24 1/4 in. long, 12 1/2 in. wide, 12 1/2 in. deep.

List Price \$65.00

TO DEALERS **\$29.25**

#### 1930 FEATURES:

1. USES NEW 245 POWER TUBE
2. AUTOMATIC PICK-UP JACK
3. BUILT-IN HUM CONTROL
4. BUILT-IN SOCKET ANTENNA
5. ILLUMINATED DRUM DIAL
6. PRESSED STEEL CHASSIS

Send for full descriptive literature

## Jackson Radio Co.

66-68 Patterson Ave.  
Long Island City, N. Y.

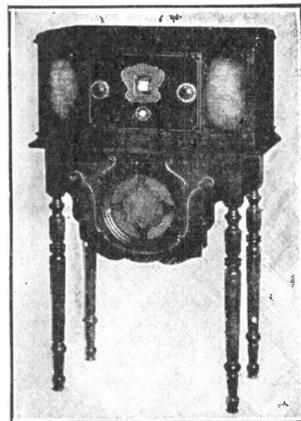
TERMS:—20% with order, balance C. O. D.; 2% discount allowed for full remittance with order only.

Here is a chance to feature an excellent electric Radio at a price well within the reach of millions, and at a discount which assures you a profit equal or better than on more expensive sets. Note the description and many features listed. Order one today—try it and you will write for quantity price.

From Manufacturer to you at 50 and 10% off

**CABINET:** Made of selected woods with genuine Maple Burl panels, overlaid on four-way matched veneer. Hand-rubbed in dark brown Mahogany with glass-like lacquer finish. Massive and extremely beautiful, a true product of the cabinet maker's art.

#### CONSOLE MODEL



40 in. High, 24 1/4 in. Wide,  
12 1/2 in. deep

Also Furnished

#### IN CONSOLE MODEL

With Latest

Inductive Dynamic Speaker

List Price \$89.50

TO DEALERS **\$40.27**

This is a brand new 1930 model  
—not to be confused with obsolete or surplus merchandise.

#### BUSINESS OPPORTUNITY

(Continued from Page 176)

##### Radio Cabinet Factory For Sale

Real estate, building 15,000 sq.ft. floor space, and machinery complete. Midwestern city. Will sacrifice for cash. BO-107, Radio Retailing, Tenth Ave. at 36th St., New York.

#### FOR SALE

##### Summer Camp, Maine

Moneymaker, ideally located, 22 cabins, 50 acres. Bargain. National Brokerage Company, Omaha, Neb.

## Turn Your Customers Into Real Radio Fans

*Enthusiasts are the Best Buyers*

RADEX, the DX Tuning Book will do this because

It teaches them to tune correctly.

It gives them an understanding of radio.

It is an incentive to get the most from their set.

It tells them where to set dials for any station.

Sells everywhere at 25c. the copy

Request on letterhead brings sample.

**THE RADEX PRESS**

1367 E. 6th St., Cleveland, O.

# “As a sales producer we have not seen its equal”

A manufacturer who had a special lot of radio cabinets to dispose of writes: “—orders have been coming in so fast on radio cabinets that it seems we have been unable to make shipments as rapidly as orders have been received and from all indications the entire lot will be sold before the next issue goes to press.

“We want to compliment your publication. As a sales producer we have not seen its equal—!”

## Address

# Searchlight Department

Tenth Avenue at 36th Street, New York City

# EAGLE

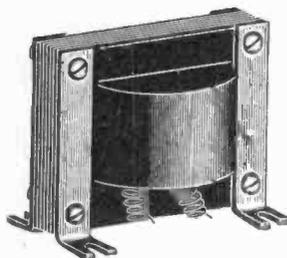
Audio Transformers

The "EAGLE" transformers cover the entire audible scale of frequencies. Reproduces both the high and low notes equally and with natural fidelity. They are low priced, and you cannot obtain better transformers for more money. Stock these transformers and double your investment.

**A TRANSFORMER FOR EVERY NEED**

# EAGLE

Audio Transformers

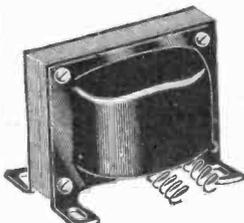


**Eagle Type U**

An excellent replacement transformer, will fit into any convenient place in set. Loose leads facilitate easy wiring.

