

RADIO RETAILING

HOME ENTERTAINMENT MERCHANDISING

-nearer and nearer
comes radio perfection

OF THE major improvements which, in the past, have influenced the entire trend of radio, Sparton has been the exclusive sponsor of several and one of the pioneers in the development of others. We will introduce, at the Chicago show, improvements that will be of equal importance with Sparton developments in the past.

SPACES B 17-13-19-20-21-22

GRAND BALL ROOM
STEVENS HOTEL

Demonstration Rooms 512-513

THE SPARKS-WITHINGTON CO.
(Established 1900)
JACKSON, MICH., U. S. A.

SPARTON RADIO

"Radio's Richest Voice"



CORRID TESTER



**NICE FRESH PENTODES
— MIGHTY MU'S
— GORGEIOUS GADGETS**

Sure! . . . Brunswick has 'em all . . . and many of 'em exclusively . . . But that isn't the *only* reason why Brunswick Radio and Panatropewith-Radio are the world's finest instruments for the reproduction of music. New devices and technical refinements mean very little in themselves . . . It's the way those refinements and devices are *used* that *counts*!

Of course, you'll always find in Brunswick instruments *all* the latest improvements and refinements in tube and circuit design. With the enormous combined resources of Brunswick and Warner Bros. Pictures, and the highly specialized radio and acoustical technique that forms the background of these two great organizations, you can be sure that

no *proven* development will be neglected in building Brunswick instruments to a standard of musical performance.

Brunswick gives *you* and *your customers* far more than "gadgets". To *you*, Brunswick offers an established dealer policy . . . sales to authorized dealers only . . . price protection . . . stability and strength . . . and the opportunity to concentrate on Brunswick with complete confidence in your future. To *your customers*, Brunswick offers enduring satisfaction with a musical instrument they will be proud to own through the years.

And remember that the Brunswick "Step-Ladder Sales Plan" will step-up your profits!

Brunswick Radio Corporation

MANUFACTURERS OF RADIO, PANATROPE AND THE WORLD-FAMOUS BRUNSWICK RECORDS
NEW YORK—CHICAGO—TORONTO *Subsidiary of* WARNER BROS. PICTURES, INC.

BRUNSWICK RADIO

BE SURE TO SEE THE NEW BRUNSWICK INSTRUMENTS DESCRIBED ON PAGE 93

The Spirit of '29

Those were the days—way back in '29! Recall this scene? Len Welling's Trade Show Special had just unloaded its rollicking crew at Englewood. Everybody was happy. And with just cause, for sales reached new heights that year.

But now it's '31. Again the "specials" are heading for Chicago and the Stevens. What of our morale this year? Cold reason answers, "Never better!"



—and of '31

Surely, the worst is behind us. With this issue *Radio Retailing* definitely sounds a new and deeper call to action. Home entertainment—in a broader and more fruitful sense—lies just ahead. Read the articles on this subject in this number, therefore, with more than usual care. . . . And then resolve to recreate that "Spirit of '29," but in the more substantial manner which these broader sales opportunities will make possible.

Vol. 13, No. 6

RADIO RETAILING

HOME ENTERTAINMENT MERCHANDISING

JUNE, 1931

O. H. CALDWELL, *Editor*

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C O N T E N T S

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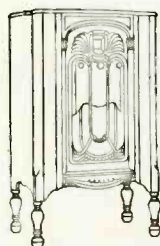
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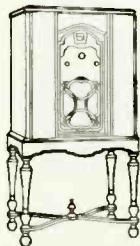
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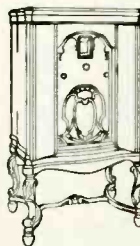
DIVERSITY of the Stromberg-



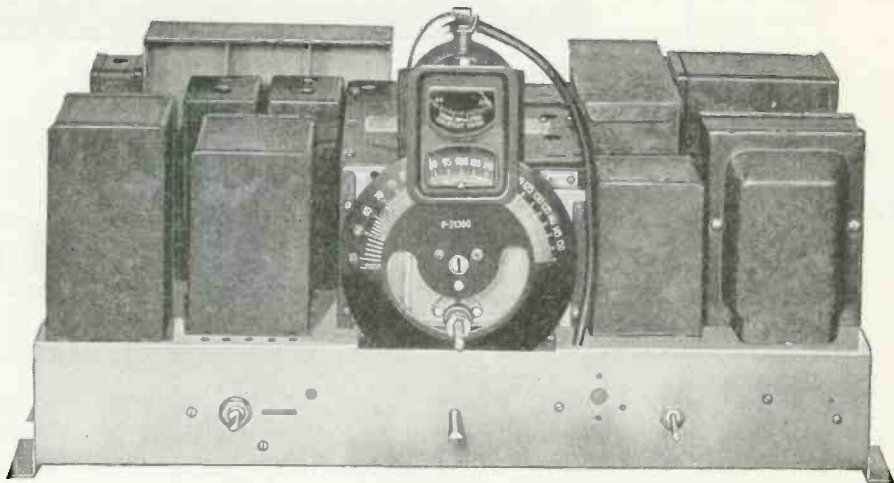
No. 19 Superheterodyne Receiver, 60 cycle. Price, complete with tubes, East of Rockies . . . \$195



No. 20 Superheterodyne Receiver, 60 cycle. Price, complete with tubes, East of Rockies . . . \$225



No. 22 Superheterodyne Receiver, 60 cycle. Price, complete with tubes, East of Rockies . . . \$375



Superheterodyne chassis used in the finest Stromberg-Carlson models of this circuit.

CIRCUITS: Tuned Radio Frequency and Non-Radiating Superheterodyne.

MODELS: A. C. and D. C.

CABINETS: Simple and more decorative—Mahogany and Walnut—with doors and without doors.

TYPES: Radio alone—Automatic Record Changing Combination—Radio Convertible into Radio-Phonograph.

PRICES: Ranging from \$195 to \$645.

“There is nothing finer than a Stromberg-Carlson”

The new and revolutionary merchandising plan behind the new Stromberg-Carlson franchise offers features never before applied to radio merchandising. You will want to know the novel details of this *original* plan. Write for them.

Listen to the Stromberg-Carlson Hour Monday Evenings in a Coast-to-Coast Broadcast of the Rochester Civic Orchestra over the N B C Blue Network and Associated Stations.



1894

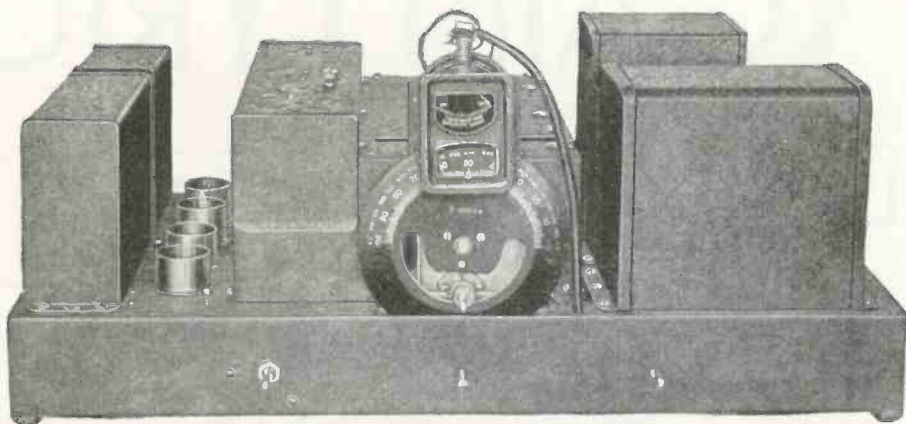
Stromberg-Carlson

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



1931

CHOICE *Marks* *Carlson Line* ..



T. R. F. chassis used in the finest Stromberg-Carlson models of this circuit.

HAVING what the public wants, presents no problems to Stromberg-Carlson dealers. If some households prefer the pinnacle of attainment in radio tone quality, with easy tuning in of the best stations and the finest programs—Stromberg-Carlson T. R. F. Receivers give it.

If others prefer the finest tone compatible with the utmost selectivity and skilled tuning in of remote stations close together on the dial yet miles apart geographically—Stromberg-Carlson Telephone - Built Superheterodynes, completely free of radiation—give it.

If some want A. C. operation, some D. C. operation, some convertible models, others again automatic phonograph combinations — they need look no farther than Stromberg-Carlson. Preferences in simple or more decorative cabinets, in either walnut or mahogany—every Stromberg-Carlson dealer can meet.

If some desire to pay, for the finest make of radio, as little as \$195 and others, for radio's most luxurious model, over \$600 — either can choose a price within the Stromberg-Carlson line.

Possessing such variety of circuits, models, types and prices, Stromberg-Carlson dealers do not have all their eggs in one basket—a fact more vital in 1931 than in any other year in radio. In our judgment, no radical changes in the radio art threatens the owner of one of these Stromberg-Carlsons. Nowhere in radio are the fundamentals so perfected as in this Stromberg-Carlson stabilized line of T. R. F. and Non-Radiating Superheterodyne radios.

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



No. 10 T. R. F. Receiver,
60 cycle. Price \$259.00
Tubes 12.35
*Total \$271.35
(Also made for D. C. Areas)



No. 11 T. R. F. Receiver,
60 cycle. Price \$285.00
Tubes 12.35
*Total \$297.35
(Also made for D. C. Areas)



No. 12 T. R. F. Receiver,
60 cycle. Price \$355.00
Tubes 15.65
*Total \$370.65



No. 14 T. R. F. Multi-Record Receiver, 60 cycle.
Price \$645.00
Tubes 15.65
*Total \$660.65

* Prices quoted are East of Rockies.



1894

Stromberg-Carlson

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



1931

1932 MODELS AGAIN LYRIC

- ALL MODELS SUPER-HETERODYNE •
- ALL MODELS WITH PENTODE AND VARIABLE MU TUBES •



Model S-6—\$49.50 complete with 6 tubes: 2-224 Modulator and Detector Tubes. 1-227 Oscillator Tube. 1-551 Variable Mu Tube. 1-247 Pentode. 1-280 Power.



• • • FULL TONE • • •
 SUPER - SENSITIVITY
 PERFECT SELECTIVITY
 4 (FOUR) GANG CONDENSER*
 SPOTLIGHT TUNING*
 TONE CONTROL*
 FREEDOM FROM HUM
 VOGUE CABINET DESIGNS
 FIVE MODELS 6-7-8-9 TUBES
 MOST ATTRACTIVE PRICE RANGE

Model S-7—\$69.50 Complete with 7 Tubes:
 2-224 Modulator and Detector Tubes
 1-227 Oscillator Tube
 2-551 Variable Mu Tubes
 1-247 Pentode
 1-280 Power

* ON ALL MODELS EXCEPT S-6

Model S-9 (not illustrated)
 2 models \$119.50 and \$139.50 complete, 9 tubes;
 1-224 Modulator and Detector Tube; 2-227 Oscillator Tubes; 3-551 Variable Mu Tubes; 2-247 Pentodes;
 1-280 Power.



Lyric Spotlight Dialing
—spots the station with
a traveling beam of light.

sets the pace in **VALUE**

Model S-8—\$99.50 complete with 8 tubes:
1-224 Modulator and Detector Tube
2-227 Oscillator Tubes
2-551 Variable Mu Tubes
2-247 Pentodes
1-280 Power

THE minute you see the new LYRICS you'll be won by their beauty of design. When you hear them, you'll find a real thrill from their glorious tone. Solid months of intensive laboratory work have brought forth a super-heterodyne that sets entirely new standards of clarity, hair-line tuning, selectivity and pure undistorted reception.

Here is a radio that meets every popular demand in performance; all models are Super-heterodyne with Pentode and Variable-Mu tubes. Tone control, four gang condenser and Lyric spot light tuning on all models except the smallest. Push pull pentodes in model S-8 for the first time in Super-heterodyne circuit. Nothing better than the S-9 with automatic volume control.

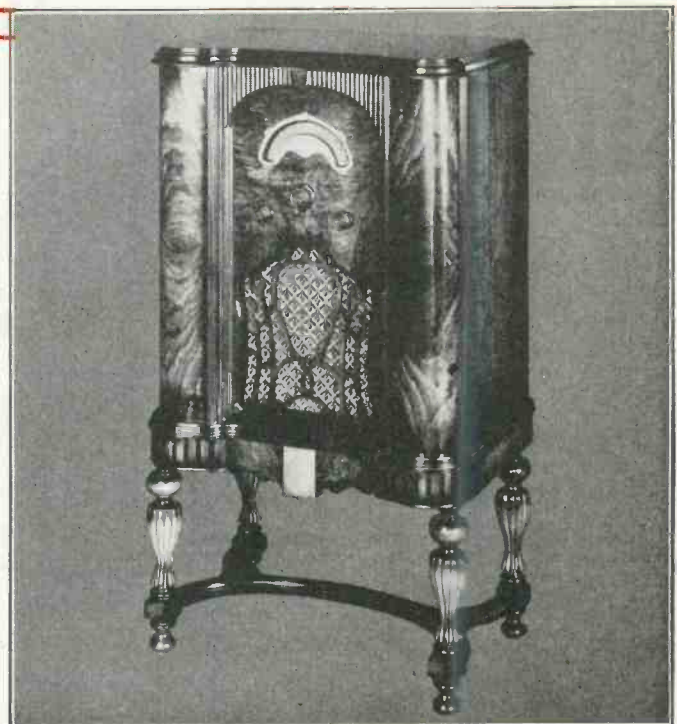
Here is a radio in a complete range of models, popularly priced for everyone . . . a radio that welcomes comparison on any and every point of construction and performance.

Today's buying public demands an exceptional radio at a very reasonable price. Lyric 1932 models will set the pace in value and Lyric dealers will set the pace in sales.

Sell the line that sells itself.

All American Mohawk Corporation
North Tonawanda, N. Y.

**WRITE OR WIRE FOR
COMPLETE LYRIC PROPOSITION**



\$ **49** ⁵⁰
to
\$ **39** ⁵⁰
COMPLETE WITH TUBES

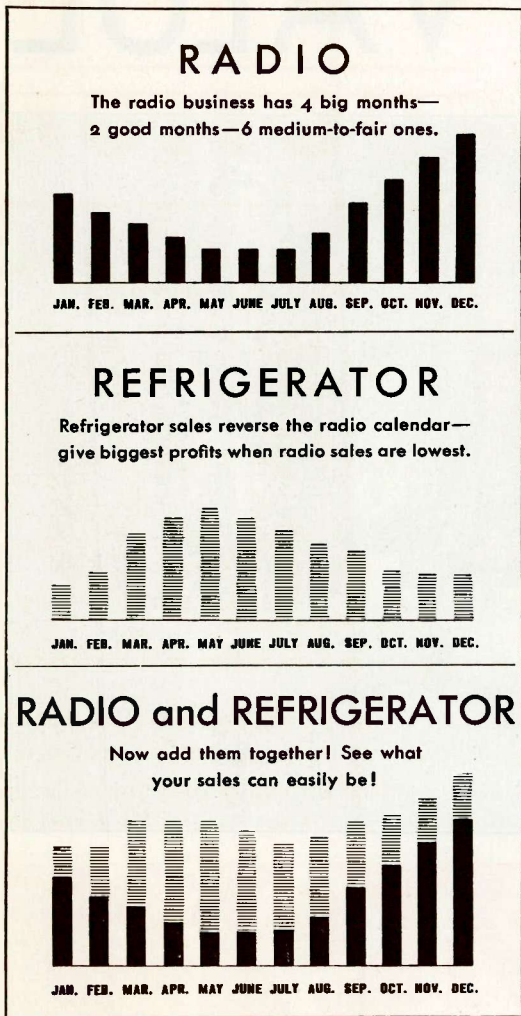
**LYRIC
RADIO**

PRODUCT OF WURLITZER



Mighty Monarch
of the Air

There is no seasonal problem for MAJESTIC Dealers



Just as the "natural" radio months end, refrigerator sales begin. During those months when radio prospects are hard to find and difficult to sell, refrigerator sales are at their peak. In the Fall, when the public loses some of its interest in the cooling of food, radio comes back into its own. Majestic Dealers have only to follow this cycle for year 'round profits.

Two and one-half million Majestic Radio owners are "leads" for the sale of Majestic Refrigerators. The public knows that Majestic builds a quality product and, by highly developed manufacturing methods, can set prices that mean Value. Majestic discounts are so arranged that a dealer can make a worth-while profit on his investment and his work. Majestic Distributors are experienced merchandisers and work *with* their dealers.

If you do not hold a Majestic franchise, call, write or wire the Majestic Distributor at once.



MIGHTY MONARCH
OF THE ARCTIC

GRIGSBY-GRUNOW COMPANY
CHICAGO, ILL.

Makers of

Majestic

RADIO and REFRIGERATOR

EVEREADY RAYTHEON'S

PARADE OF NEW ACHIEVEMENTS
BUILT ON THE SOLID FOUNDATION OF

4 - P I L L A R CONSTRUCTION



ER 247 — Power Pentode, for output stage of A. C. receivers. Pick one up and compare it with any other make of tube. You will notice:

- (1) Large clearances between electrodes, which helps to insure uniform characteristics.
- (2) Large radiating area to dissipate heat, contributing to safe operating temperature and long life.
- (3) Elements rigidly spaced both top and bottom, with a large number of supporting lead-wires.
- (4) Four sturdy pillars, one at each corner of a square, supporting the heavy elements. This is the 4-pillar construction, an improvement more necessary than ever, in Pentode tube construction.

ER 235 — Variable Mu tube, for use as amplifier in A. C. receivers.

ER 551 — Variable Mu tube, for use as amplifier in A. C. receivers.

ER 238 — Power Pentode, for output stage of automobile and 110-volt D. C. receivers.

ER 236 — Screen Grid Amplifier, for use in automobile and 110-volt D. C. receivers.

ER 237 — Detector, Amplifier, a general-purpose tube for automobile and 110-volt D. C. receivers.

ER 233 — Power Pentode, a 2-volt tube for output stage of battery-operated and 110-volt D. C. receivers.

These tubes are recommended only for receivers especially designed for their use. The Eveready Raytheon 4-pillar construction insures uniform characteristics, long life, and rigid support for the heavy and complex elements of these new tubes.

4-pillar tubes are "shock-proof" . . . they can be shipped or delivered in radio-sets . . . they give consistently superior reception in automobile radios, where they are subject to jolts and vibration . . . and they are especially well adapted for the new type of set where tubes are mounted horizontally.

Compare all these new 4-pillar tubes with others . . . you can hear the difference and see the reason!

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





Here's your
Opportunity
—don't miss it!

THE KELVINATOR Merchandise is, in itself, sufficient reason to justify the selection of the Kelvinator Sales Agreement, in preference to any other. No other Line offers such complete coverage—also many exclusive, important features. With 15 different Cabinet Models you have a Model for every size home or apartment—every size income. Every prospect for an electric refrigerator is a Kelvinator prospect—your prospect. This coverage means greater volume and bigger profits.

But, in addition to the Product, Kelvinator offers policies that are fair; discounts that are liberal; a name that is known and respected the world over; an organization that is capable

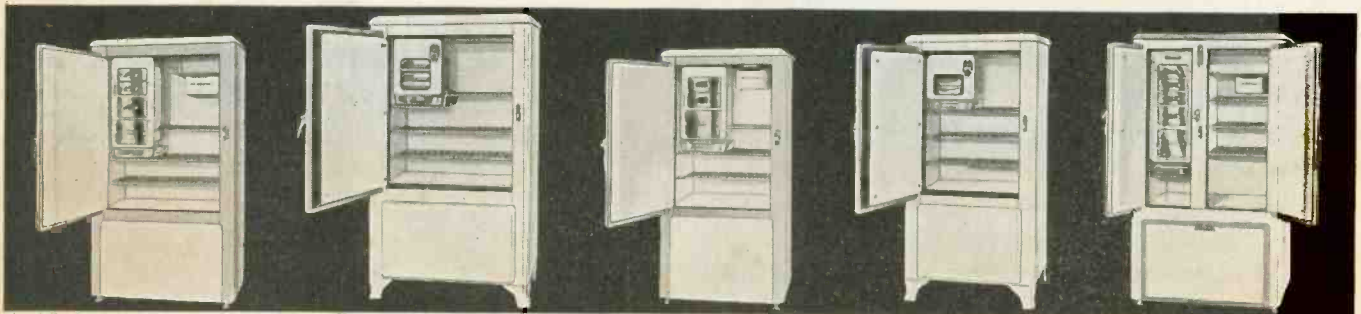
of keeping Kelvinator in the forefront in the industry; and lastly, a Sales Agreement that is, in every respect, considerate of the dealer's welfare and success.

The Kelvinator Franchise is, unmistakably, the most desirable in the industry. There are still opportunities for qualified dealers in various parts of the country to begin making money from a Kelvinator relation. Phone, write or wire for a representative to call on you to give you all the facts.

KELVINATOR CORPORATION
14263 Plymouth Road, Detroit, Michigan
Kelvinator of Canada, Limited, London, Ontario
Kelvinator Limited, London, England

Kelvinator

(301)





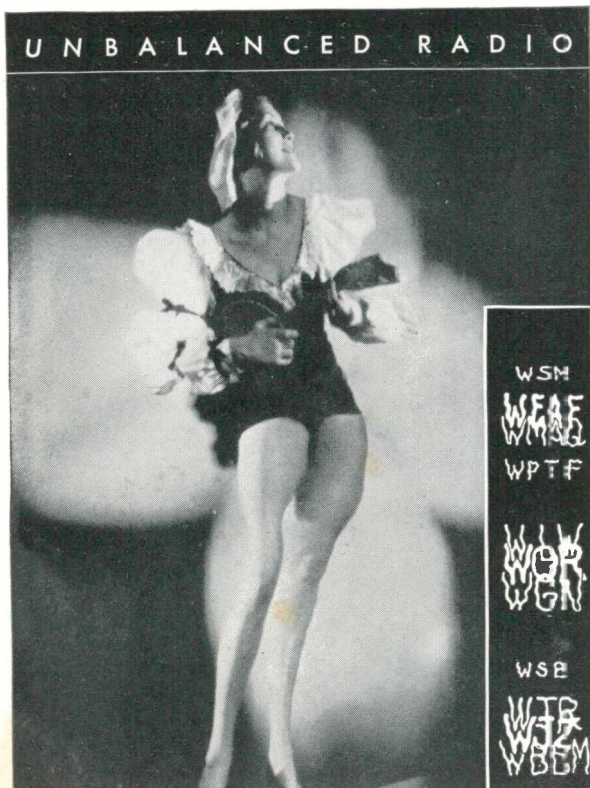
EVERY PHILCO NOW A

Superheterodyne

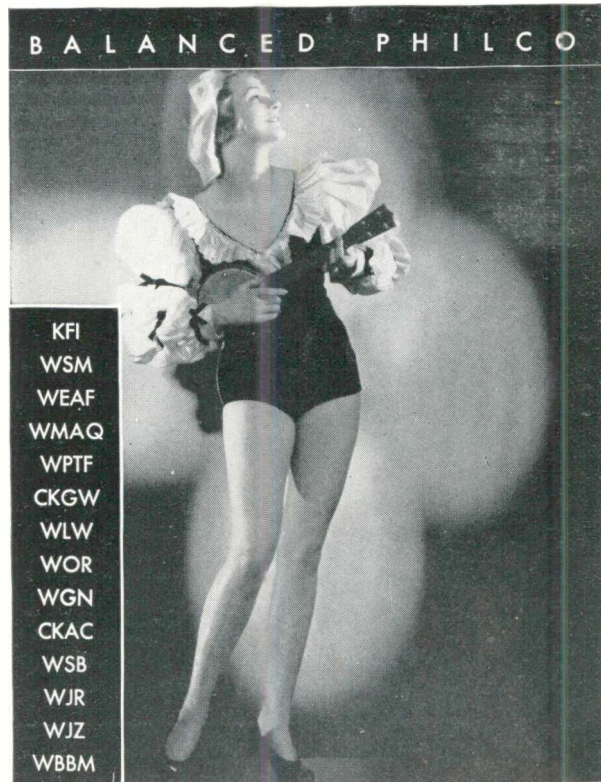
Quality—Values—Unparalleled! Amazing, Unbelievable Prices!

Greater power—greater distance—greater clarity and beauty of tone—greater range and selection of stations—greater performance from 7, 9, 11-tube Superheterodyne sets.

PHILCO adds the tremendous PLUS of Balanced-Unit Tone to Superheterodyne Selectivity and Screen Grid Power.

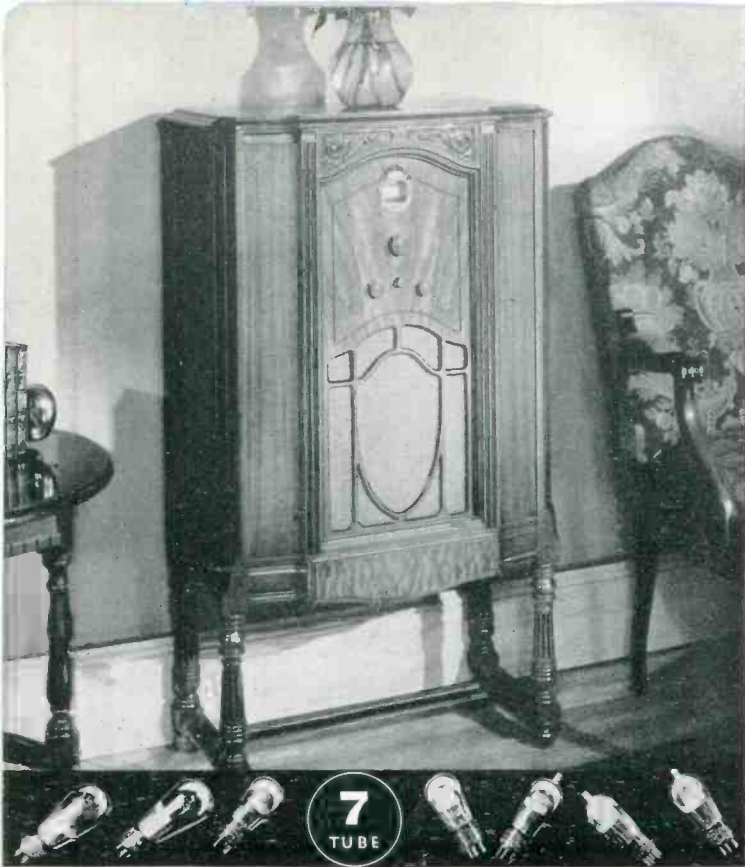


«In the two "station strips" between these pictures you see a startling new comparison of radio performance»
Just as the picture at the left represents the distorted tone, the blurred reception of an unbalanced radio—the station strip at the left shows the gaps, the cross-talk, the overlapping of stations found on an ordinary set.»



Hundreds and hundreds of dealers by concentrating on Philco have more than doubled their business.

Turn to the next page and read the biggest money-making news in years from the world's largest makers of radio.

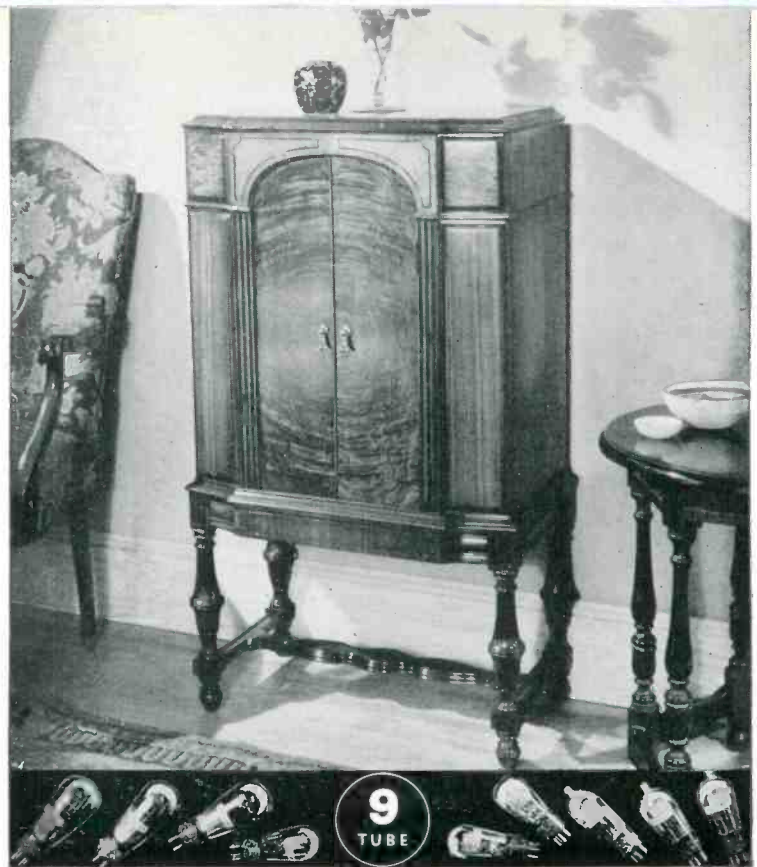


HIGHBOY MODEL 70
7-Tube Superheterodyne

\$65⁷⁵ Complete with Tubes

A red-hot, fast-selling model of exquisite design in figured Black Walnut with Scroll-carved Arch and Pin Stripe Pilasters. Tone Control—Uses new Pentode Tube—No cross talk—Has Illuminated Station Recording Dial—Marvelous new Electro-Dynamic Speaker—Sold complete with 7 Philco Balanced Tubes (3 Screen Grid)—One of the greatest Philco values ever offered to the public.

A similar model Philco all-electric Radio-Phonograph complete with 7 tubes (3 Screen Grid) and using the new Pentode Power Tube is \$110.



HIGHBOY MODEL 90
9-Tube Superheterodyne

\$109⁷⁵ Complete with Tubes

An exquisite creation in American Black Walnut and figured Butt Walnut, with Arch of "V"-matched Oriental Wood. Pilasters in Pin Stripe Walnut and Quilted Maple Decoration. Hand-rubbed lacquer finish. Four-Point Tone Control—Two 245 Power Tubes, Push-Pull—Long Distance Switch—Illuminated Station Recording Dial—Oversize Electro-Dynamic Speaker, and above all else, Balanced Superheterodyne Selectivity—Sensitivity plus Screen Grid Power and pure, undistorted tone with absolute freedom from cross talk.

In a similar Lowboy, complete with 9 Philco Balanced Tubes, \$89.75.

You must sell Balanced

To Meet the Present-Day

Study Each Model—the Value—the PRICE!

EVERY Philco is now a Superheterodyne. Every Philco has Balanced Units. Every Philco is factory-equipped with Balanced Tubes. Every Philco is priced complete with tubes. Every cabinet is the last word in furniture design.

Your future as a radio dealer depends on whether you have a line—a complete line—each unit of such tremendous **value** that you can sell **up** and make the dollar profit you need.

Philco's strength is not in having just one "hot" number.

Each and every Philco in each and every price and performance classification represents the greatest

PHILCO

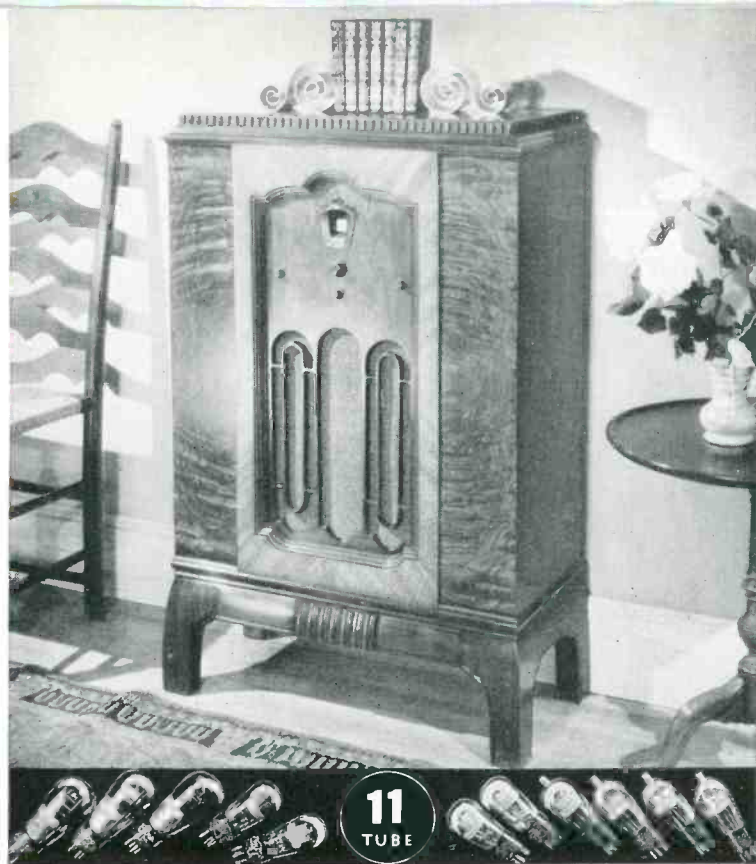
WORLD'S LARGEST RADIO MANUFACTURER

BABY GRAND MODEL 70 \$49⁹⁵ Complete with Tubes
7-Tube Superheterodyne

Tremendous performance in minimum size. Sold complete with 7 Philco Balanced Tubes (3 Screen Grid). Uses the new Pentode Power Tube and a marvelous new Electro-Dynamic Speaker with 25 per cent greater efficiency. Illuminated Station Recording Dial—Tone Control—Selectivity—No cross talk—Genuine American Black Walnut Cabinet—Figured Walnut Instrument Panel—Arch "V"-matched Oriental wood—16 inches wide, 17^{1/2} inches high.

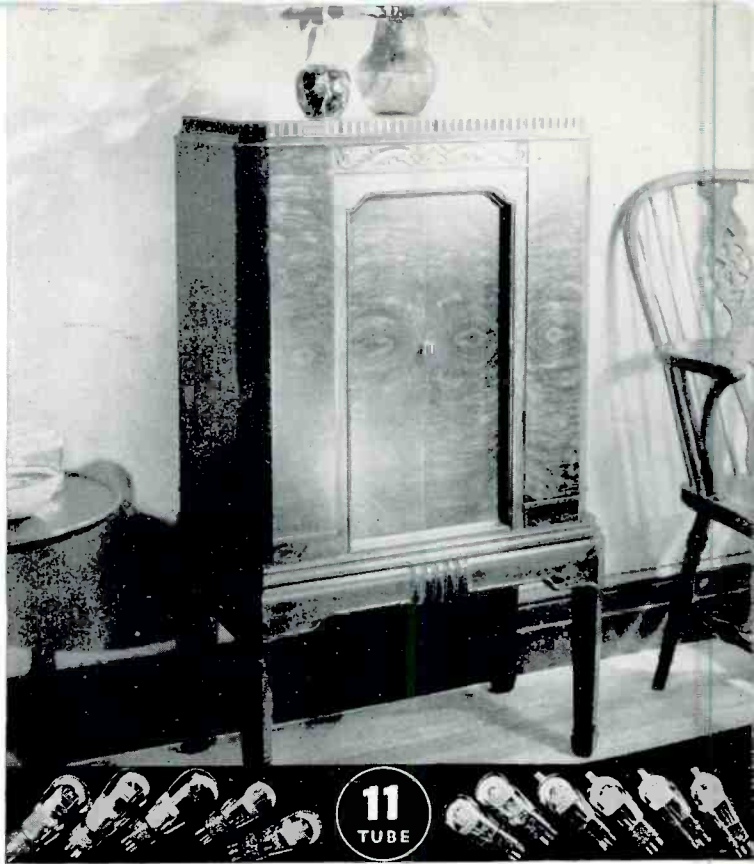
VALUE MEANS A BETTER RADIO FOR LESS MONEY—

PRICES SLIGHTLY HIGHER IN CANADA, DENVER AND WEST



LOWBOY MODEL 112 **\$149⁵⁰** Complete with Tubes
11-Tube Superheterodyne-Plus

A new standard in furniture beauty by Norman Bel Geddes, America's foremost designer. Exquisitely finished in contrasting hand-rubbed matched Butt Walnut and American Black Walnut. Instrument Panel in figured Black Walnut framed in "V"-matched Oriental wood. Superheterodyne Selectivity plus Tremendous Screen Grid Power—Four-Point Tone Control, Illuminated Station Recording Dial—Automatic Volume Control that counteracts the fading of distant stations and blasting of locals. Oversize Electro-Dynamic Speaker and Illuminated Station Recording Dial.



HIGHBOY MODEL 112 **\$169⁵⁰** Complete with Tubes
11-Tube Superheterodyne-Plus

A beautiful and graceful furniture masterpiece, also created by Norman Bel Geddes. The very finest of American Black Walnut, matched Butt Walnut with figured Instrument Panel. Half sliding doors. Hand-rubbed lacquer finish and exquisite grill of original tapestry design. Superheterodyne Selectivity plus Tremendous Screen Grid Power—Four-Point Tone Control, Illuminated Station Recording Dial—Automatic Volume Control that counteracts the fading of distant stations and blasting of locals. Oversize Electro-Dynamic Speaker and Illuminated Station Recording Dial. Also in a Radio-Phonograph with Automatic Record Changer and Automatic Volume Control, complete with 11 Philco Balanced Tubes, \$295.

Superheterodyne

Crowded Broadcasting Conditions

Study Each Model—the Value—the PRICE!

value to the buying public that has ever been known.

Don't even think of selling any make of radio until **you** have seen and operated this amazing Philco line—have marveled at the performance and realized that Philco is the fastest selling, the "hottest," most complete, and by all odds the most profitable line that a real, aggressive, "eye-to-the-future" radio dealer could have.



BABY GRAND MODEL 90 **\$69⁵⁰** Complete with Tubes
9-Tube Superheterodyne

Greatest of all small radios, with real big-set performance. 9-tube—Four-point Tone Control—Two 245 Power Tubes, Push-Pull—New Electro-Dynamic Speaker, 25 per cent more efficient—Illuminated Station Recording Dial—Long Distance Switch. Beautifully designed in American Black Walnut—Instrument Panel matched Butt Walnut and Arch of "V"—matched Oriental Wood—Hand-rubbed lacquer finish. Cabinet only 18 inches high.

SUPERHETERODYNE

NOT A CHEAPER PRICE FOR LESS RADIO

PRICES SLIGHTLY HIGHER IN CANADA, DENVER AND WEST

Even more
stupendous

PHILCO

ADVERTISING

BROADCASTING

MERCHANDISING

to back
greatest "value"
line in
radio history

Philco, Philadelphia, Pa.

Please send me at once, free, the full and complete details of your complete new PHILCO Line and the facts on the PHILCO PROFIT-PLAN. No obligation, of course. I am (am not) a radio merchant.

Name _____

Firm Name _____

Address _____

City and State _____

Competition Hasn't a Chance AGAINST THESE POINTS OF PHILCO SUPERIORITY

A BRAND new, complete, priced-to-sell line. Tremendous value in each and every style and every pocket-book classification. Every set a BALANCED SUPERHETERODYNE that sweeps all obsolete designs and circuits into the discard! Everything a wide-awake radio retailer needs, including the most profitable "proposition" that will be offered to any radio dealer this season.

Values that will astonish the buying public and sweep aside all so-called competition. The utmost in quality and proven performance. Prices that will amaze even a hard-boiled radio merchant and startle the public into buying.

SUPERHETERODYNE CHASSIS from top to bottom of the Line—startling improvements—7 tubes; 9 tubes; 11 tubes—receivers that teem with "eye value"—a new special tube—advanced chassis that will out-perform radios selling for twice the money—also Battery and D.C. sets.

Continuation of famous PHILCO FEATURES that MAKE SALES—in addition to the improvements already developed.

Steady production *without over-stocking*. Sets when and as you need them.

A new, gigantic advertising campaign which will run *continuously*—no cancellations—no unfulfilled promises—continual support for dealers. **Don't fail to read this week's three-page Philco spread in *The Saturday Evening Post!*** The most sensational radio announcement ever made to the public! By all means study the value at each and every price level.

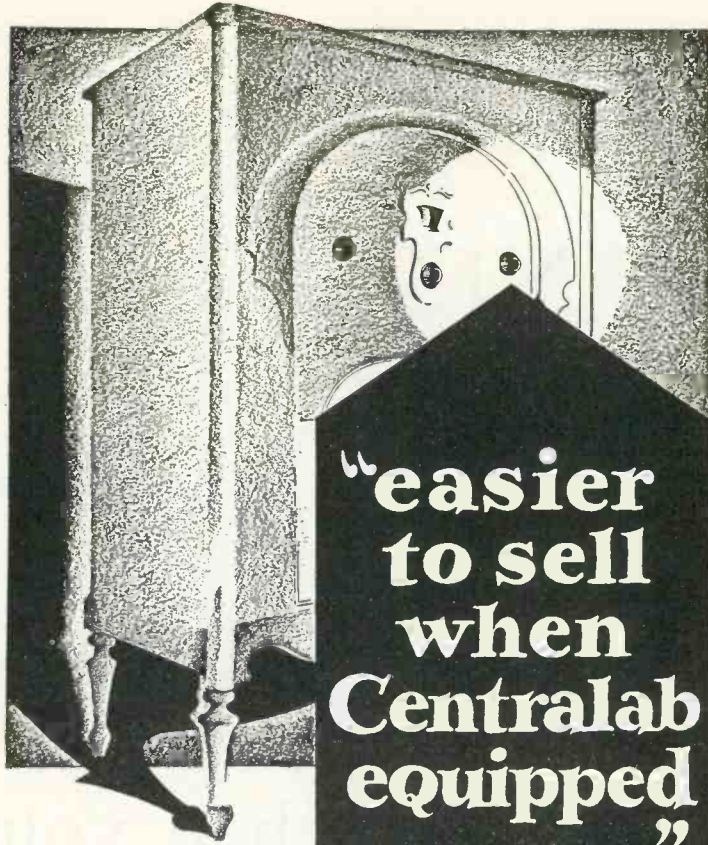
New and greater broadcasting—"Spectacles of the Air"—Stokowski—international events that "Crash the Front Page"—AND a new kind of PHILCO Hour—Popular, Thrilling, right from your OWN local station over YOUR OWN NAME!

And the most comprehensive Dealer Program of Sales Helps ever staged—selling plans, window displays, free posters, advertising—a wealth of material to round out the great Philco-Profit Plan for the Summer and Fall of 1931.

AN UNBIASED ESTIMATE

"Philco has seized FIRST PLACE in sales and FIRST PLACE in public demand because Philco Radios; prices; values; sound merchandising; steady, sane production; discounts and immense advertising; ENABLED THE DEALER TO MAKE MONEY and do business at a PROFIT Make no mistake—Philco has outsold all competitors for the last eighteen months. As this is written, Philco dealers for the last the first three months of 1931 as SOLD TWICE AS MANY PHILCOS for they were expected to sell—they are TWO HUNDRED PER CENT ABOVE QUOTA.—and this year's quota is double that of 1930."

—Reproduced from *The Baltimore Sun*



DEALERS everywhere are educating an already "radio-wise" public to appreciate the value of a set that is "CENTRALAB Equipped."

The smooth, noiseless functioning of the CENTRALAB Control as you increase or decrease the volume is a decided asset in demonstrations.

Most representative manufacturers now specify CENTRALAB Volume Controls . . . and for volume control replacements nothing can approach the perfection of CENTRALAB.

A new VOLUME CONTROL Guide is now off the press showing you how you can service practically all old and new sets with a mere handful of CENTRALAB controls. Use the coupon at once.



SEND THIS COUPON NOW

CENTRAL RADIO LABORATORIES
920 Keefe Ave., Milwaukee, Wis.

Enclosed find 25c. for which send me your new VOLUME CONTROL GUIDE.

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

Rad. Ret.

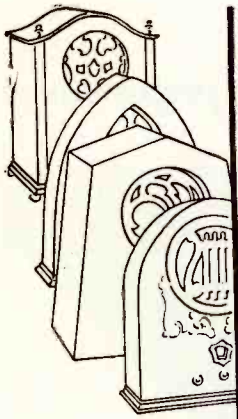
Would you like to receive
a copy? Write to The
American Weekly, 959
Eighth Ave., at 57th Street,
New York City.



When you display
merchandise advertised in
THE AMERICAN WEEKLY
you are taking real advantage
of the enormous consumer
demand created by the world's
largest circulation—5,500,000
every week.

might have done something to justify your existence besides dancing
attendance on that little dancer, Mrs. Haskins. Surely a common
figure would have called her partner to walk some to me," and her
hidden eyes glowed with all the fury she had been feeling since her

Continued on Page 10



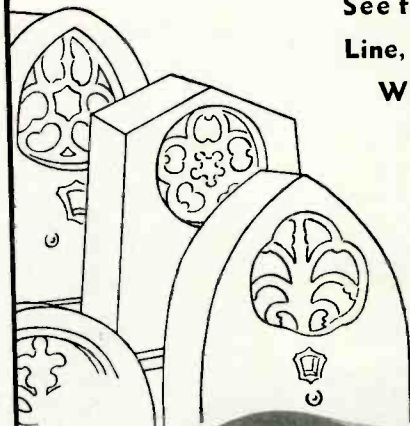
A FULL LINE OF MIDGETS

Attending the R. M. A. show in Chicago, you will want to be sure to see the one complete line of Midgets to be shown in Chicago at that time.