The repair man's utility trans. Ratios: 3-1; 5-1.

**NET 65c ea.**

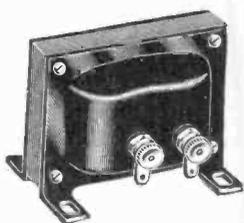


**Eagle Type L**

Highly finished black japan, with loose leads. Very convenient for set builders and replacements because of its compactness and size.

Ratios: 3-1; 5-1.

**NET 75c ea.**



**Eagle Type H.B.**

Highly finished black japan — small, compact, ready to replace in any set. With binding posts.

Ratios: 3-1; 5-1.

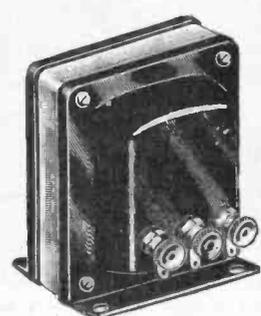
**NET 85c ea.**



**Eagle Type V.B.**

Highly finished in black japan. Ratios: 3-1; 5-1.

**NET 95c ea.**



**Push-Pull**

Input and Output

Use of these two highly advanced transformers in the last stage audio amp. in conjunction with two 245 or UX171A will give maximum volume and clarity.

**NET \$3.00 per pr**

**Power • Clarity • Tone Volume**

### Dealers and Service Men

There are thousands of sets and eliminators laying dormant in homes that require repairing. The owners will let you repair them, if they know you are in the repair business.

The repairing of radio sets has become a separate and distinct business from the regular radio selling.

Our replacement parts facilitate easy installation by any one who knows how to use a soldering iron. Most repair cases show that the condenser block or an audio transformer is defective. Sometimes, it is a resistance that is burnt out. With our replacement parts, repairs are made easy. You realize a cash return on a profitable basis.

The Federated Purchaser is "The House of Replacement Parts."

### Replacement Blocks

Consist of all high voltage condensers, which we fully guarantee. Install one of our "Hy-voltage" blocks and forget your future troubles.

Condenser Blocks For	Each, Net	Lots of 6
MAJESTIC B Eliminator	\$4.50	\$25.00
MAJESTIC SUPER B	4.65	25.00
ZENITH (For all sets using a 280 rectifier tube)	5.50	29.00
ATWATER KENT No. 37 Set (This condenser block also includes chokes)	7.50	36.00
DRY "A" eliminator condenser block. For Majestic Dry "A" eliminator —6000 mfd. made by Dubilier	5.40	32.40
UNIVERSAL BLOCK (Dubilier) 200 mfd. Dry "A"	3.00	16.20
By using one or more 2000 mfd. Dry "A" condensers you can get the desired capacity for any Dry "A" eliminator.		
MAJESTIC ELECTRIC SET —1928 Models. Condenser block for same, made by Dubilier, Type PL 1309	6.00	

### Dubilier Filter and By-pass Condensers

Filter	List	Net	
1 mfd.	\$2.00	\$ .40	
2 mfd.	2.25	.60	
4 mfd.	3.50	1.00	
6 mfd.	5.00	1.50	
By-Pass	List	Net	Doz. lots
.1 mfd.	\$1.00	\$ .25	\$2.64
.25 mfd.	1.10	.28	3.00
.5 mfd.	1.25	.30	3.36
1. mfd.	2.00	.35	3.65
Dubilier By-Pass 1 mfd., Type 656 \$3.40 per doz.			
Polymet Filter Condensers 1/10 mfd. 15c. each.			

### RESISTANCES (Wire Wound)

Baked on Lava Tubes  
18,000 ohms (Total)

With fixed taps as follows:

1500—4500—3300—6500—2200 ohms.

11000 ohms with fixed taps as follows:  
300—1300—4300—3000—2100 ohms.

These resistances can be used for a thousand purposes. In view of the low price we cannot sell less than 12. Every repair man should have them in stock. 12 for \$3.60.

Replacement Transformer for Majestic B Eliminators, \$3.85 each.