Through the courtesy of our Illinois distributors, we have arranged a striking exhibit of our latest models. They will be on display in the rooms of the Illinois Jackson-Bell Company in the

PURE OIL BLDG
35 EAST WACKER DRIVE
DURING R.M.A.
SHOW · CHICAGO

In 6 years given to the production of Midget Radios, Jackson-Bell have built one of the most substantial institutions in radio—distributed Nationally. Right now they promise you their greatest achievement—the greatest opportunity ever placed before you. See the line without fail.



**WITHOUT FAIL
See the Jackson-Bell
Line, Pure Oil Building
When in Chicago.**

MULTI-MU and PENTODE TUBES

The complete line of Midgets offered by Jackson-Bell for 1931-32 is priced to give you a range of popular prices. A circuit employing Multi-Mu and Pentode Tubes is featured—a Jackson-Bell development which gives new performance to Midgets. Right now, when you need such merchandise to sell at your full profit, be sure to see the Jackson-Bell display.

**A COMPLETE LINE
OF MIDGETS AT
POPULAR PRICES**

Jackson Bell
LOS ANGELES : CALIFORNIA

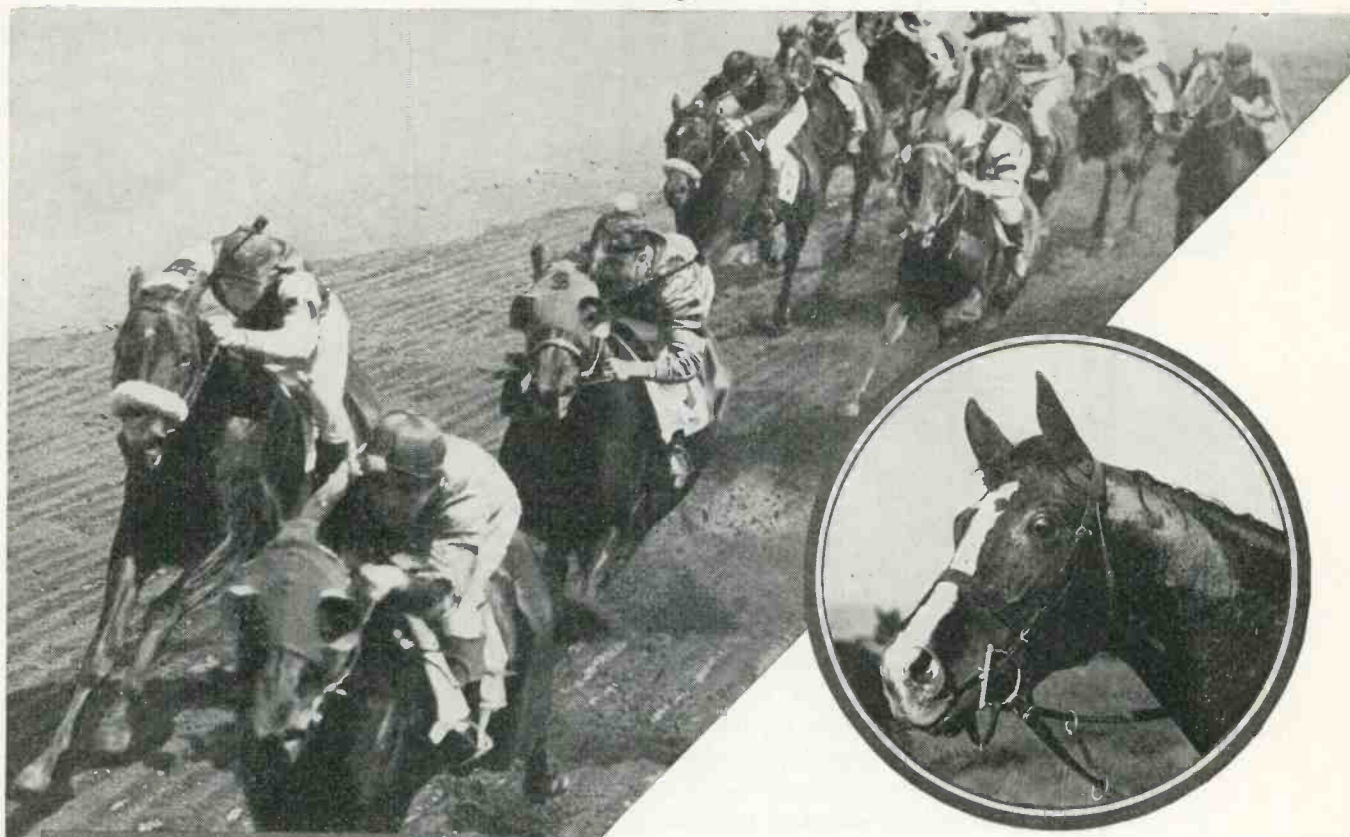
**SUPERHETERODYNE
CIRCUIT USING
MULTI-MU & PENTODE
TUBES**

**DURING R. M. A. SHOW WEEK FACTORY PRINCIPALS WILL BE AT
JACKSON-BELL HEADQUARTERS, SUITE 1202 CONGRESS HOTEL, CHICAGO**

THE THOROUGHBRED TUBE



—ready to prove by performance



A Thoroughbred makes no claims... his admirers do that!

EPINARD

One of the greatest thoroughbreds that ever sprung into being in France was "Epinard" and his game performances both in Europe and America won him a great host of friends. In this country though running under the severe handicap of an ailing hoof he displayed the courage of the real thoroughbred. His own appearance here and the careers of the colts he sired, are destined to leave a lasting mark in the history of the American turf. His owner, Pierre Wertheimer, celebrated sportsman and millionaire perfumer of France, may well have been proud of him.

LEADING THE FIELD

Type JRC-247

Type JRC-235

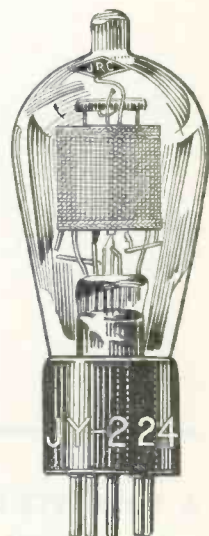
Type JRC-236

Type JRC-237

Type JRC-238

Results are what you want; and JRC are contented to be judged by results alone.

Licensed Under Patents of the Radio Corporation of America



Write for name of nearest JRC Distributor and details of dealer cooperation

JOHNSONBURG RADIO CORP.

JOHNSONBURG, PENNSYLVANIA

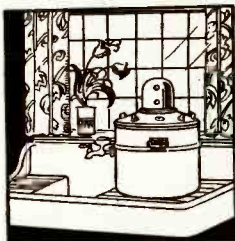
Chicago: 28 East Jackson Blvd.

It Draws the Crowds!

Cinderella Glass Demonstrators Prove Big Help in Making Sales



Just plug Cinderella in any electric outlet and it does the washing in a jiffy—for only one cent an hour.



Cinderella is useful for the week's wash, and for quickly needed things that are washed every day.



Cinderella is a big seller to small families—especially to families with young babies.



Cinderella is safe for the daintiest silks and laces; it has no moving parts to injure clothes.



Cinderella is just right for apartment dwellers. It can be tucked away in small space when not in use.



This glass demonstrator shows Cinderella's "Vacuum-Action" in action, and helps you make sales.



Cinderella \$37⁵⁰

Portable Electric Clothes Washer

"WINDOW demonstration marvelous attraction. Sales increasing. Cinderella Washers are washing away the bad times for us." That is what one dealer wrote about the Cinderella Glass Demonstrator. And similar enthusiastic letters are coming in every day.

Cinderella's low price of \$37.50 appeals to thousands of women who couldn't afford a washer before. Cinderella's amazing new "Vacuum-Action" principle, which does away with moving parts, appeals to thousands of

women who have been unwilling to trust their clothes to washers with agitators of one kind or another that thrash about inside. Cinderella's handy size and light weight appeal to thousands of women for whom a large, heavy washer would be entirely impractical.

Don't wait any longer. Mail the coupon for full details of the profit-making Cinderella Sales Plan. Cinderella is a product of The Black & Decker Mfg. Co., World's Largest Manufacturer of Portable Electric Tools. Mail the coupon now.



Black & Decker Mfg. Co.
602 Pennsylvania Ave.
Towson, Md.

Please send full details of the Cinderella sales plan to:

Name.....
Street No.....
City..... County..... State.....



STEVENS HOTEL
 EXHIBITION HALL,
 BOOTHS 40-41-42-43
 DEMONSTRATION ROOMS
 No. 1400-1401-1401-A

At Chicago
GENERAL MOTORS RADIO
will present..

THE IMPROVED SUPER-HETERODYNE

in an entirely new series of

Radios and Radio-phonographs



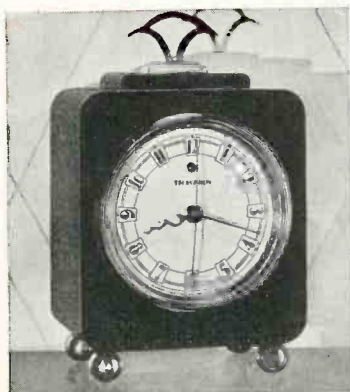
GENERAL MOTORS RADIO CORPORATION
 DAYTON, OHIO

JUNE IS TELECHRON* CLOCK-TIME!

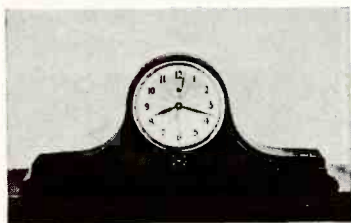
STOCK THESE NEW SALES-LEADERS . . . SOME WITH CHIMES . . . SOME WITH ALARMS . . . AND ALL WITH SELF-STARTING TELECHRON MOTORS!



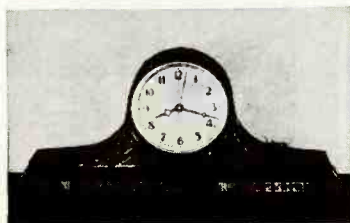
727—ALDENS. Mahogany case. Alarm movement. 7 1/4" high. Retail, \$12.50.
327—SALISBURY. Same case, without alarm. Retail, \$9.75.



358—DIANA. Illuminated dial, rheostat control for bright or dim. Five colors. Retail, \$18.



559—DURHAM. Mahogany case, lacewood panels. 17 1/4" wide. Retail, \$15.



560—BENNINGTON. Mahogany case, satinwood panels. 17 3/16" wide. Retail, \$22.50.

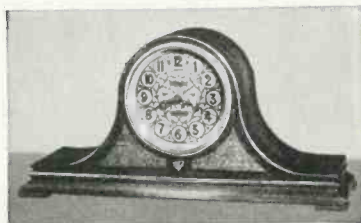
A LOT of this month's brides, with modern, electric homes, will be given a lot of modern, electric Telechron Clocks. That's *one* good reason for your stocking Telechron Clocks now. But there are many other reasons—equally good—or better!

Telechron pioneered in the electric clock industry and dominates it now. Telechron installed Telechron Master Clocks in power houses to check generator speeds and assure Telechron accuracy in homes and offices. *All* Telechron Clocks are self-starting, salable, profitable. Telechron offers you the widest variety of models and the broadest range of prices. Telechron backs its product with the strongest national advertising campaign ever launched for an electric clock, and supplements this advertising with direct sales-aids of many kinds.

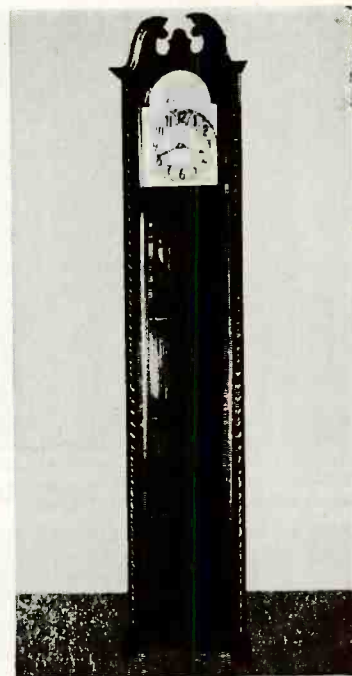
Let the convenient coupon below bring you the full story of Telechron Clocks and the profitable Telechron franchise.

*Telechron is the trade-mark, registered in the U. S. Pat. Off., of the Warren Telechron Company.

*The Revere Clock Company, of Cincinnati, Ohio, manufactures strike and chime clocks with Telechron motors, priced from \$30 to \$1000.



R-409. Mahogany case. Silver scroll raised numeral dial. Westminster and Canterbury chimes. 20 3/4" wide. Retail, \$75.



MAYFAIR Corner Clock. Mahogany case. Westminster chimes. 72" high. Retail, \$99.
Same case, without chimes. Retail, \$67.



R-154. Mahogany case. Glass door. Westminster chimes. 17 1/2" high. Retail, \$75.



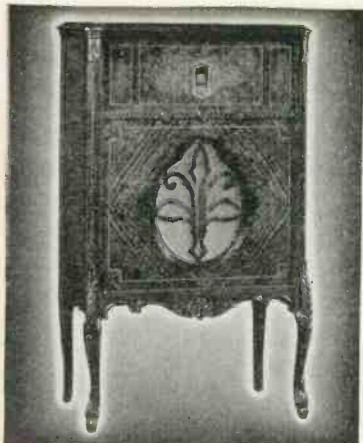
606—WINCHESTER. Mahogany case, satinwood panels. 11 1/2" high. Retail, \$29.50.

WARREN TELECHRON COMPANY
36 Main Street, Ashland, Massachusetts

Please send me information on Telechron Electric Clocks and details of your Authorized Dealer Franchise.

Name _____

Address _____



No. 109 Console—8-tube Pentode and Variable-Mu Superheterodyne, complete with tubes **\$9950**



No. 108A Console—7-tube Pentode and Variable-Mu Superheterodyne, complete with tubes **\$7950**



No. 106 Portola—Eight-tube Screen-Grid Superheterodyne, complete with tubes **\$8950**



No. 108A Table Model—7-tube Pentode Variable-Mu Superheterodyne, complete with tubes **\$6950**

OUT IN FRONT

Sentinel Superheterodynes

with Pentode and Variable-Mu Tubes

NO DOUBT about it! Superheterodynes now have the call! And so they should. Fundamentally the principle is right.

But it's another matter to apply the principle correctly. In other words, there are superhets and superhets.

Early last year Sentinel foresaw the trend toward superheterodynes, and was one of the very first to obtain a direct R.C.A. license. No attempt was made to get right into production. Rather, with a thoroughness gained through nearly ten years of radio manufacturing experience, Sentinel engineers spent months in designing, testing and perfecting. In December the first Sentinel superheterodyne was announced, and among other refinements it incorporated a special adaptation of the screen-grid tube as a second detector to produce greater sensitivity and output.

Since January a seven-tube and an eight-tube superheterodyne have been developed. Both of these were designed for use of the new variable-mu and pentode tubes. Special application and proper use of the variable-mu tubes have been made to practically eliminate crosstalk and modulation distortion. An audio circuit arrangement has been devised to compensate for the high audio-frequency response characteristics of the pentode tube as well as to compensate for the reduced baffling area in small cabinets.

These refinements serve to indicate how Sentinel engineers have set the pace in superheterodyne development. And that their experience gives great marketing value has been demonstrated by the sales during recent months.

Dealers can capitalize on this experience. Sentinels can be recommended and sold with absolute confidence in their performance.

Make it a point to see the chassis and cabinet models at the R.M.A. Show, or write for complete information.

SENTINEL RADIO DIVISION
UNITED AIR CLEANER CORP.
 9705 Cottage Grove Ave., Chicago, Ill.

Sentinel
 SURPASSING RADIO PERFORMANCE

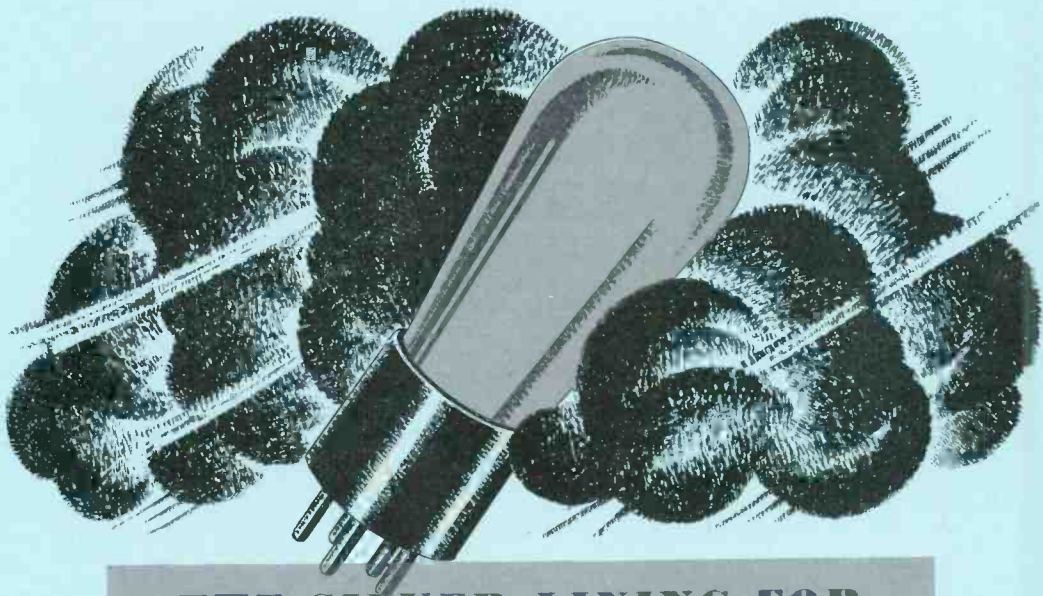
Real Radio in a Real Midget

Here's a leader—Sentinel performance in real midget form. Uses one pentode, one variable-mu, one screen-grid and one 280 tube. Sensitivity, selectivity, volume and purity of tone that is amazing for a set having but four tubes. Walnut cabinet is 14½ inches high, 10 inches wide and 8¼ inches deep.



No. 111 Pentode and Variable-Mu Midget—complete with tubes **\$3750**

TONE QUALITY~SELECTIVITY~SENSITIVITY~CONSTRUCTION



THE SILVER LINING FOR

THAT RADIO HEADACHE

THE business storm for radio distributors and dealers during the past few years has been severe. Profits and values have risen and fallen. Reputation and quality have been imaginary and crude.

“Out of it all comes one dominating lesson. An alliance with quality merchandise is the safe and sure way to permanent and expanding profits. Select only that product which has built into it the ‘Priceless Ingredient’—the honor and integrity of those who make it.

“When you distribute and sell CeCo Radio Tubes, you are assured of the ‘Priceless Ingredient.’ *Plus* quality only can bear the CeCo name.

“The CeCo Radio Tubes you receive are fresh tubes. With CeCo production balanced against current market demands, you are assured of the most recent improvements both in development and design.”

CeCo

RADIO TUBES

Licensed Under Patents of Radio Corp. of America

PIONEERS OF THE PENTODE

Ernest Bauer
PRESIDENT

**NEW
MERCHANTISING
IDEAS**

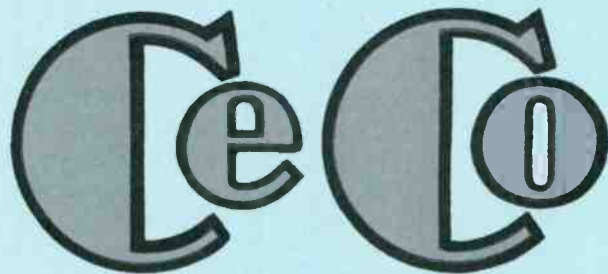
*are available to you
at the*

**CECO HEADQUARTERS
ROOM 2200
HOTEL STEVENS**

RMA SHOW JUNE 8-12, 1931

PPRICE CUTTING may stimulate sales... at the expense of profits—but skillful merchandising will *increase profits* with sales.

CeCo's plan does not stop at making the finest radio tubes... but furnishes a coöperative plan to develop the jobber and dealer. Let's plan together—in 1931—for a profit-building year.



RADIO TUBES

"A new DEAL for the RADIO MERCHANT

A 5 ACE HAND for YOU!



We'll Show
 "Our hand"
 at the
 Chicago Show
 Spaces—
 109-110
 Exhibition Hall
 Stevens Hotel

PROFITS!

Kennedy, "The Royalty of Radio," announces a merchandising policy that is a distinct innovation, a new line that is sensational in features and performance, and low prices that set a new standard of value-giving for quality merchandise.

A Kennedy Franchise means that "Profit is Trump" this year. We'll give you plenty of reasons *Why* if you see "Our Hand" at the show . . . or write for full particulars.

COLIN B. KENNEDY CORPORATION, South Bend, Ind.



AMERICAN BOSCH RADIO

*No other line of radio
checks with it*

THE BEST IN RADIO

The features offered in American Bosch Radio this year are worth thinking about — worth knowing about — and worth writing-in about. Six models range in price from \$43.50 to \$139.50 including tubes — with engineering features that incorporate every worthwhile improvement in radio. And with a selling name that is a buying guide everywhere — American Bosch Radio

gives you, under one name, a profitable line of merchandise that will appeal to the broadest market in your territory.

Until you have had the whole story on American Bosch Radio for this year, you won't be able to really appreciate its full selling and profit-making possibilities. Write for this information to the nearest branch today.



UNITED AMERICAN
SPRINGFIELD, MASS. • Branches: NEW YORK

PENTODE TUBES
SUPER HETERODYNE MODELS
FIVE TUBE MODELS
EIGHT TUBE MODELS
AMAZING SELECTIVITY

VARIABLE MU TUBES
TUNED RADIO FREQUENCY MODELS
PRICED COMPLETE WITH TUBES
PERSONAL RADIO MODEL
SURPRISING SENSITIVITY

SIX MODELS - RANGING IN PRICE FROM \$43⁵⁰ to \$139⁵⁰ - COMPLETE WITH TUBES

THE BEST IN RADIO

MODEL	5A	5B	5C	20J	20K	20L
CIRCUIT	Tuned Radio Frequency	Tuned Radio Frequency	Tuned Radio Frequency	Super-Heterodyne	Super-Heterodyne	Super-Heterodyne
NO. TUBES	5	5	5	8	8	8
TYPE TUBES	1 Pentode 247 3 Screen-Grid 224 1-280 Rectifier	1 Pentode 247 3 Screen-Grid 224 1-280 Rectifier	1 Pentode 247 2 Variable MU 551 1-224 Detector 1-280 Rectifier	2 Pentodes 247 3 Variable MU 551 2-227 1-290 Rectifier	2 Pentodes 247 3 Variable MU 551 2-227 1-280 Rectifier	2 Pentodes 247 3 Variable MU 551 2-227 1-280 Rectifier
CABINET						
Height	8 3/4"	32 1/4"	36 3/4"	38 3/4"	39"	44 1/4"
Width	14"	17 3/4"	21"	24"	24"	25 1/2"
Depth	6 27/32"	10 3/8"	12 1/8"	12 1/2"	14"	14 1/2"
PRICE COMPLETE with TUBES	\$43.50	\$53.50	\$69.50	\$89.50	\$99.50	\$139.50

American Bosch Radio is licensed under patents and applications of R. C. A. Western prices slightly higher.



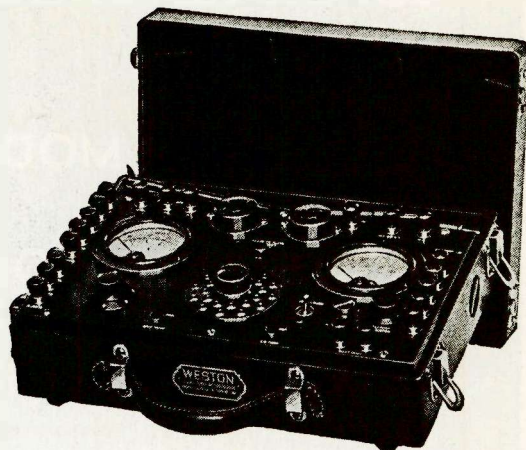
BOSCH CORPORATION
 CHICAGO • DETROIT • SAN FRANCISCO

ANNOUNCING

WESTON

MODEL 566

(type 3)



Checks Pentodes without use of Adapters

● This new design Model 566 Type 3 has many new and important features of special interest to service men engaged in servicing ultra-modern types of radio receivers as well as all preceding types. It is thoroughly up-to-date and completely equipped to make every required test with speed and efficiency.



NEW FEATURES IN MODEL 566—TYPE 3

1. Checks pentode tubes without use of adapters—250 volt range checks space charge grid voltage; 25 MA range checks space charge grid current.
2. Voltmeter Return Switch for use when testing Pentodes—no shorting of filament to cathode.
3. New type Test Plug for all five-prong tubes—new type push-button adapter used for four-prong tubes.
4. Capacity measurements from .001 (by pass) to 2 mfd.—from 110 Volt A.C. line without the use of resistors or adapters.
5. Multi-colored index markings (standard code) and larger knob on 23 point dial switch.
6. Large thumb knob for adjusting battery voltage in checking continuity of circuits and resistances.
7. OFF position on Reversing Switch for cutting out meter from circuit when desired.
8. New advanced design test prods with 50 inch wear-resisting cables with replaceable steel tips.

In addition to these new features Model 566—type 3 also checks all type tubes in the receiver, measures all filament and heater voltages, cathode, bias, control grid and plate voltages, bias voltage on D.C. sets with reversed filaments, screen and plate currents and both plates of rectifier tubes. It checks power transformers up to 1,000 volts A.C., line voltages, heater voltages at power pack, plate current and voltage at "B" supply taps, all battery voltages, resistances from 0-10,000 or 0-100,000 ohms, in-put to radio set, current in speaker coil and receiver out-put.

SERVICE MANUAL

A complete Service Manual comes with Model 566—type 3. It tells the probable causes of poor reception, how to locate them and what to do to fix them. It is more than an instruction book, it is a practical handbook.

See this new Test Set in our Booth at the R. M. A. Exhibit in Chicago.

Convenient terms of payment can be arranged if desired.

WESTON Electrical Instrument Corporation

581 Frelinghuysen Avenue

Newark, N. J.

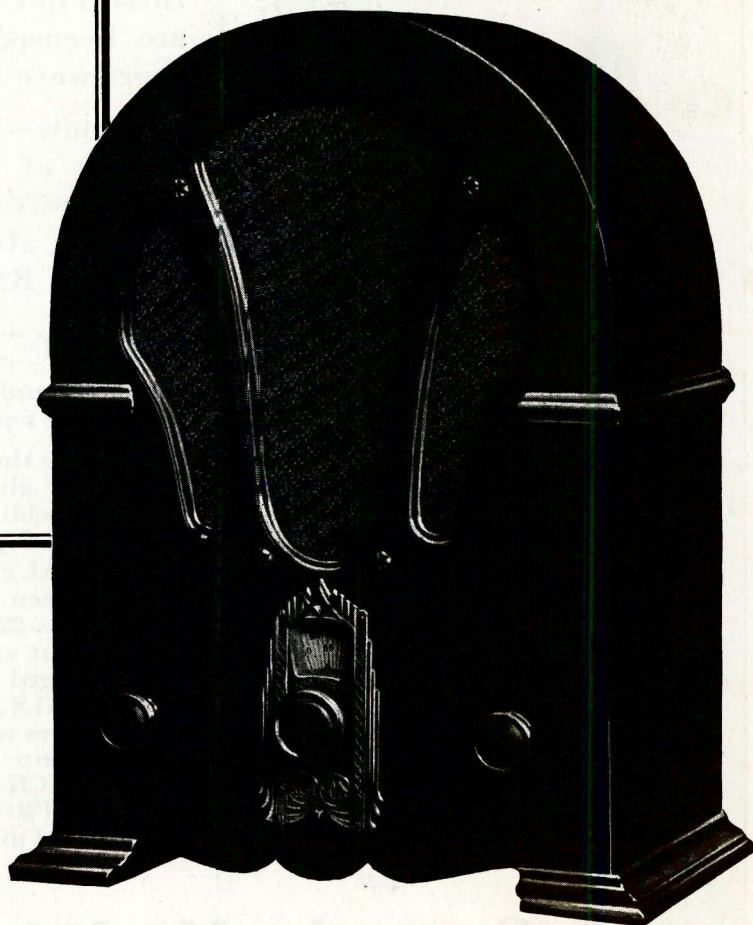
RADIO HEADQUARTERS

announces the

RCA VICTOR RADIOLETTE

\$37⁵⁰

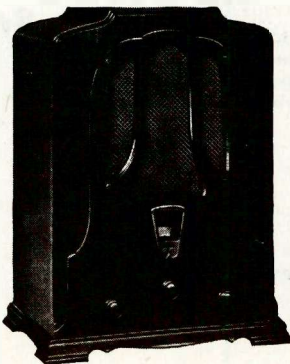
... complete with
RCA RADIOTRONS
(including the new RCA Pentode)
ready to operate



HERE it is ... a powerful radio set by RCA Victor ... only 15 inches high ... weighing only 16 pounds ... with four RCA Radiotrons ... including the new RCA Pentode for only \$37.50 COMPLETE ... imagine it! What a wonderful leader to get people into your store ... a wonderful lever for selling customers your larger, more expensive sets!

The new RADIOLETTE and the SUPERETTE open up a new market for you...the EXTRA SET MARKET. These instruments cost so little that millions of families can afford one or two or three of them in addition to their large radios!

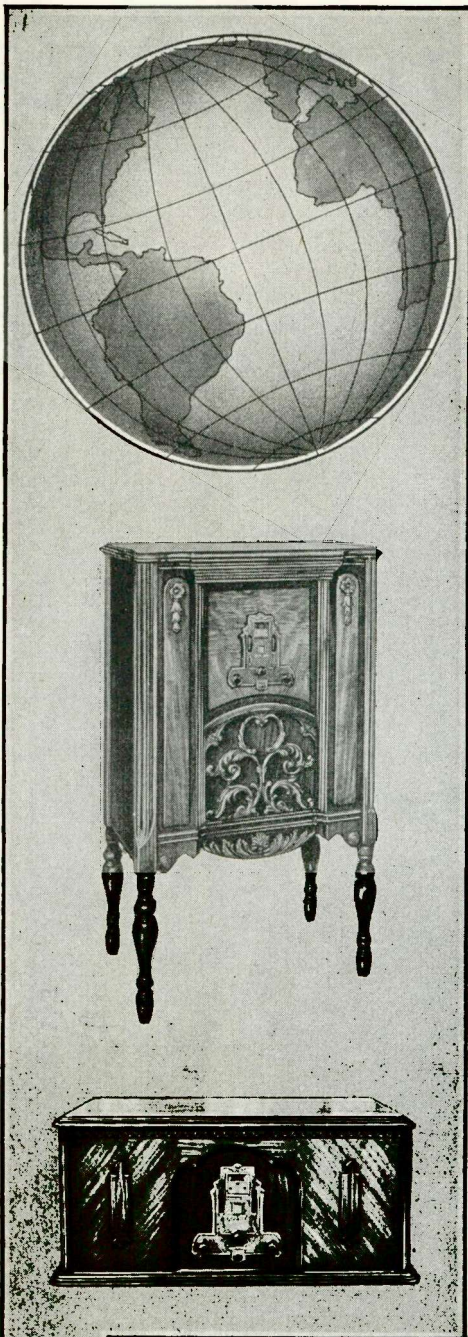
Ask your RCA Victor distributor for complete information. Call him up right away!



← **The Hit of the Season**

(At left) ... the Superette is leading the field in its class ... it's the smallest BIG radio ever built ... an 8-tube Super-Heterodyne for \$69.50 complete.





Accepted the

The world knows Pilot, not only because Pilot engineers have produced outstanding broadcast receivers, but also because Pilot short-wave receivers have become standard for *world-wide* reception.

You find Pilot boosters wherever you go and these Pilot boosters *know radio* because they are licensed amateurs, custom set builders, short-wave fans, etc.

And now—Pilot brings dealers a new radio market of unfathomed possibilities in sales and profits from the great army of buyers which is always looking for “A NEW KICK OUT OF RADIO”.

PILOT “ALL WAVE” RECEIVER

(for short and long waves with automatic coil changing)
GIVES THE ENTIRE WORLD OF RADIO ON A SINGLE KNOB

Here is the thrill thousands have been waiting for. The set which gives world-wide reception on the short-waves, in addition to broadcasting, with all its *familiar* stations and programs.

ALL METAL chassis . . Highly sensitive and selective circuit . . Screen Grid TRF amplifier PLUS Screen grid DETECTOR . . 227 First Audio Stage . . two 245's in push-pull output stage . . Stations can be logged PERMANENTLY ON DIALS . . Regeneration control does not alter tuning . . Provision for PHONOGRAPH PICK-UP . . Earphone Jack on FRONT PANEL . . illuminated dial.

Console Model

The All-Wave Console model, for short and long wave reception. Beautiful two-tone, full size walnut cabinet. Contains full-size dynamic speaker. Looks like any high class broadcast console, which it is—and more.

\$149⁵⁰

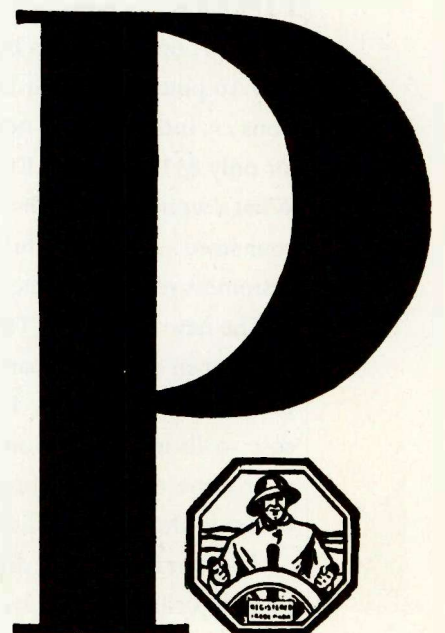
LESS TUBES

Table Model

The All-Wave Table model. Superb walnut cabinet. Can be used with separate speaker of dynamic or magnetic type.

\$99⁵⁰

LESS TUBES



PILOT RADIO & TUBE CORP., Lawrence, Mass.

SEE PILOT EXHIBIT AT CHICAGO R. M. A. SHOW, BOOTHS B-33 and B-47, HOTEL STEVENS BALLROOM

World Over!

In 1931, radio jobbers and retailers know they must have salability *plus* in every type of receiver. Up-to-the-minute circuits expertly engineered . . . Every operating convenience . . . *Quality* cabinets of great beauty . . . Pilot's new line of superior Midget, Consolette and Console model super-heterodynes will not disappoint them . . . They have unbeatable appeal to both ear and eye and their list prices represent real value to the purchaser and respectable profit to the merchant.

But — in 1931 jobbers and dealers need even more than good lines; they need the confidence of the public in the manufacturers of their lines; many radio reputations are slipping — Pilot's is growing continually.

There is profit and progress — in 1931 — for jobbers and dealers in Pilot's products, protective policies and plans of sales promotion. Write for the PILOT 1931 PLAN.

PILOT SUPER-HETERODYNES

are worthy to carry on the uninterrupted and always increasing success of the Pilot Company — since 1908 a company of international renown.

NEW MIDGET SUPER-HET

The Midget Super-Heterodyne (7 tubes) has automatic volume control, clear vision dial, tone control and phonograph connection. Its rich two-tone walnut cabinet, its super-heterodyne selectivity and sensitivity, its splendid tone, make it the superior of all Midgets. Uses three 551 variable-mu tubes, two 227's, one 247 pentode and one 280 rectifier.

\$59⁵⁰
LESS TUBES

CONSOLETTA 7 TUBE SUPER-HET

The Consolette Super-Heterodyne (7 tubes) has the same sterling chassis as the Midget in a beautiful small console cabinet.

\$74⁵⁰
LESS TUBES

STANDARD 10 TUBE SUPER-HET

The Standard Super-Heterodyne (10 tubes) has automatic volume control, visual tuning meter, push-pull audio, clear vision dial and tone control. In its rich and handsomely grained full-size console cabinet this set will grace the finest home. Uses four 551 variable-mu tubes, three 227's, two 245's and one 280.

\$116
LESS TUBES

DE LUXE 10 TUBE SUPER-HET

The De Luxe Super-Heterodyne lives up to its name. It uses the same 10-tube chassis as the Standard model, in a truly magnificent walnut console cabinet with hinged doors. Will satisfy the most fastidious taste.

\$139⁵⁰
LESS TUBES

Also special models for operation on batteries, direct current, and 25 cycle A. C.

PILOT

Chicago: 231 S. Wells Street New York: 525 Broadway San Francisco: 1278 Mission Street
OFFICES IN PRINCIPAL COUNTRIES OF THE WORLD



VISIT THE PILOT DEMONSTRATION AND RECEPTION ROOMS 542A AND 544A, HOTEL STEVENS



Cunningham
RADIO TUBES

**RADIO'S MOTIVE POWER
SINCE 1915**

**Cunninghams
assure you a
"happy landing"
for 1931 Sales**

WITH the largest line of quality tubes in our history at the lowest list price, we extend a cordial welcome to inspect Cunningham Radio Tubes at the RMA Show. You will find profitable our new plan, full of merchandising ideas and sales stimulants—ask about it.

E. T. CUNNINGHAM, INC.

(A subsidiary of Radio Corporation of America)

NEW YORK CHICAGO SAN FRANCISCO
ATLANTA DALLAS



SEE THE CUNNINGHAM EXHIBIT RMA SHOW
Chicago June 8-12 • Hotel Stevens—Booths 63-64



A ROLA SPEAKER is a *Mark of Quality*

The performance of any radio receiver is vitally dependent upon the quality of the loudspeaker with which it is equipped.

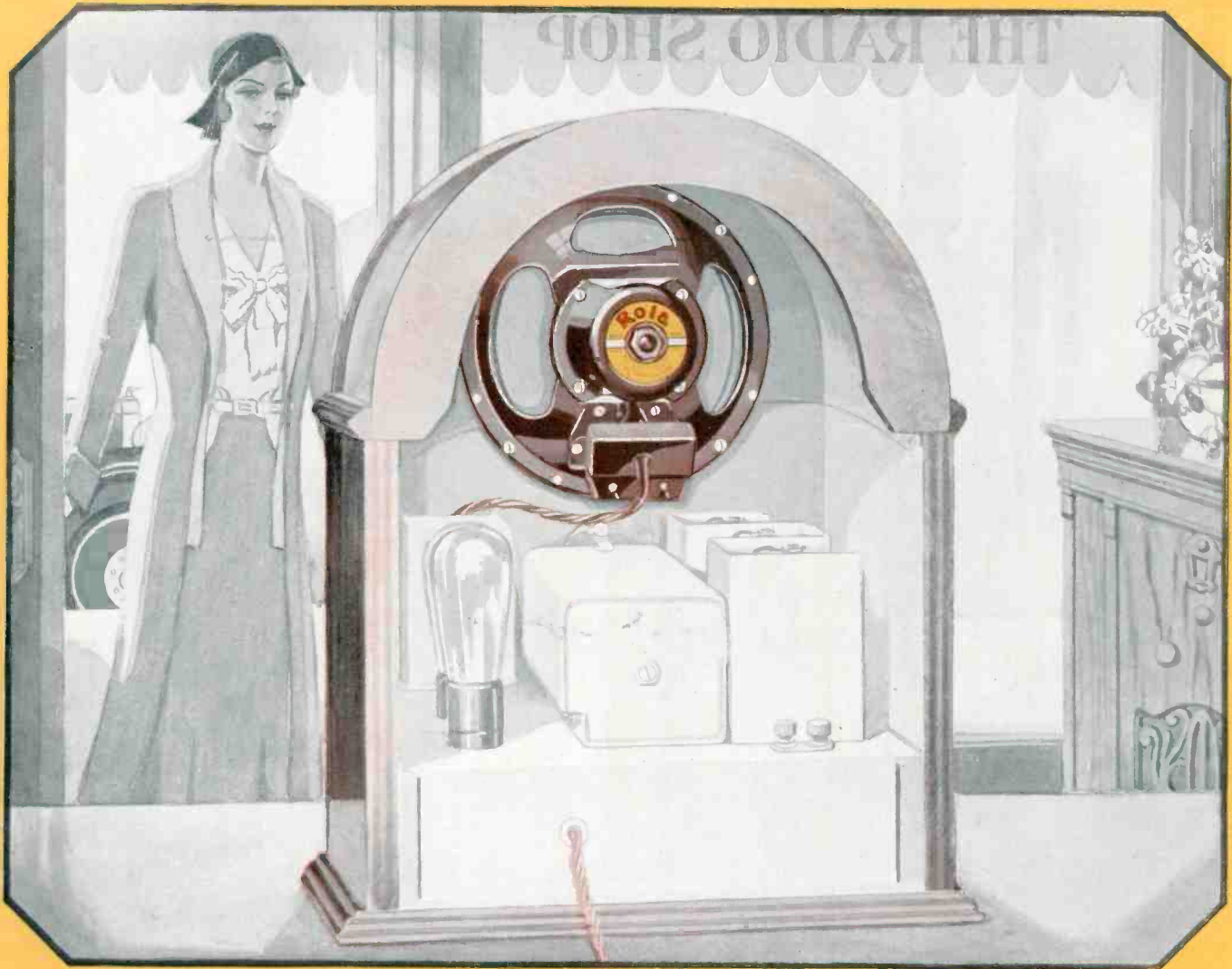
Manufacturers who build quality receivers equip them with quality loudspeakers. The fact that over a million ROLA speakers are now in use proves the acceptance accorded ROLA by outstanding manufacturers.

Thus the presence of a ROLA loudspeaker unit in a radio receiver is usually an indication of quality design throughout — a symbol of careful engineering and a guarantee of satisfactory reception.

ROLA loudspeakers give to radio reception the utmost fidelity of tone—brilliant, clean-cut reproduction of voice and music—the loudspeaker performance demanded by a public that buys quality radio sets.

A ROLA speaker in any receiver is more than a mark of quality, it is an assurance of outstanding performance and a guarantee of faithful reproduction.

THE ROLA COMPANY - 2568 Superior Avenue, Cleveland, Ohio



The Set with a ROLA SPEAKER is an Easier Set to Sell!

Probably no element of the performance of a radio set receives such critical discrimination by the buying public as tone-quality — the fidelity of reproduction.

Radio receivers equipped with Rola loudspeakers are superior in performance because Rola's clean-cut, life-like reproduction meets the requirements of modern broadcasting.

Rola-equipped receivers are easier to sell because they give the user greater enjoyment in listening to broadcast programs.

The receivers you sell are probably equipped with Rola loudspeakers. If not, try a comparison with a receiver that has a Rola loudspeaker and see for yourself how much greater value you can offer your customers by handling only Rola-equipped merchandise.

You can identify the Rola loudspeaker by the Rola trade-mark, or by Rola's distinctive construction. Fill out and send us the coupon below and we will send you interesting technical information pertaining to loudspeaker principles and construction.

THE ROLA COMPANY - - 2568 Superior Avenue, Cleveland, Ohio

*Manufacturers of Loud Speaker Units for Midget, Automobile and Console Sets.
Also high power Loud Speakers for Public Address Systems and Talking Pictures.*

Visit the Rola Exhibit at the R. M. A. Trade Show in Chicago, June 8 - 12. Booth B1 - A in the Hotel Stevens Ballroom.