### SPEAKERS

Philco (Magnetic)	\$ 6.50
Temple (Magnetic)	7.50
Baldwin (Magnetic)	6.50
Fada (Dynamic) in cabinet	19.50

Did you ever invest two cents and make two hundred dollars?

Invest two cents in a letter to us requesting a free copy of the new October 1st "RADIO BARGAIN NEWS." Every dealer doing a worthwhile business is on our mailing list.

Our "RADIO BARGAIN NEWS" contains many standard items at unusual discounts. Mail this coupon at once.

Send me, without obligation, the October issue of RADIO BARGAIN NEWS. Attach this coupon to your letterhead or business card.

Name .....

Address .....

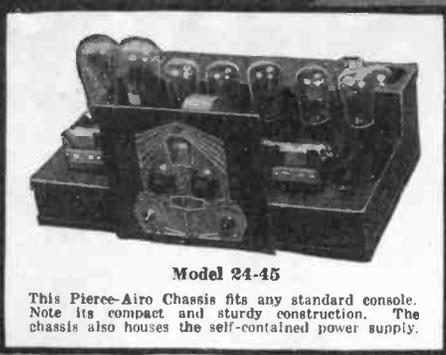
*Mr. Radio Dealer*  
**\$100,000.00**  
*worth of standard merchandise offered to you at prices as low as 75% off manufacturers' list prices.*

# Federated Purchaser

A National Organization Serving Over 10,000 Retail Merchants

16-22 Hudson Street, New York, N. Y.

Telephone Barclay 7583  
7584



**Model 24-45**  
This Pierce-Airo Chassis fits any standard console. Note its compact and sturdy construction. The chassis also houses the self-contained power supply.

# UNDISPUTED LEADERSHIP!

## PIERCE AIRO

The NEW SCREEN-GRID: Model 24-45 is, justly termed the "PERFECT RADIO" Chassis. Jobbers and dealers—well informed in Radio, have chosen this new job in preference to all others: *Truly an Undisputed Leader*, surpassing all others for—construction, performance, price.

### The Modern Way to Sell Radios

More and more radio dealers realize that the Pierce-Airo way is the logical way to sell radios today. With a super-performing chassis like the Pierce-Airo, and a variety of consoles for the prospect to choose from, sales are not only more easily made but they are more profitable because you can set your own selling price and make your own profit. Sell the Pierce-Airo way. Make the Pierce-Airo your leader. It will make you more customers and boost your profits.

Samples are ready for delivery. Write for net prices and full particulars.

**PIERCE-AIRO, INC., 113R Fourth Ave.  
New York City**

### Pierce-Airo Chassis Features

1. Employing the new 224 Shield Grid Tube.
2. Uses the new 245 tube, insuring increased volume without the consequent distortion.
3. Provision is made for regulation of line voltages in various localities, insuring longer life of tubes.
4. With a Pierce-Airo Chassis either an A.C. or D.C. dynamic speaker can be used.
5. Has automatic phonograph pick-up.

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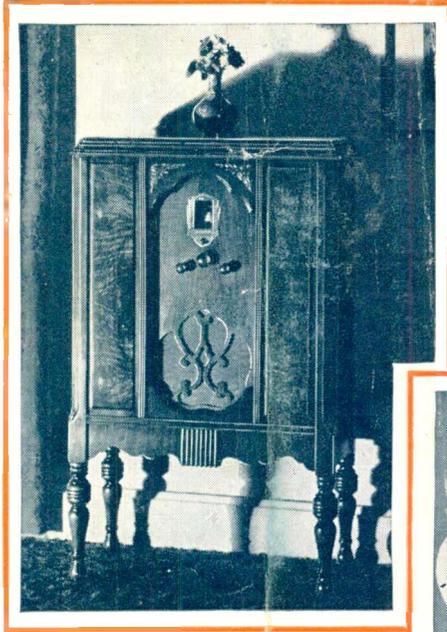
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# The Set and the Price

that are *thrilling* America



—now holding  
the **Spotlight**  
on  
**DEALERS'**  
**FLOORS**



LESS TUBES

—while **LIBERTY, COLLIER'S** and  
**THE SATURDAY EVENING POST**

*Carry These Full Page Ads!*



The new Super Screen-Grid Steinite is holding the spotlight of public favor on dealers' floors everywhere. Every day new thousands agree that Steinite is more than ever America's Greatest Value—that you can get no more by paying more, and that lower prices cannot buy Steinite's amazing features! ... And Steinite's smashing national magazine campaign goes on—powerful full pages appearing in the October 5th issue of Liberty, in the October 12th issue of Collier's and in the October 26th issue of The Saturday Evening Post! No wonder dealers call the Steinite franchise the most valuable document in the radio field! Write for full details.