Please send me "Principles and Design of Dynamic Speakers." I handle the following makes of radio receivers:

Name _____

Address _____

City _____ State _____

Dealer

Jobber

Distributor

REMEMBER... they ALL look nice and new and resplendent and promise much... at the beginning of the season

REMEMBER, too, that ZENITH sets look nice and new and resplendent and PROFIT much... THROUGHOUT the season

NEW...1932



Super-HETERODYNE
Hyper-HETERODYNE

EXHIBITING

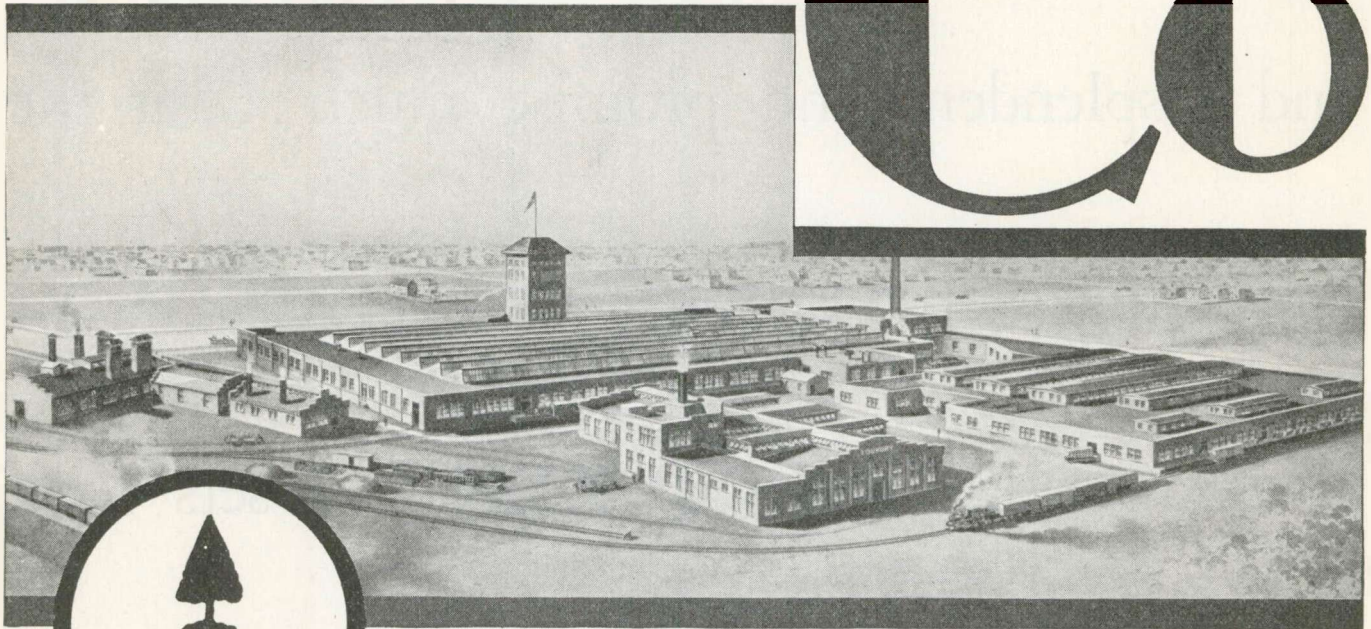
June 8th to 12th

SUITES J-22-24, CONGRESS HOTEL, CHICAGO

AT BOOTHS 53 and 54
Ballroom of Stevens Hotel (R. M. A. Show)

AT ROOMS 556A and 557A
Stevens Hotel—For Demonstration

Co



Eight solid acres of industrial strength and manufacturing efficiency. Colonial's huge plant in Buffalo is geared for volume production at minimum cost—one of the strongest factors in the field.

100% Colonial Quality

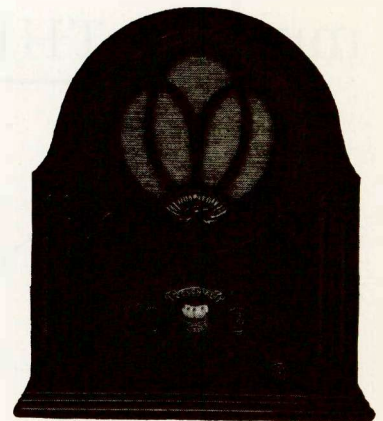
Produced for VOLUME Sales

The Perfect Jobber and Dealer Combination

Higher than market quality—considerably lower in price. Designed by Dr. Fulton Cutting for eye value above the ordinary—radio value beyond usual standards. Colonial presents the finest, most *flexible* merchandising line in its long quality history. See—and compare—Colonial's jobbing and retailing advantages at the R. M. A. Show.

JOBBERS

Exclusive franchises now being considered in a few desirable territories. Full details at R. M. A. Convention or by mail.



MODEL 39
Five-tube set. Walnut finish.

\$49.95

Complete with tubes.

MODEL 48

Superheterodyne. 8-tube Highboy including Mu and Pentode will be on display at the show.

COLONIAL RADIO CORPORATION

254 RANO STREET, BUFFALO, N. Y.

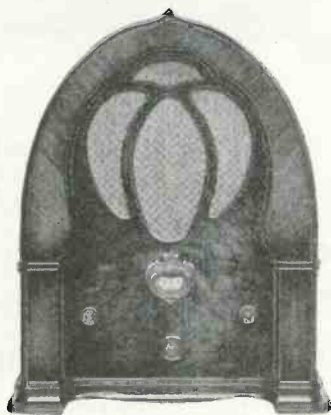
Announcing the NEW LONIAL SUPERHETERODYNES

New Developments . . . Using Pentode and Variable Mu Tubes . . . New Furniture . . . Complete Line of new Models Beginning at \$49.95 Complete with Tubes.

Engineered by Dr. Fulton Cutting. New Design . . . Tone Control . . . Dynamic Speaker . . . Superb Cabinetry . . . VALUE!



MODEL 41C
Six-tube set. Hammond
Electric Clock.
\$99.50
Complete with Tubes.



MODEL 44
Superheterodyne. 6 tubes, including
Mu and Pentode.
\$59.95
Complete with Tubes.



MODEL 47
Superheterodyne Lowboy. Six tubes
including Pentode and Mu.
\$79.95
Complete with Tubes.

COLONIAL Radio

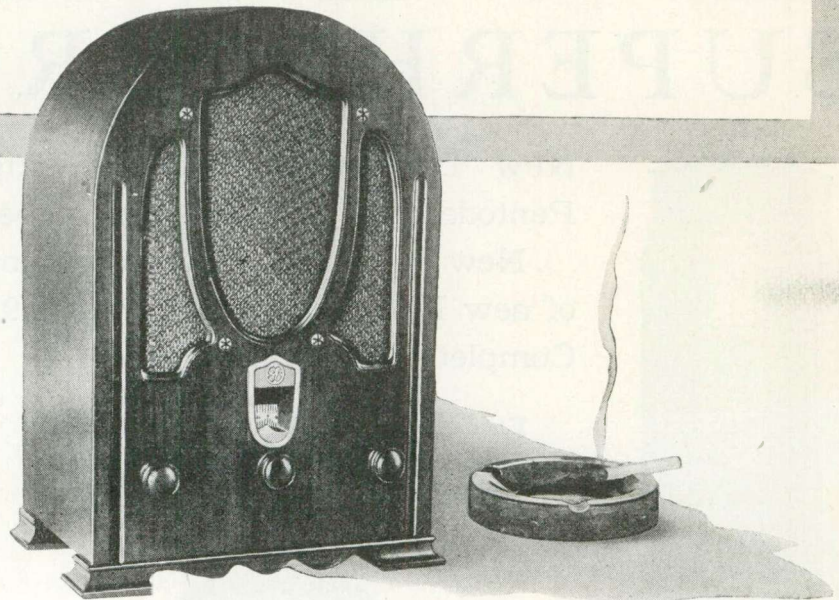


"RADIO'S CLEAREST VOICE"

GENERAL ELECTRIC'S NEWEST!

SMALLER THAN THE JUNIOR—PENTODE TUBE

LIST PRICE
\$ **37.50**
COMPLETE WITH TUBES



- Four tubes—two 224 screen grid tubes; one 280; and a Pentode tube for high output
- Tuned radio frequency set
- Unit chassis, including power supply system—completely shielded
- Dynamic speaker
- Attractive cabinet
- Tone quality above its price class
- Dimensions: Height—15 ¼"; width—10 ⅞"; depth—7"
- Materials, design and workmanship up to General Electric standards
- Put these all together—add the exceptionally low price
- Result: Sales—and Profits!
- See your G-E Distributor or write to Section R-686, Merchandise Department, General Electric Co., Bridgeport, Connecticut

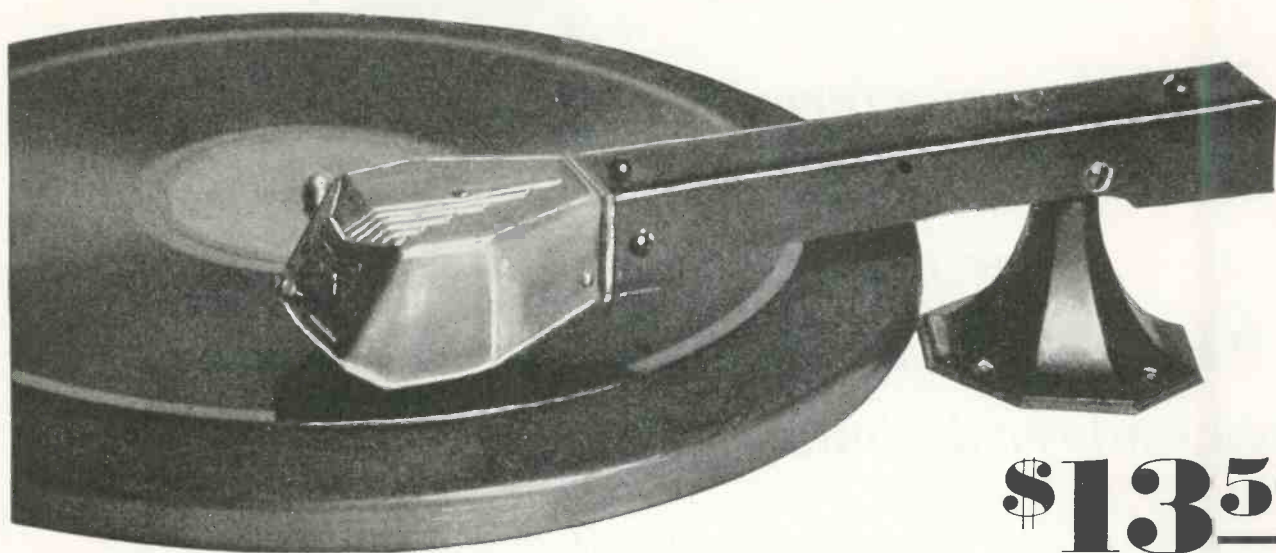
Junior • Junior Console • Lowboy
Highboy • Radio-phonograph Combination
• and this latest addition •

A Complete Line
for Summer Sales

GENERAL  ELECTRIC
FULL RANGE RADIO

THE NEW PHONOVOX

Means Quick Selling Profits for You



\$13⁵⁰

HERE is a real trump card for your line this Summer and Fall—THE NEW PACENT PHONOVOX at \$13.50. • Other pickups may have been priced lower but NEVER has there been a pickup AT ANY PRICE that can compare with the NEW PACENT NO. 120 PHONOVOX. It is a sure, fast-selling item that stays sold and which when once sold opens new avenues for the sale of phonograph records and other accessories. • PACENT'S many years' experience—more than twenty, to be exact—in the field of sound amplification and reproduction have made this pickup possible. You have never heard such marvelous quality, such tremendous volume from a pickup before. A single demonstration of this unusual PHONOVOX will make your customers want to have one installed in their homes. • Physically the new PACENT NO. 120 PHONOVOX follows the modernistic trend in receiver design. Its new rigid and delicately balanced tone arm finished in a deep black forms a striking contrast with the glistening bronze sound head. Moreover, changes in engineering design now make possible an average output more than 20% greater than possible with ordinary pickup. The new design metal armature is far ahead of anything yet attempted in pickup construction. Faithful reproduction is assured through the use of a special steel alloy.

No. 160 PHONOVOX same as No. 120 but equipped with 16" tone arm—LIST PRICE, \$16.50.

Get in back of this new item NOW and learn what thousands of other dealers have learned—PACENT PHONOVOXES REPRESENT QUICK TURNOVER AND BIG PROFITS.

VISIT OUR PRIVATE DISPLAY IN THE PALMER HOUSE IN CHICAGO DURING RADIO WEEK.

PACENT ELECTRIC COMPANY, Inc.

91 Seventh Avenue, New York, N. Y.

*Specialists in the Electrical Reproduction of Sound
for Over Twenty Years*

A BRAND NEW IDEA IN RECORDING

No fuss connecting or disconnecting when recording or reproducing with the new PACENT NO. 171 RECORDOVOX and CONTROL BOX. Simply turn the switch on the Control Box from Radio to Phonograph or Recording. The PACENT No. 171 RECORDOVOX and CONTROL BOX pictured below represents the last word in home recording. PRICE—



\$27⁵⁰

PACENT

NOW YOU CAN GIVE

FADA announces
a new and revolutionary
line of
SUPERHETERODYNES
at new and revolutionary prices!



FADA, always a quality receiver, always in demand, captures a wider market than ever before with an amazing superheterodyne line at new, low prices. Now, with Fada, you have price as well as quality to capitalize on—an unbeatable combination. Line up with Fada, the profit line!



MODEL 51
7-TUBE
SUPERHETERODYNE
WITH POWER
PENTODE

\$69⁵⁰



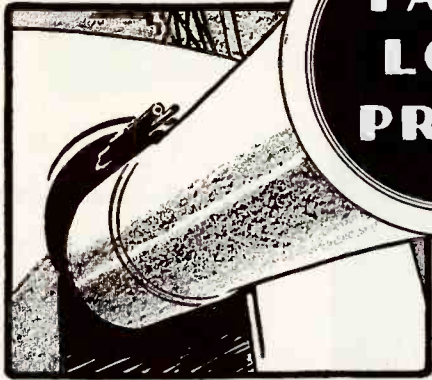
MODEL 45
8-TUBE
SUPERHETERODYNE
WITH PUSH-PULL
PENTODES

\$112⁵⁰



'EM BOTH BARRELS

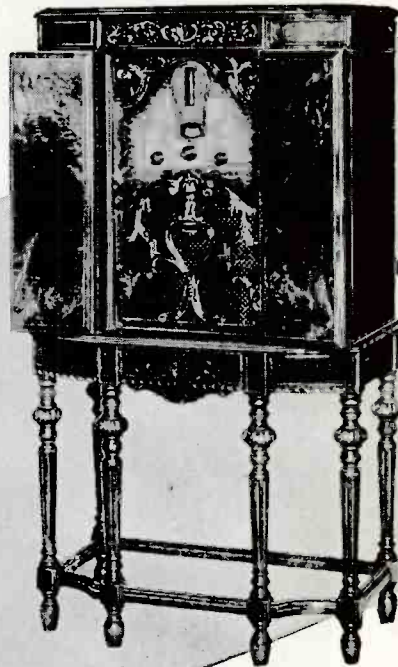
**FADA
LOW
PRICE**



MODEL 48
10-TUBE
SUPERHETERODYNE

\$147⁵⁰

DELUXE



DELUXE

\$175⁰⁰

MODEL 49
10-TUBE
SUPER-
HETERODYNE

ALL PRICES

COMPLETE WITH TUBES

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

QUIET OPERATION. Silencing forever the eternal hum and hiss, the crackle and squeal and all the other unwanted noises that infest other sets.

***AUTOMATIC FLASHOGRAPH.** An exclusive Fada feature. A rising stab of light automatically tells you when you're tuned-in precisely on the station you want.

***AUTOMATIC VOLUME CONTROL.** Fading and blasting banished. Carefree reception achieved. No need to tune up the weak stations or tune down the strong ones.

***TUNING SILENCER.** Absolute silence as dial is turned between desired stations.

***TONE FILTER AND NOISE SUPPRESSOR.** Does not impair tone fidelity as ordinary tone controls do—suppresses noise in the high frequency sector.

*Features of Fada Deluxe Sets.

Manufactured by

F. A. D. ANDREA, Inc., Long Island City, New York

IMPROVED SUPERHETERODYNE plus TUNED RADIO FREQUENCY. All that's best in superheterodyne combined with all that's best in the tuned-radio frequency circuit. **DOES NOT INTERFERE.** The Fada Improved Superheterodyne absolutely does not interfere with other nearby radio receivers.

PENTODE TUBES IN PUSH-PULL. A guarantee of maximum undistorted sound volume.

MULTI-MU TUBES. Banish all hum, hiss and other internal background noises.

SHIELDING. 100% shielded to eliminate absolutely any re-radiation.

TONE QUALITY. Every note of every instrument in the band is clear and sharp.

SELECTIVITY. When stations are only a whisker apart, you get only the one you want without even a whisper of interference from the other.

SENSITIVITY. Whether the station you want is right in your own back yard or clear across the country, you get them all with these new and finer Fadas.

At the Chicago Show

You can hear the new Fada in the demonstrating rooms at the Hotel Stevens, Rooms 604, 605, 606, 607.

You can see the new models on display in the Hotel Stevens Exhibition Hall, Booths 103, 104, 105, 106.



ZENETTE MODEL AH—
(Table type)
\$79.50 COMPLETE
with Zenith Quality Tubes.



ZENETTE MODEL CH—
(Lowboy console)
Extra large chassis, with
10-inch Dynamic Speaker...**\$99.80 COMPLETE**
with Zenith Quality Tubes.

●
ON EXHIBIT
CONGRESS HOTEL
SUITES J 22 and 24
JUNE 8th to 12th

THE ONLY RADIO
IN THE LOW-PRICE
FIELD *that has ALL*
these features

- *Super-Heterodyne*
- *8 Tubes*
- **MAGNAVISION Dial*
- *Automatic Volume Control*
- *Pentode*
- *Multi-Mu*
- *Tone Control*
- *Screen-Grid*



An amazing, revolutionary dial improvement...exclusive with Zenette...that obsoletes the ordinary type "full vision" dial on low-price sets today. Twice as easy to see...twice as easy to tune. And a great selling feature. Nothing else like it!

NEW *Super-HETERODYNE*

Zenette

MADE BY ZENITH RADIO CORP.



ZENETTE MODEL LP—
(Table type)
\$49.95 COMPLETE
with Zenith Quality Tubes.
(Tuned Radio Frequency Circuit)



ZENETTE MODEL RH—
(Highboy console)
Extra large chassis, with
10-inch Dynamic Speaker...**\$125 COMPLETE**
with Zenith Quality Tubes.

●
ON EXHIBIT
CONGRESS HOTEL
SUITES J 22 and 24
JUNE 8th to 12th

A Tribute to
The R. M. A.
—on Its Achievements
and A Word as to Its Future Responsibilities

EIGHT years ago a small group of radio manufacturers gathered in Chicago and organized the Radio Manufacturers Association. Its inception was timely, its growth has been spectacular—and the service it has rendered its industry has been great.

Radio Retailing, on behalf of the radio merchants of this country, congratulates RMA for its leadership and achievements in the face of enormous difficulties.

It is, perhaps, during Trade Show week that the value of this association becomes more evident to the trade. The import, at this time, of general and committee meetings—in which the painstaking work of the past twelve months is brought into sharp focus—becomes apparent to even the most skeptical.

WHILE, as stated, this constructive influence in the past has been great, yet the need and opportunity for an even higher and more fearless type of leadership never was more pressing. A solemn responsibility, which must not be shirked, rests upon the Chicago conferences of June 8 to 12. RMA must take the lead in "pointing the way out," during the balance of this year and for 1932.

Our future problems will be those of creative selling, rather than of production. They will call for the exercise of the soundest of judgment. Sales executives must promote the newer devices aggressively, where merit and market warrant. On the other hand, *over-promotion*, ill-timed and for selfish reasons, will surely destroy us.

FROM now on, therefore, ours will be the industry, and ours the opportunity, for bringing *all* the applications of the radio tube to the home life of the American people.

Yes, the chief solution of the radio industry's present problem must come through a legitimate, orderly and economically fair expansion of activities related to the growing demands of the family circle.

The entire radio industry looks to Chicago for the first clear signs of a crystallization of these potential factors, which, if properly geared, cannot but produce future prosperity for the radio fraternity.

Economic Forces are Speeding the Hanging of—

A New

By ORESTES



Illustrations by
RALPH SULLIVAN

THE occupation of leisure time during the next decade undoubtedly will become one of the chief economic problems of the American people. Due to improved mechanical efficiency the production capacity of goods of all kinds has outrun their consumption rate. In every line vast stocks of products await purchasers—while men are thrown out of employment because of this overproduction, and so are prevented from helping to absorb the surplus they helped to create.

Either we must speed up our consumption at present living levels and reclaim to employment the five millions now without jobs, or we must re-balance our "production budget" anew by cutting down the number of hours of productive employment of workers in general and thus restore jobs to those now unemployed.

Many economists feel that the rate of machine production of the necessities of life has reached such a point in America that only through enforced leisure can the factors of production and consumption again be balanced. They point out that the enforcement of a five-day week would on the one hand have the effect of reducing the amount of goods manufactured at present production levels and, on the other hand, increase the amount of time available for the enjoyment of luxuries and entertainment products, and so increase the demand of the general public for leisure consuming devices of all kinds.

Thus the question of entertainment and amusement of our population during their increased leisure hours becomes a problem for serious economic discussion. No longer is entertainment and occupation of leisure time a matter to be left to the mere chance whim of the individual.

From this time on there must be a well-thought out, carefully-studied program of entertainment and amusement stimulation. During the era ahead such a program will undoubtedly rank as a *prime necessity* among American economic measures along with our employment problem, banking situation, etc.

It was Charles P. Steinmetz, the electrical genius, who predicted that as the result of electricity doing all the work of the world, mankind would soon reach a recognized standard of four days' labor a week, or a four-hour work-day. He foresaw, ten years ago, that the machinery of production would soon be making more of everything than man could consume, and that a new level of leisure could be instituted, and indeed might have to be enacted, "to keep the ledger balanced," and prevent overstocks from piling up and destroying values.

This suggested condition of extra leisure hours is apparently closer than even Dr. Steinmetz computed it to be. Already it is in force this summer in many industries. Possibly it may also be continued in wide spread fashion after the coming of fall. Apparently only through a redistribution of leisure can unemployment be absorbed, and breadlines diminished.

SHINGLE

H. CALDWELL

Home Entertainment a Fundamental Need

This situation, therefore, becomes one of profound significance and splendid opportunity for those in the radio industry *right now*. Increased leisure, handed to the American people, will mean much to the industries represented by the readers of *Radio Retailing*. New entertainment demands will follow from this increased leisure.

Home entertainment will thus become a fundamental want of human beings. The desire to create an attractive home and to equip it with every convenience and facility for the family's enjoyment is a deep-rooted instinct. Under these new conditions more leisure time will be available; hence, *all* the lines of home entertainment will be in demand as *never before*. The dealer who specializes in "home entertainment merchandising" will come into his own.

What, then, of the present status of the home entertainment art, from the practical viewpoint of the manufacturer and retailer?

Radio and Electric Phonographs

Radio unquestionably still heads this list. Radio broadcasting will be an increasing factor in American home life. Programs will improve in their appeal and interest, and radio sets will be purchased for all the principal rooms of the house. A second and third set will be the portion of every well-equipped home.

The automatic electric phonograph is bound to be in increasing demand, and constitute a logical expansion of the radio dealer's service. Every family finds that there are times when it would like to hear favorite pieces or have certain dance music available for home parties. For such occasions, bound to be more numerous in the future, the electric phonograph, with its automatic record-changer, promises to be standard home equipment in the future.

Home Talkies and Television

The "home movie" is with us in finished form. Today it merely awaits organized selling effort to be on the radio-set-prospect list.

Meanwhile the "home talkie" is progressing rapidly toward the status of regular merchandise for the average home. With the availability of libraries of records and films, the home of the future will find a home talkie al-



The Trend is With Us

Modern machine production has created supply in excess of production.

According to many leading economists, therefore, a reduction of working hours per man, and a redistribution of jobs, must follow.

This trend will increase the leisure home hours of millions.

Thus increasing consumption for home entertainment devices.

most as much a necessity as the radio receiving set. Within the past month, some fifteen leading manufacturers of movie projectors, synchronized with sound, for the home, realizing the need for concerted action in producing, procuring and distributing attractive film subjects at reasonable prices, have organized the 16 MM. Moving Picture Board of Trade. Headquarters are in the Hotel Victoria, New York City. A committee has been appointed from the ranks of this organization to investigate and report on a definite plan for accomplishing this necessary objective.

Still "around the corner" as a general home entertainment device is television, as even the best of the present systems leaves much to be desired in detail, clearness, and size of field. But that does not mean that the television trend will not provide an outlet for the energies and cash expenditures of a million or more home experimenters who delight in tinkering in basement or attic workshops. In this sense television *right now* is an important factor in the leisure program under discussion. Assembly of television parts and kits purchased from the radio dealer's newly-restored "parts department" can account for many hours of the new leisure the American public is to enjoy. And out of the millions of experiments by this new army of television experimenters, perhaps there will come some fundamentally new system or systems, which appear to be needed before television can really take its place as a general entertainment and instructional art.

Automobile Radio

The automobile radio set will have a better chance if there are to be two or three full-day holidays a week, instead of merely Sunday. Daytime and overnight family excursions will be more frequent, and this will call for an automobile radio as standard dashboard equipment of the "family bus."

Special Radio Installations

One of the most promising of our present opportunities is found in the sale of special or "de luxe" radio installations—many of these are semi-concealed—and of public address, multiple-speaker and remote control jobs. This growing market should be more thoroughly studied and cultivated than now is the case.

Electrical appliances, refrigerators, clocks, therapeutic devices, exercisers, sun lamps, etc., all will follow in the wake of increased home interest and increased home leisure hours.

Taken altogether here is a great expanding business

of "home entertainment" based on one of the most fundamental of human desires, the need for entertainment and instruction.

And just at this juncture in the world's history, along comes the all-powerful hand of economics and smooths the path for the radio and associated "home entertainment" industries, by opening up new leisure time and new leisure demands.

Supplying the Leisure Hours of the Nation

The picture will unfold rapidly from now on. Under the whip of economic necessity, enforced leisure in one form or another is going to be a factor to be recognized and taken into account. In the national economic conferences already this new topic is entering on the agenda: "How can we direct the leisure hours of the nation?" "How can the extra days and hours off be occupied constructively and advantageously?"

It is the present radio industry and trade which is in the best position to offer the long-term answer to this situation. Upon the radio manufacturers, distributors and dealers will rest the responsibility for providing home entertainment equipment for the millions of American homes that will be affected.

It means planning ahead. But on it, the background of a new prosperous and profitable business can be built. The present "radio family" must expand into this broadened field of "*Home Entertainment—a coming major industry.*"

TRADE PRACTICES on TRADE-INS

THE following is an excerpt from an address delivered by the managing editor of *Radio Retailing* at the National Convention of radio dealers and jobbers, held at Indianapolis recently:

"In preparation for this address on the subject of trade-in practices, the writer questioned 100 "key" dealers and jobbers in order to ascertain the average policies used in dealing with this difficult matter. Practically all interviewed stated that this is a problem which has to be solved according to local conditions, and that no definite or general code of procedure could be laid down.

"Generally speaking, it was considered good practice to allow not over 10 per cent of the new purchase price toward the trade-in set. Another rule or standard of conduct was to allow 70 per cent of what the old set could be re-sold for. \$10 maximum allowance on battery sets seemed to be popular, while a majority stated that they had established a rule not to allow anything when the asking price for the new receiver totaled less than one hundred dollars.

"I would suggest another way to handle this situation; namely, by cutting the Gordian knot in this manner: Set up your business so that less than 50 per cent of the transactions will involve a trade-in deal. By this I mean, handle products where an allowance for something old is not involved. For example, first cousin related lines, such as amplifiers and public address systems, or other devices using tubes and radio circuits."

double-purpose sets

The NEW Models

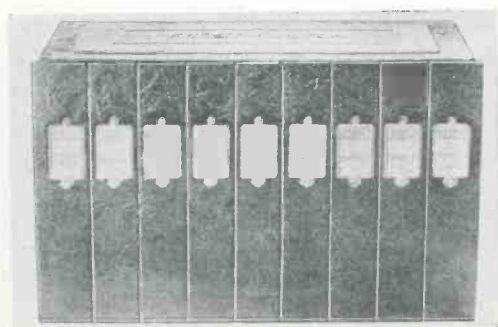
8 pages of 1932 entertainment equipment exhibited this month at the R. M. A. TRADE SHOW



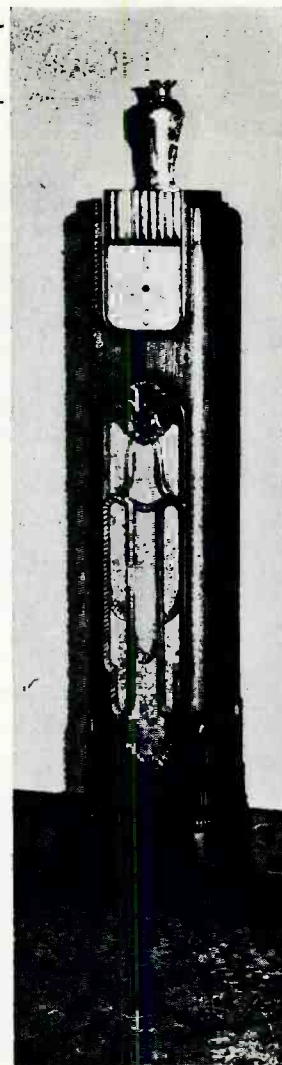
COLONIAL 41C
T.R.F., 3-24, 2-45, 80



**GENERAL MOTORS
STANDISH, \$95**
Superhet., 24, 2-27,
2-var-mu, pent., 80



**FROST-MINTON,
\$32.50**
Bookcase model
T.R.F., 2-24, 45, 80



CROSELY ORACLE,
\$99.50
T.R.F., 24, 2-var-mu,
pent., 80



**SENTINEL
PORTROLA, \$89.50**
Superhet., 3-24, 2-27,
2-45, 80

NOTE: Sets are priced complete with tubes unless otherwise noted.

consoles



SILVER-MARSHALL
Superhet., var-mu and pent. tubes



SILVER-MARSHALL
Superhet., var-mu and pent. tubes



CLARION 91, \$99.50
Superhet., 8 tubes with var-mu and pent.



CLARION 81, \$84.50
Superhet., 7 tubes with var-mu and pent.



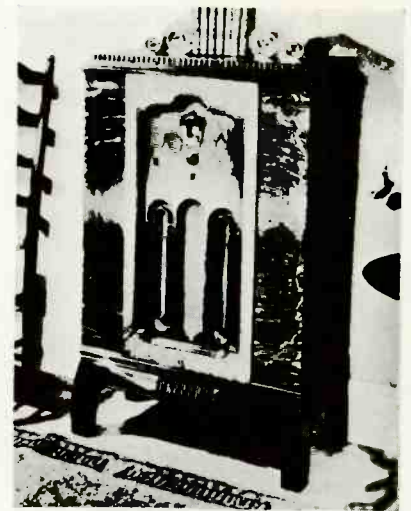
PHILCO HIGHBOY
Superhet., 4-24, 2-27, 2-45, 80

Trade Show Trends

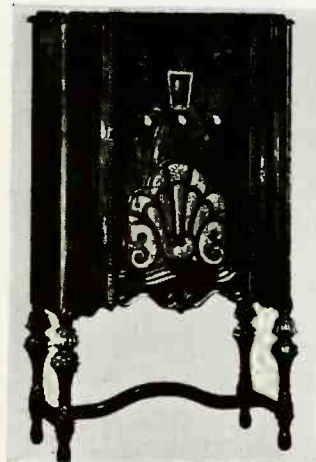
By W. W. MacDonald
Technical Editor

EVERBODY and his brother has apparently produced a pentode, variable-mu set for The Show. The new 235's, 551's, 47's and PZ's are extremely popular, providing the chief item of news, just as general adoption of the 24 captured the headlines in 1930.

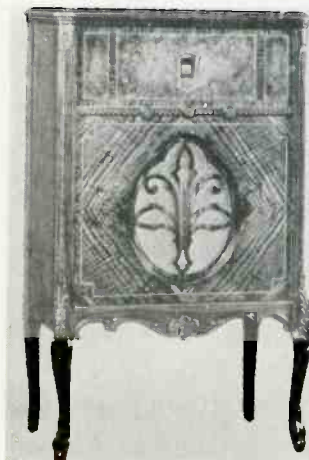
VARIABLE-MU tubes are to be found in the r. f. stages of most receivers, midjets as well as consoles,



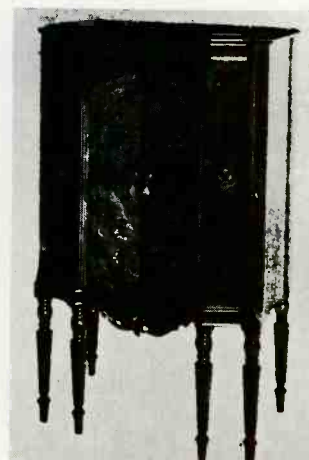
PHILCO LOWBOY
Superhet., 4-24, 4-27, 2-45, 80



SENTINEL 108A,
\$79.50
Superhet., 2-24, 2-var-mu, 27, pent., 80



SENTINEL 109,
\$99.50
Superhet., 2-24, 2-var-mu, 27, 2-pent., 80



PILOT DE LUXE
\$139 less tubes
Superhet., 10 tubes



PILOT UNIVERSAL
\$149 less tubes
T.R.F., 15-650 meters



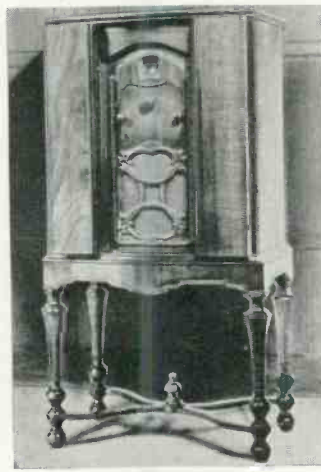
AUDIOLA 814,
\$76.50 less tubes
Superhet., 8 tubes with
var-mu and pent.



AUDIOLA 612, \$60
less tubes
T.R.F., 6 tubes with
var-mu and pent.



STROMBERG-CARLSON 19, \$195
Superhet., 4-var-mu, 2-27,
2-45, 80



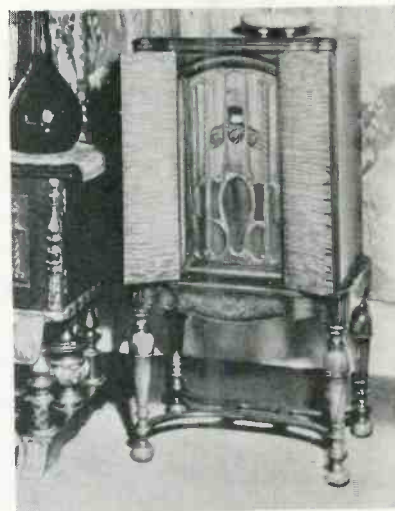
STROMBERG-CARLSON 20, \$225
Superhet., 4-var-mu, 2-27,
2-45, 80



CROSLY SONGSTER, \$79.50
Superhet., 3-24, 2-var-mu,
pent., 80

while 24's and 27's are still used as detectors, oscillators and audio amplifiers. POWER PENTODES very nearly monopolize the midget field and are almost as common in consoles. Several deluxe models obtain a particularly healthy wallop by employing two in push-pull.

SUPERHETERODYNES are as numerous as the leaves of the trees. Most lines include these and some manufacturers make nothing else. T.R.F. circuits are employed principally in low-priced models but even here do not have a clear field. There is a tendency to reduce the number of i.f. stages in supers, designers relying upon the efficiency of



CROSLY MINSTREL, \$129.50
Superhet., 2-24, 3-27,
2-var-mu, 2-pent., 80



HOWARD 40,
\$119.50
Superhet., 2-27, 3-var-mu,
2-pent., 80



STEWART-WARNER 3, \$93.75
Superhet., with short-wave
converter



BRUNSWICK 16,
\$119.50
Superhet., 3-24, 2-var-mu,
pent., 80



BRUNSWICK 33,
\$169.50
Superhet., 3-24, 2-var-mu,
pent., 80

consoles



BOSCH 20L, \$139.50
Superhet., 3-var-mu, 2-27,
2-pent., 80



BOSCH 5C, \$69.50
I.K.F., 2-var-mu, 24,
pent., 80



GULBRANSEN 135,
\$68 less tubes
Superhet., 2-var-mu, 2-24,
pent., 27, 80



RCA-VICTOR
\$89.50
Superhet., 2-var-mu, 2-27,
24, 2-45, 80



GULBRANSEN 235,
\$97.50 less tubes
Superhet., 4-var-mu, 2-24,
27, 2-pent., 80

variable-mu tubes and pentode audio for sensitivity and this has made it possible to produce cheap supers.

AUTOMATIC VOLUME CONTROL is even more generally used than it was last season and a few more manufacturers have included **VISUAL TUNING METERS**. **tone control** remains "Status Quo."

FULL-VISION DIALS have hit us like an epidemic. Stumble into almost anybody's booth in a blindfold test and there you have it. This is the only noticeable change in orthodox console models. A number of companies, however, have supplemented their lines with tricky



RCA-VICTOR
AUTOMATIC COMB., \$495
Superhet., 4-24, 2-27, 2-45,
80



G. M. VALERE,
\$99.50
Superhet., 24, 3-27,
2-var-mu, pent., 80



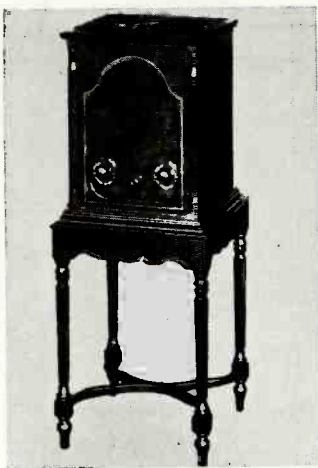
G-M LOUIS XV,
\$185
Superhet., 3-var-mu, 24,
3-27, 2-45, 80



JESSE FRENCH
TUDOR, \$89.50
Superhet., 2-24, 27,
2-var-mu, pent., 80



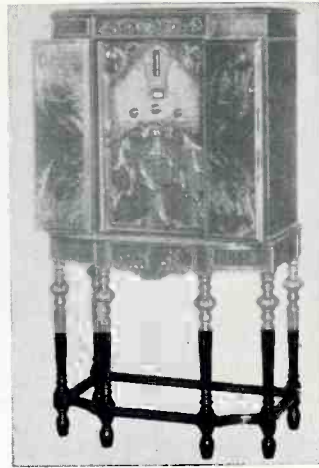
JESSE FRENCH
COMB., \$129.50
Superhet., 2-24, 27,
2-var-mu, pent., 80



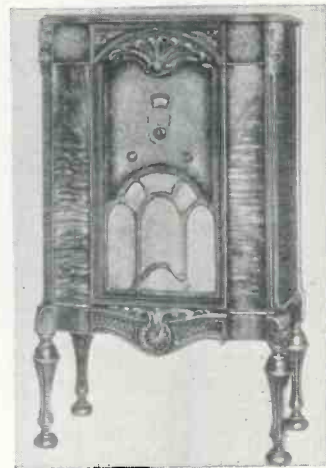
STARR
PIANO COMPANY



LYRIC S-8, \$99.50
*Superhet., 24, 2-var-mu,
2-27, 2-pent., 80*



FADA 49
Duluxe console



FADA 45, \$112.50
*Superhet., 24, 2-var-mu,
2-27, 2-pent., 80*



CAPEHART 400
With radio

*DOUBLE-PURPOSE FURNI-
TURE styles such as clock combina-
tions, smoking stands, piano-radios,
semi-portable types on wheels and
bookcase sets. The trade will also
be interested in the many CON-
SOLETTA RECEIVERS, midget
chassis in small loveboy cabinets.*

*Several FLEA-POWER MID-
GETS have put in their appearance,
using as few as four tubes. These,
together with the consolettes, provide
the trade with still cheaper radio
although the list price of man-sized
consoles has not generally declined.
A tendency on the part of a number
of companies to produce one or two
DELUXE RECEIVERS with all*



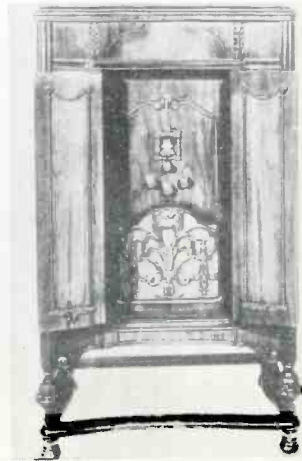
CAPEHART 401
Without radio



U. S. APEX 10B,
\$99.50
*Superhet., 3-var-mu,
4-27, 2-pent., 80*



GLORITONE 26B,
\$59.50
T.r.f., 3-24, pent., 80

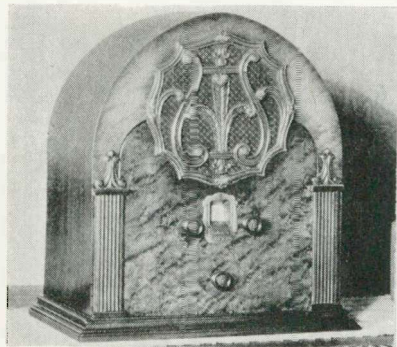


G-E COMB. H-71
Superhet., 9 tubes

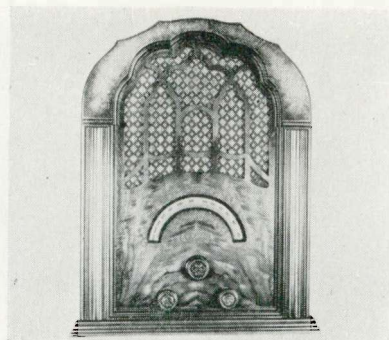


G-E JUNIOR S-22
Superhet., 5 tubes

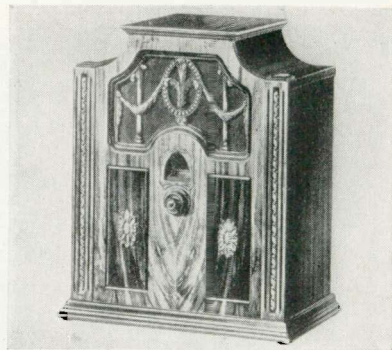
midgets



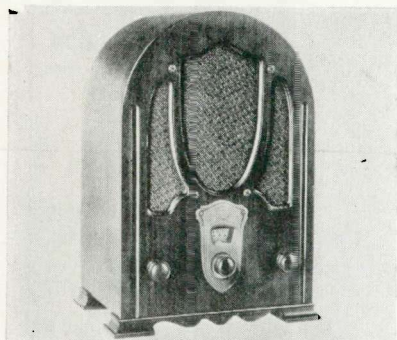
GULBRANSEN 130,
\$58 less tubes
Superhet., 2-var-mu,
2-24, pent., 80



LYRIC S-7, \$69.50
Superhet., 2-24, 27,
2-var-mu, pent., 80



BRUNSWICK 11,
\$79.50
Superhet., 3-24, 2-var-mu,
pent., 80

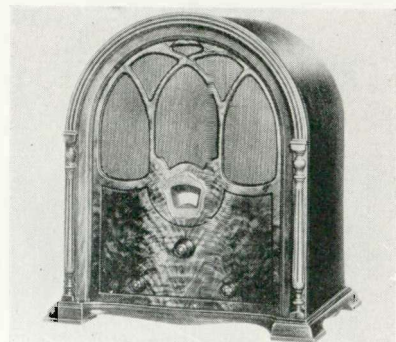


G-E T-12
T.R.F., 2-24, pent., 80

modern conveniences, such as **RE-MOTE CONTROL** and automatic record changers, may help dealers boost their average unit sale price.

SHORT WAVES have not been neglected. One manufacturer builds an **S-W CONVERTER** into his broadcast band consoles for \$22 extra. Another has introduced a universal receiver, tuning from 15 to 650 meters without the use of plug-in coils, in a console cabinet. Still another company offers a short wave set which is equally efficient for the reception of short wave sound broadcasts and 100 meter television signals. A number of **TELEVISION RECEIVERS** exhibited may be so used.

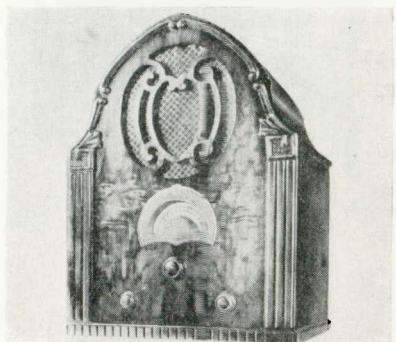
Advances have also been made in other home entertainment equipment design. One exhibitor has perfected a midget **AUTOMATIC PHONOGRAPH**, nickel-in-the-slot variety, which sells for \$195. Another has an automatic which will play through



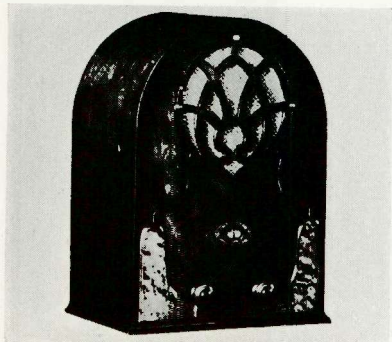
FADA 51



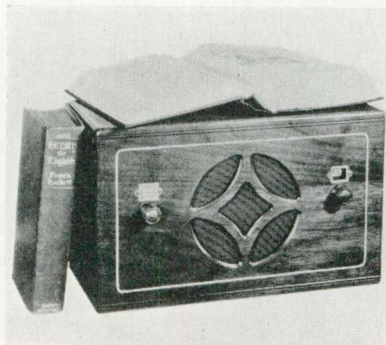
JESSE FRENCH TUQUETTE, \$54.50
T.R.F., 2-var-mu, 24,
pent., 80



STEWART-WARNER APARTMENT, \$52.95
Superhet., 6 tubes



SENTINEL 111,
\$37.50
T.R.F., 24, var-mu,
pent., 80



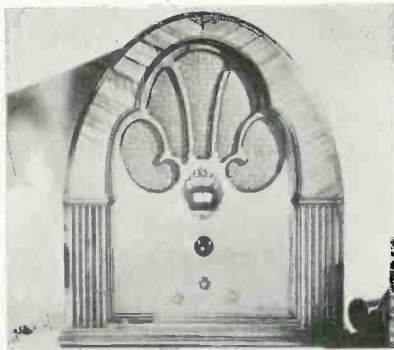
BOSCH PERSONAL,
\$43.50
T.R.F., 3-24, pent., 30



ICA ENVOY
T.R.F., 2-var-mu, 24,
pent., 80



SILVER-MARSHALL, \$59.50
Superhet., 7 tubes with var-mu and pent.