STEINITE RADIO COMPANY, Fort Wayne, Indiana  
Steinrite Radio of Canada, Ltd., Toronto, Ont., Canada



**MODEL 80**  
A beautiful hi-boy with the popular half swinging doors.  
**\$149.50**  
less tubes

# Steinrite

**SUPER SCREEN-GRID RADIO**

- A Radiotron  
for every purpose**
- RADIOTRON UX-201-A**  
*Detector Amplifier*
  - RADIOTRON UV-199**  
*Detector Amplifier*
  - RADIOTRON UX-198**  
*Detector Amplifier*
  - RADIOTRON WD-11**  
*Igniter Amplifier*
  - RADIOTRON WX-12**  
*Detector Amplifier*
  - RADIOTRON UX-200-A**  
*Detector Only*
  - RADIOTRON UX-120**  
*Power Amplifier*
  - RADIOTRON UX-222**  
*Screen Grid Radio Frequency Amplifier*
  - RADIOTRON UX-11200**  
*Power Amplifier*
  - RADIOTRON UX-171-A**  
*Power Amplifier*
  - RADIOTRON UX-210**  
*Screen Grid Radio Frequency Oscillator*
  - RADIOTRON UY-224**  
*Screen Grid Radio Frequency Amplifier (A.C. Heater)*
  - RADIOTRON UX-240**  
*Detector Amplifier for Receiving Amplifier Amplification*
  - RADIOTRON UX-245**  
*Power Amplifier*
  - RADIOTRON UX-250**  
*Power Amplifier*
  - RADIOTRON UX-226**  
*Amplifier (A.C. Heater)*
  - RADIOTRON UY-227**  
*Detector Amplifier (A.C. Heater)*
  - RADIOTRON UX-230**  
*Full Wave Rectifier*
  - RADIOTRON UX-281**  
*Half Wave Rectifier*
  - RADIOTRON UX-874**  
*Voltage Regulator Tube*
  - RADIOTRON UV-876**  
*Battery Tube*
  - RADIOTRON UY-880**  
*Battery Tube*

The standard by which other vacuum tubes are rated



Look for this mark on every Radiotron




**C. B. SMITH**  
President STEWART-WARNER CORP., BALTIMORE

"Every Stewart-Warner receiving set undergoes the most exacting tests before it is approved by our laboratory engineers. For this purpose RCA Radiotrons are used. Because we have discovered that they add materially to the performance of our instruments we recommend them to all of our customers for initial equipment and replacement."

*C. B. Smith*

That all vacuum tubes should be replaced after a year of use is the advice of expert radio engineers. When this is done a brand new RCA Radiotron should be put in every socket. New sales will not do their best in company with old ones.

**RCA RADIOTRON**  
RADIOTRON DIVISION  
RADIO-VICTOR CORPORATION OF AMERICA NEW YORK CHICAGO ATLANTA DALLAS SAN FRANCISCO

The national magazine advertisement reproduced on the left is one of the 1527 Radiotron series, each of which carries the signature of a leading radio manufacturer.

RCA Radiotrons are backed by continuous advertising the year around, both in newspapers and magazines. The vacuum tube replacement market, growing larger each year, is an opportunity to the dealer to make steady profits by keeping a full line of RCA Radiotrons—and maintaining a reputation in his community for always having the full line in stock. It pays to carry merchandise that gives you a quick turnover.

Superior resources of research and manufacturing guarantee to RCA Radiotrons the finest possible quality in vacuum tubes. They are the standard of the industry and so accepted by both the trade and the public.



RADIOTRON DIVISION  
RADIO-VICTOR CORPORATION OF AMERICA NEW YORK CHICAGO ATLANTA DALLAS SAN FRANCISCO

# RCA RADIOTRON

RADIOTRONS ARE THE HEART OF YOUR RADIO SET