PHILCO BABY GRAND
Superhet., 3-24, 2-27, pent., 80

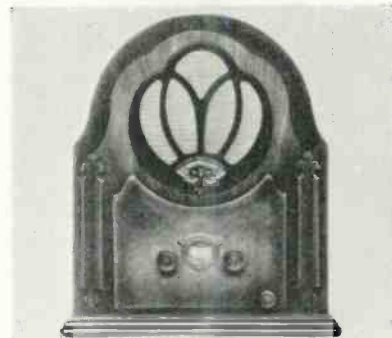


RCA-VICTOR RADIOLETTE,
\$37.50
T.R.F., 2-24, pent., 80



DEWALD

a stack of mixed-size records, reproducing one or both sides of each record, or will repeat one or both sides of any record selected indefinitely. TALKIE designers, not to be outdone, come through with a completely portable 16 mm. machine and several equally interesting self-contained home movie models. The latter, in the more elaborate styles, encompass a wide range of entertainment facilities—gives straight radio reception, plays phonograph records, projects silent films, is equipped with both small and large screen and tone control, can supply radio or disc musical background when silent films are run, and, of course, sound and picture synchronized.

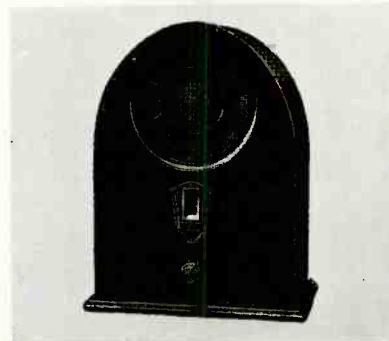


COLONIAL 39
T.R.F., 3-24, 45, 80



U. S. APEX 8A,
\$67.50
Superhet., 3-var-mu, 3-27, pent., 80

Many manufacturers who are not exhibiting at Chicago have nevertheless brought out new sets. Many of these, and also additional models of exhibitors, are shown on page 74, to which this pictorial section continues.



REVERE 399, \$39.95
T.R.F., 2-var-mu, 24, pent., 80



AUDIOLA 610,
\$48 less tubes
T.R.F., with var-mu and pent. tubes



CLARION 80, \$67.50
Superhet, with var-mu and pent. tubes



CROSLY SHOW BOY, \$49.50
T.R.F., 2-var-mu, 24, pent., 80

talkies, television, misc.



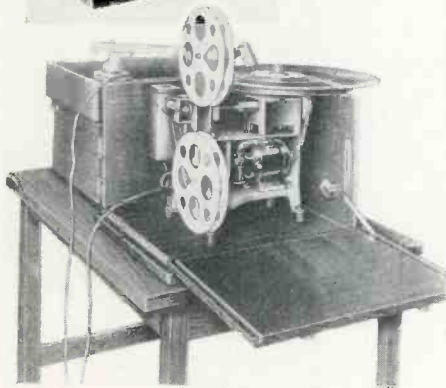
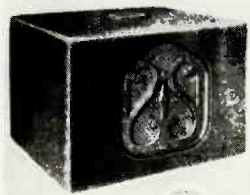
**SPRAGUE
VISIVOX C**
sound movie machine,
\$189 less tubes



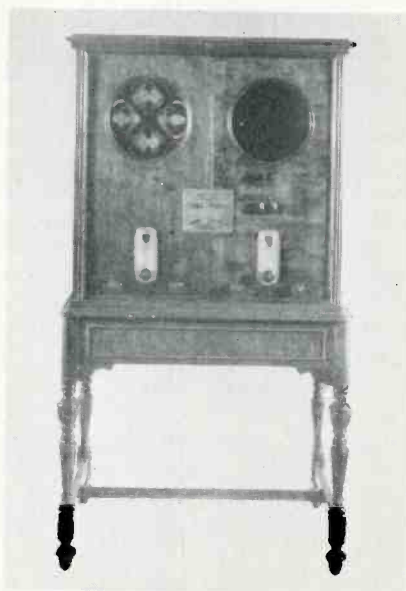
ALLEN-HOUGH
coin operated midget
automatic phonograph,
\$195 less tubes



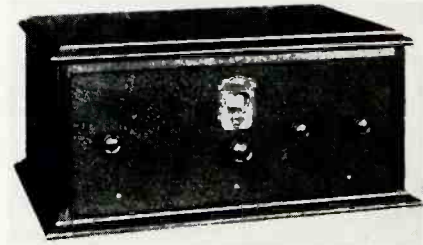
TALKIOLA
talkie outfit, \$495
with radio



**SPRAGUE
VISIVOX A**
portable sound movie ma-
chine, \$119, with model B
amplifier, \$169 less tubes



**JENKINS
TELEVISION**
Model F, \$335, less tubes
Television receiver, Tele-
visor



**SHORTWAVE RADIO &
TELEVISION LAB.**
short-wave receiver, \$110
less tubes (above). No.
36 televisor (top) \$100.
(kits \$95.10 and \$84.30)



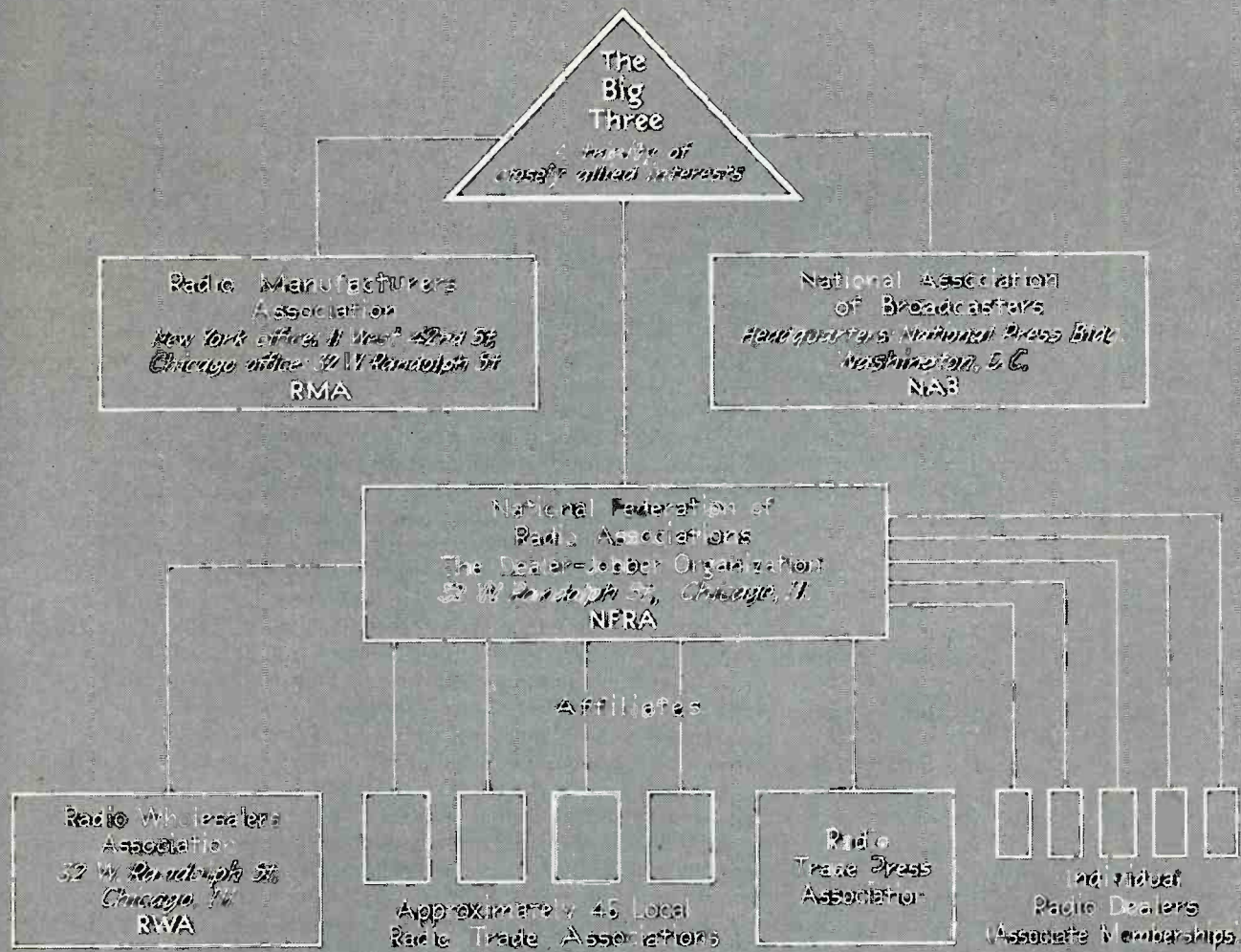
**NATIONAL
THRILL-BOX**
9-750 meters



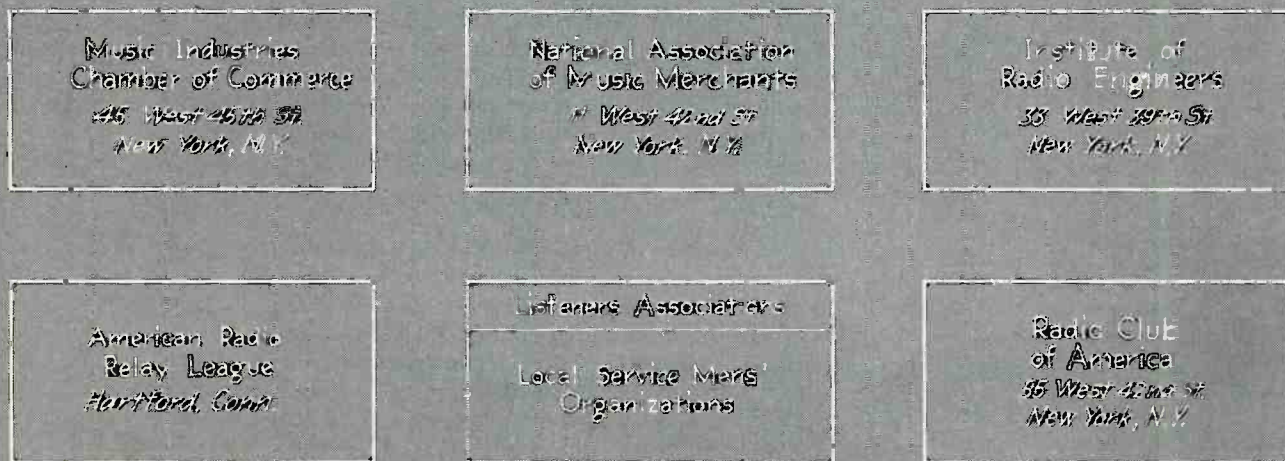
**JENKINS
TELEVISION**
receiver kit JK20, \$69.50
less tubes (right). Tele-
visor kit RK2, \$42.50
(above)



How Our Industry is Organized



Other National Organizations Related to the Radio Industry



You Can Use ONE of



Testers Sell Tubes

UNQUESTIONABLY an impressive tube tester prominently displayed is the biggest tube-selling factor a store can have. Here are two examples:

A year ago Kinney Bros. & Sipprell, of Everett, Wash., developed a tube-testing machine to test the customer's tubes in his presence. From the file of accounts, which had not been heard from for more than a year, 814 names were selected and to these three post cards were sent announcing the new instrument. Replies were received from 283 prospects, all of whom brought in their tubes for testing. To 90 per cent of these, tubes were sold, the total sales amounting to \$1,621, of which \$1,490 was in cash. The total cost of advertising came to \$52 and the event took exactly three weeks.

Since then the idea has further developed until a regular system of tube selling is now in use based on these factors: The tester is in the front of the store; a girl telephones those in residential districts; postal cards go regularly to all set owners; special tube cartons are provided; testing labels are affixed to all tubes.

WESTERN MICHIGAN MUSIC COMPANY, Grand Rapids, Mich., has designed a "giant" tube tester that lights the following signs: "Tube Burned Out," "Tube Shorted," "O.K. to Test."

If the latter sign flashes—for customers who stroll in and are encouraged to make these preliminary tests themselves—the tube is ready for further, expert check-up, by the counter clerk who uses the usual type of accurate tester, except that it has a

12-in. meter. Such a spectacular testing assembly also goes well as a window attention-getter.

Western will mail fellow dealers the diagram and further details as to the equipment and how to go about duplicating such a device.

Automatics

THIRTY per cent of the extensive radio business of

The Aeolian Company, 689 Fifth Avenue, New York, is represented by the sale of automatic-feed, radio-phonograph instruments.

Here's a better one than that: The concern Aeolian represents (Capehart) is about to market a "de luxe" affair to sell for about \$700. Preliminary, word-of-mouth advertising—dealer to customer to customer's friend, who happened to belong to the titled gentry of England—brought an order by cable from the latter for one of these new instruments, sight unseen. This true incident is cited to show the degree of interest which today exists among people of discrimination and wealth for recorded music—automatically dished up.

"How do you attain this high volume ratio?" we asked Manager P. R. Bowers.

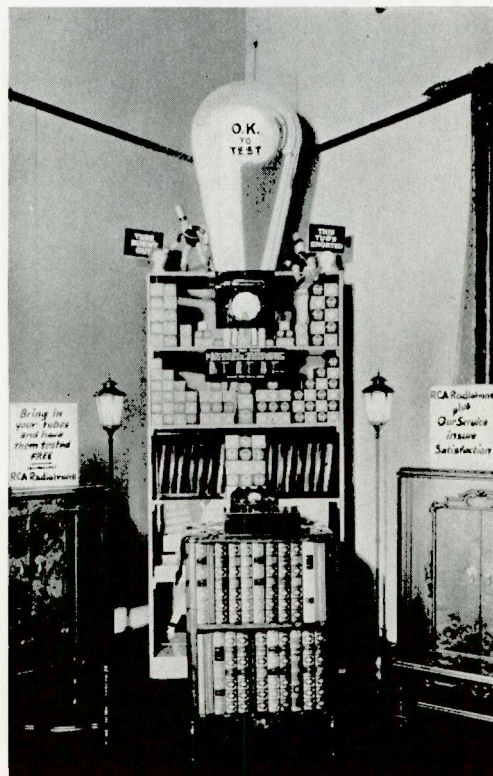
"Of course our following is high class," he explained. "But, for that matter, such must be the case with countless other stores all over the country. No, I think that the fact that I have insisted that my salespeople push automatic combinations is 50 per cent of the answer."

Bowers claims that many people are tiring of radio programs as now presented. These are his best prospects. When such a customer expresses this sentiment the advantages of controlling his own source and character of musical entertainments is pointed out and demonstrated.

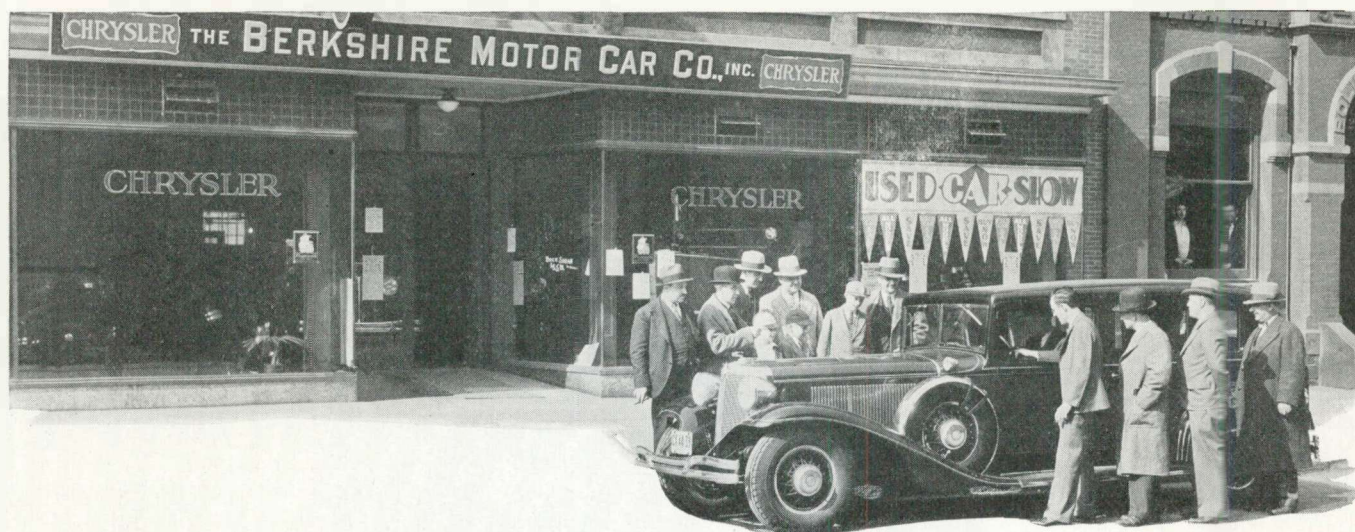
Another prolific feeder is the record counter. "On what type of phonograph are you going to play these new records?" the experienced record clerk asks. If the reply indicates that the client is getting tired of being an unpaid attendant to the frequent demands of a talking machine, another prospect is led over and introduced to the "automatic" salesman.

Women who entertain at bridge and afternoon teas are especially fine prospects for the appeal of the self-feeder. With such an instrument, it is explained, 40 minutes of exquisite chamber music, personally selected to suit the occasion and played, apparently, without human attention, will provide a perfect musical background.

Due to the sales pressure placed behind the automatic record player record, sales are ahead of last year.



THESE Ideas



Renting Radios

DONALD HULL, proprietor of the Marengo Avenue Radio Shop, Pasadena, Calif., has built up a large business throughout the Los Angeles territory in radio rentals and in sales resulting from such rentals.

One famous hotel in Los Angeles requires for its incoming guests as many as 20 radio sets per day. Since the rental rate is \$2.50 per day, with 50 cents of that going to the hotel management, and since the residents of this hotel are representative American families who know how to treat a radio set when they get it installed, a fine profit is obtained from this business.

The greatest number of sets, however, are rented on a three months' basis. The rental rate is arranged so that three months' rental will equal three-fourths of the cost of the set.

Hull guarantees service and tubes for 30 days. Sets designated as rentals are never sold but always kept for this purpose, thus protecting the sales department. It would be unwise to let the impression get out that sets were used for rental purposes and later placed on the sales floor. The rental and sales departments are kept apart.

Hull buys bargain sets and utilizes reverts for this purpose. The sets ordinarily used retail at from \$60 to \$90. Rentals range from \$8 to \$11 per month. The radio rental department is advertised in the classified sections of the daily newspapers.

"Every person wishing to rent a radio must come to the store," says Mr. Hull. "The greater the number of people entering a store the greater the number of

Auto-Radio

WHAT'S the idea? Simply this: Schillers, Inc., radio dealer in Albany, N. Y., sells sets for motor cars. By arrangement with a neighborhood auto agency one of the latter's cars has been equipped for radio reception. Left standing by the curb, tuned in on a local station, it creates prospects for both the auto dealer and for Mr. Schiller.

mobile sweet radio music is issuing. What's the idea? Simply this: Schillers, Inc., radio dealer in Albany, N. Y., sells sets for motor cars. By arrangement with a neighborhood auto agency one of the latter's cars has been equipped for radio reception. Left standing by the curb, tuned in on a local station, it creates prospects for both the auto dealer and for Mr. Schiller.

sales. If it is better for a person to buy a radio than to rent one, we make it our business to try to sell him one. Renters frequently become buyers and sales lead to rentals. The two departments supplement each other."

"Our business has been built up largely because of our rental policy. It takes capital to rent on a large basis, but the dealer who can capitalize himself properly ought to be able to make good in any large city where the population is shifting."



Farmers MAKE the

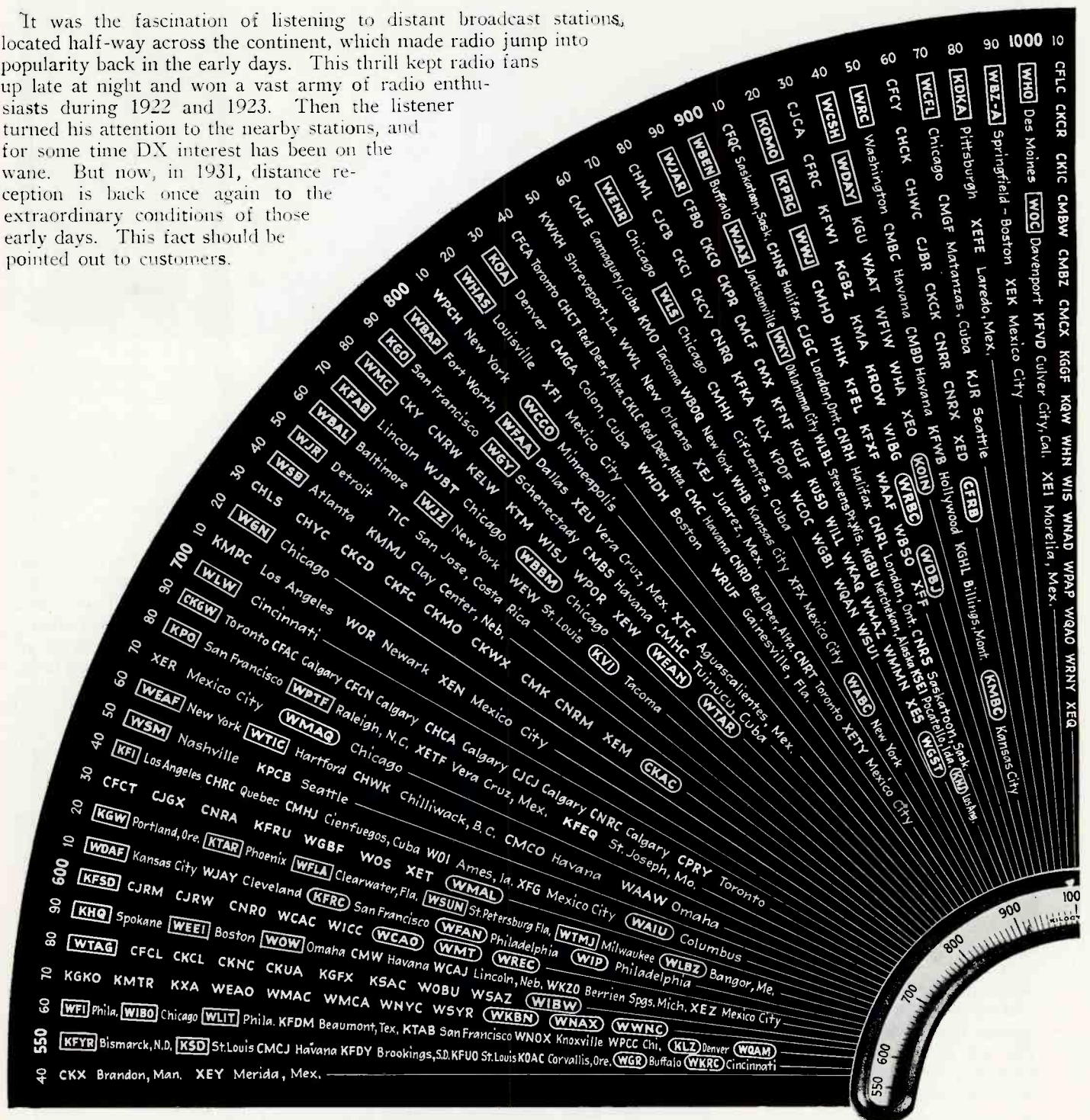
also contact your farmer prospects, insists J. C. Watkins, Watkins Sales and Service Shop, Tabor, Ohio. Mailing pieces and letters, direct from the factory, create a favorable impression—double-barrel shooting, in other words.

Watkins aims to get one new rural prospect per day. Each Saturday he mails these names and addresses to headquarters—for "personal" follow-up by the national sales manager.

"Of course I keep in close touch with each battery set prospect myself, but factory backing helps me close in half the usual time. Saves money, too."

Sell Your Customers

It was the fascination of listening to distant broadcast stations, located half-way across the continent, which made radio jump into popularity back in the early days. This thrill kept radio fans up late at night and won a vast army of radio enthusiasts during 1922 and 1923. Then the listener turned his attention to the nearby stations, and for some time DX interest has been on the wane. But now, in 1931, distance reception is back once again to the extraordinary conditions of those early days. This fact should be pointed out to customers.



This convenient diagram will help you quickly locate the principal broadcasting stations of the country. It shows where they may be found on the dial of your receiving set. The channels used are indicated at 10-kilocycle intervals, from 540 kc. to 1,500 kc.—following the standard station spacing.

THE TRADE HAS WORKED ITSELF UP INTO A LATHER ABOUT TELEVISION. *Department stores, five-and-tens, radio dealers that scarcely gave it a tumble six months ago are advertising, demonstrating. What started all this sudden activity? Better pictures? More stations? Cheaper sets? Improved programs? Close study indicates that it is none of these. Answering these questions in order, we repeat a description of the image available with typical home televisors which appeared in our December issue:*

"No televisor designed for home use, to our knowledge, produces an original picture over 1½ inches square.

"Magnifying lenses are provided in most commercial jobs which increase the image size to a maximum of 8 inches square.

"Such lenses, with their narrow focal angle, prohibit the comfortable viewing of the image by more than three persons at one time and even this number must be carefully grouped.

"Horizontal lines corresponding to the number of holes employed in the scanning disc are plainly visible in all transmissions, though these do not materially obscure the image.

"Flicker is not objectionable.

"Images have a pronounced color tint due to the use of gaseous lamps as sources of illumination but despite this coloring the detail is good enough to permit recognition of a familiar face.

"Co-ordination of the televised picture with sound produces a pleasing illusion of realism which partially compensates for lack of minute detail.

"All home televisors which have appeared to date must be operated in a completely darkened room if satisfactory picture brilliancy is to be obtained.

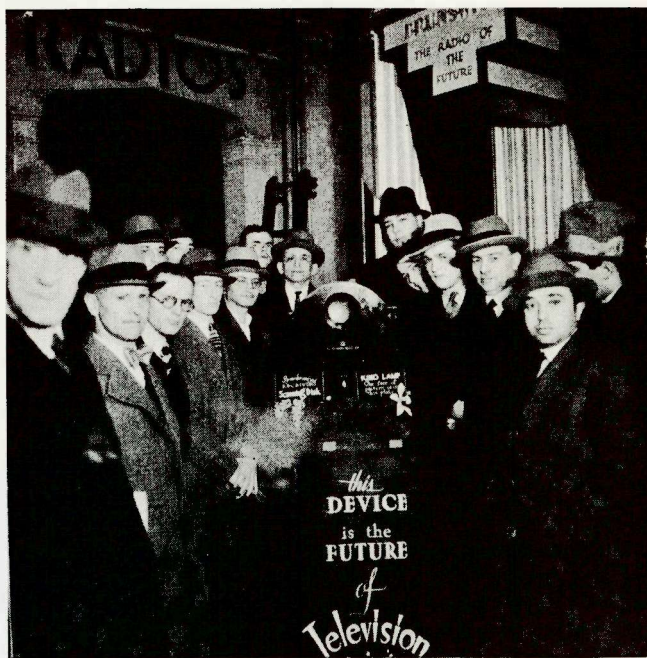
"Framing, or the centering of pictures in the televisor viewing aperture, is easily accomplished though at times all pictures creep and waver.

"Static and electrical disturbances are more noticeable in televised pictures than in sound reception."

This description still stands.

A few new television transmitters have gone on the air, notably 2XCR in conjunction with WGBS (sound) in New York, already served by two pioneer picture broadcasters. The opening of this station could scarcely be credited with the trade activity noted at distant points. In all, 20 stations are licensed, while only 8 transmit regularly; 3 in New York, the others in Wheaton, Md., Chicago, Boston, Passaic and Camden, N. J. It is rumored that several others are to open and this will give television an appreciable boost. NBC already operates a television station and CBS has been playing with the idea for months.

Televisor prices have remained substantially the same. And programs have not yet reached a point where they compare with early sound broadcasts from the standpoint of sustained entertainment value. Broadcasters are working hard to better the quality of programs which will undoubtedly improve this year.



Crowds flock to Bloomingdale's in New York to see picture programs brought in on a Jenkins

On The Dealers are

WHAT then, has so stimulated the business? This is our guess:

1. *The daily papers have given television widespread publicity; because the public eats up news of this "eighth wonder," because it helps bolster up backsliding radio sections and because radio lately has lacked that fast moving quality so necessary in fodder for hungry presses.*

2. *Retailers who are determined to get in on the ground floor of an industry whose development may parallel the profitable, speedy growth of radio, have discovered that public interest is at fever pitch and are buying televisors with which to entice home entertainment equipment buyers to their stores.*

3. *Television manufacturers are booming their wares for all they are worth to a trade that would welcome any important new development, in order to secure funds necessary for the further perfection of equipment which obviously has tremendous potentialities.*

Consider that the public has at last had a taste of something promised for years, that these same people saw radio, a similar service, grow into a billion dollar actuality almost overnight and it is not difficult to understand why television is experiencing a decided boom despite the fact that no material improvement has been made in home television equipment in the past year or more.

Public interest is higher than the efficiency of today's



Waltham's, Cortlandt Street, demonstrates an Insuline televisor and miniature transmitter every hour.

First RUNG

Buying... Demonstrating Televisors

equipment would appear to justify. Manufacturers freely admit that television is in the experimenter's-market stage. They admit that the equipment is still unsuited for the average home.

TELEVISION news may be summed up in a paragraph. Stations in the east have standardized upon 60 line, 20 frame transmission, making it possible to scan them all with one disc. This is a sensible, long needed move. Kresge department stores in many cities have demonstrated televisors, report the sale of parts comprising short-wave receivers but only a few of the components used in the construction of the actual scanning units have passed over their counters. Arthur Freed, of the old Freed-Eisemann outfit, has announced his intention of building televisor kits in Long Island City, thus giving us six manufacturers actively in the field: Freed, Insuline and Jenkins in the New York area. Western Television, Chicago; Shortwave Radio & Television, Boston and Television Sales, Inc., in San Francisco.

Certain things are now apparent. It is evident that there is an immediate experimenter's market for televisor and shortwave receiver parts although the experience of dealers to date indicates that while public interest is running high few of the "lookers" actually dig down and buy. What volume of business is possible at this stage of the game? Well—you tell us.

Retailers themselves will probably purchase the bulk of the complete television outfits sold by manufacturers in the next few months for store demonstration purposes. Television and shortwave reception are likely to aid each other greatly inasmuch as many television receivers may also be used for long distance sound program reception on the higher frequencies. The double purpose idea will help 'em both.

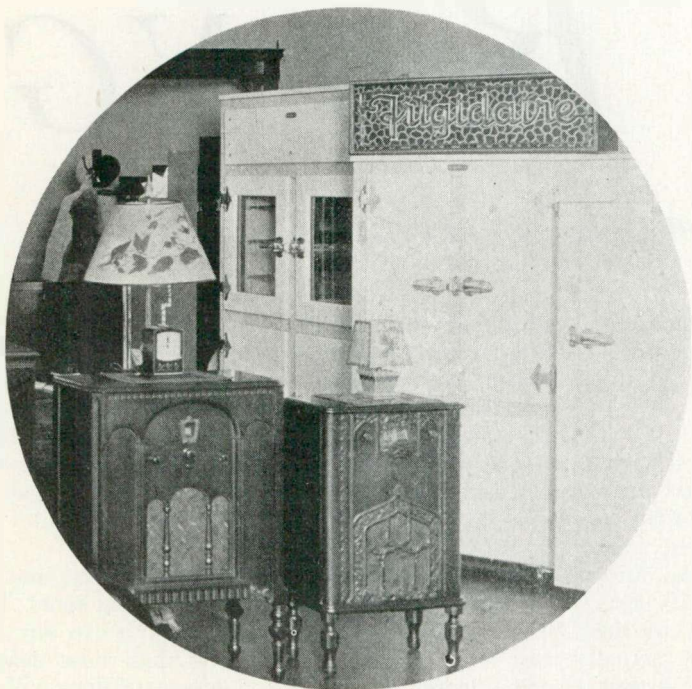
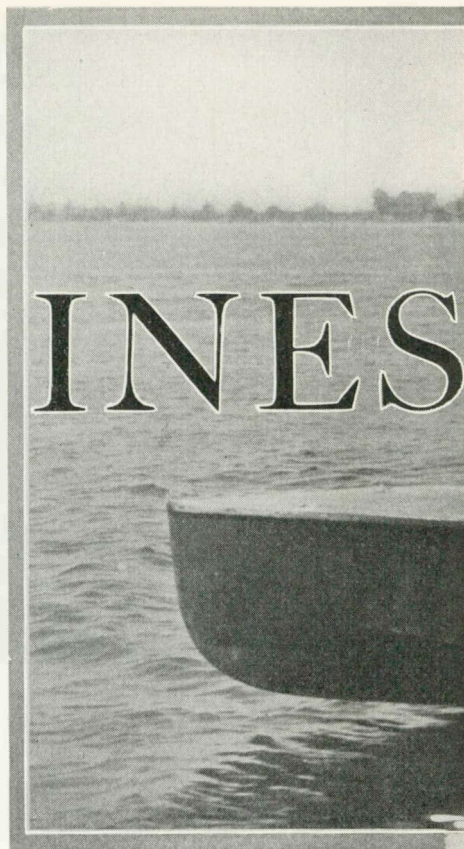
THE trade needs new, live merchandise and will undoubtedly have a whack at the flying spots. This is to be encouraged. It costs only \$100 or so to buy one televisor and it is more than likely that those dealers who spring the first neighborhood demonstrations will get their money back in publicity alone. It may be that the sale of parts and kits will quickly develop into a sizable business.

Care must be taken that in using television to stir up interest the impression is not created that "the microphone has already given way to light," as a prominent newspaper shortsightedly advertises. This sort of thing may sell a few experimenters in a hurry but will certainly injure consumer interest in home entertainment equipment of all kinds, including television itself.

Used properly, even in its present state, television can be of tremendous value to the trade. The need for conservative promotion of the device, the dangers of over enthusiastic promotion, should nevertheless be fully recognized.

Summer's *Livest* LINES

FROM SYRACUSE *Come These*
Two Experience Stories of Radio
Dealers Who Know How to KEEP
GOING during July and August



ELECTRIC REFRIGERATORS

FROM the radio man's viewpoint, what two complementary lines are likely to elevate that well-known summer sag in set sales? Two hundred leading radio merchants were asked this question recently. The vote was decidedly in favor of electric refrigerators and outboard motors.

This opinion is not based on sentiment alone. Here, for example, are two dealers, both in Syracuse, N. Y., who are finding a more than satisfactory profit from these activities—one specializing on refrigeration, the

other merchant in outboard motors.

During his "warming-up" period, January to May inclusive, C. E. Alberts sold 20 electric refrigerators; this with but one salesman and in the face of special difficulties in obtaining delivery. Based on this showing, and the receptiveness of those solicited, his bogie for June, July and August has been set at fifty sales (Majestic).

Alberts finds that reliability of mechanical and electrical performance is taken for granted. He builds his talk, therefore, on these four foundation points: eye appeal, convenience of interior arrangement, ease of purchase and dollar-saving ability. The latter, reduction of food bills, is particularly appealing just at this time.

Competition in the electric refrigeration field is keen. The dealer must keep in exceptionally close touch with his prospects. He must follow up personally, or through his salesmen, every prospect-building plan he employs, whether it be a direct-mail campaign, a telephone canvass or a radio broadcast.

For instance, in the city of Syracuse, in which there are 45,000 electric meters, there are over 40 dealers handling refrigeration. In such a field, the necessity for a dealer keeping hot on the trail of every prospect immediately becomes apparent.

Prior to a year ago Alberts sold radio in the popular manner. Store sales, honest service and a reasonable



OUTBOARD MOTORS

amount of advertising. But with the taking on of this new venture he was forced to develop a new approach to the prospect or flop entirely. Thus keen competition has proven a blessing in disguise, because it has necessitated a shaking off of the old conservatism. Now that his decks are cleared for action, he faces the coming summer without fear or favor.

In the matter of delivery expense this concern has found it advisable to hire this work done on contract—especially as he puts out refrigeration on a short “trial” basis. The charge is \$3.50 to any point in Syracuse. As four men are necessary for such a delivery, it is apparent that Alberts would find it difficult to make a similar delivery as cheaply even though a truck were available for this work.

Before the truck leaves, the padded cover is removed for the reason that experience has taught him that delivery men are very much more careful with an unprotected box than they are with one that is padded. In addition, this careful handling of the refrigerator makes the job seem quite laborious, thus impressing the prospect with the fact that it is a lot of work to make such a delivery, and that the dealer has gone to considerable trouble and expense to make it. The impression justifies the statement (and Mr. Alberts’ experience has proven it true) that once in, an electric refrigerator seldom comes out of a prospect’s home.

With many refrigerators on the market from which to choose it is a fair assumption that a certain type of “suspect” will take advantage of this home demonstration offer. Any dealer who has been in business for any length of time, however, is pretty well acquainted with these persons and can usually stay clear of them.

“In any event,” Mr. Alberts says, “I don’t worry about them. What I do worry about is missing a person who actually wants an electric refrigerator.”

“All in all,” Mr. Alberts concludes, “It is a clean, satisfactory business and offers a reasonable profit to the dealer. There are, of course, many sales promotion plans available for dealers’ use that I am not taking advantage of, simply because I have found that the best way to sell the merchandise I handle is to go out and talk it in the home. As I said in the beginning, I think electric refrigeration has a whole lot in its favor and I am firmly of the opinion that in my own case it is the answer not only to summer but to year-around profits.”

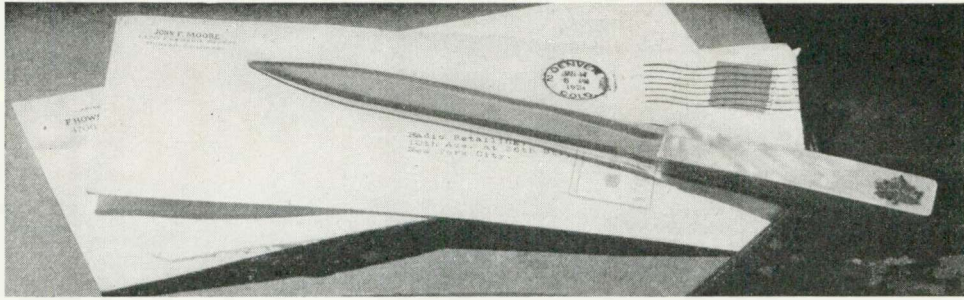
THE Potter Company, nominally a radio dealer, sold \$26,000 worth of outboard motors during the spring and summer of 1930. This year, from all indications and in spite of the times, it will top this imposing figure. And this outstanding record in spite of the fact that the nearest real body of water is 13 miles from Syracuse.

No, you don’t have to be in the boating business or live at the water’s edge to sell “putt putt’s.”

The market is a broad one. Professional people, teachers, all who love the water, fisherman and especially excitement seekers—“those who appreciate the greatest, and safest thrill in the world,” according to Mr. Potter. Prospects multiply rapidly, mainly through word-of-mouth enthusiasm of recent purchasers.

Potter’s main business-producing stunt lies in his active cooperation in the promotion of a series of motor boat

(Please turn to page 80)



VOICES FROM THE MARKET PLACE

RMA and Show Sponsorships

Dear Mr. Suttiffe:

OUT of the mass of correspondence and conversations that I have had with individuals in the trade, I have been impressed with one fact; that is that many members of the trade are under a misapprehension as to the relationship of the RMA to the trade and public shows. Probably because the RMA has sponsored the Chicago and New York shows in the past, the use of their name and insignia has created the impression in the minds of many that the RMA was running all three shows.

It is not probable that the RMA will continue sponsorship of the New York and Chicago Shows, or of any public shows, but will confine its efforts to conducting the annual trade show and convention.

MORRIS METCALF, *President,*
Springfield, Mass. *Radio Manufacturers Assoc.*

Should Be "Too Brief to Tune Off"

EDITOR, *Radio Retailing*:

MAY I not offer the following, in response to your appeal for comment on objectionable and long-winded advertising announcements on the air:

Mr. Volney Hurd in a recent newspaper article on the subject stated that announcements should be of such length as to be "too brief to tune off." And advertisers that defy this rule might just as well pour their money into the river as far as good will with their customers is concerned.

Minneapolis, Minn.

M. E. FOSTER,
The Foster Co.

Will Anyone Accept This Offer?

Editor, *Voices from the Market Place*:

IN THE February number, there is a letter from K. W. Geyer to the effect that the radio industry is in need of an up-to-date and scientific name for the phonograph or phono-combination, and I certainly agree with Mr. Geyer. The word "phonograph" brings up a picture of a wheezy little contraption of ancient vintage, with a tone like an unoiled wagon wheel.

The fact is that I have had considerable success in creating and originating some excellent names for techni-

cal products such as radio and electrical devices. I think that I can submit about half a hundred good name suggestions for use in lieu of "phonograph."

The thing is, where or to whom shall I send them? Do you think that some manufacturer has the initiative to offer a radio (a midget would do) in return for a good acceptable name?

Buffalo, N. Y.

EDWARD SCHULTZ.

Where Is This "Price" Business Taking Us?

EDITOR, *Voices from the Market Place*:

IT IS high time that dealers stop to consider what is happening in the industry, and what more will happen if they continue encouraging those manufacturers who seem to believe that "pride of ownership" and other motives which help sell *quality* over cheapness have disappeared entirely. They are most terrifically mistaken in their belief that price and price alone will sell instruments.

People have heard enough about price, and it's high time to put a check on the "buy the cheapest instrument" tendency. If it's not checked soon business will rapidly deteriorate to such an extent that it will not be worth while to anyone.

Why encourage this sort of thing any longer? Tell the fellow who offers a cheaper instrument that this cut-throat business has gone far enough and you're willing to work a bit harder to sell "good" instruments.

Laporte, Ind.

HARRY F. SONNEBORN,
Sonneborn-Kemp Co.

Going to Have It Published

EDITOR, *Radio Retailing*:

I CONSIDER the article in "Editorial Observations" in a recent issue worth to me many times the price of *Radio Retailing*. I am referring to the write up on "Fading and Mushing." I have been almost driven crazy from this complaint this year and I am going to have this article published in the local paper (giving you credit, of course) at my own expense if I cannot get the other radio dealers to help. I am very grateful for this help and you can consider me a subscriber as long as I am in the radio business.

Shenandoah, Pa.

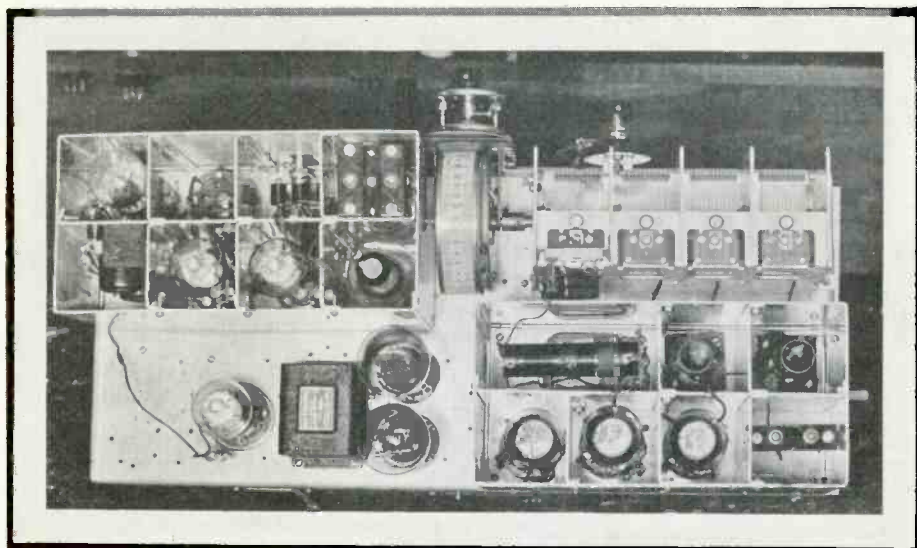
P. F. BARRETT,
Barrett Radio Service.

The Stenode

How the Latest Laboratory Model LOOKS...WORKS



The crystal tube (fourth from left, top) precedes a two-stage i.f. amplifier in this Radiostat, while the transformer in the foreground comprises the audio correction system. Controls, from right to left, are three-plate midget in crystal bridge circuit, 200-1 tuning dial and volume control resistor



AN EXHIBIT which will attract much attention at the Trade Show is that of The Stenode Corporation of America, despite the differences of opinion which still exist in engineering circles concerning the value of Dr. Robinson's quartz-crystal superheterodyne. The set has intriguing possibilities and in order that our readers may keep abreast of technical development we present a picture, photographic and verbal, of the latest receiver developed in the Hempstead, N. Y., laboratory of this company formed to license American manufacturers.

The Basic Circuit

FOR the benefit of those not already familiar with the circuit, the Stenode Radiostat differs from a standard superheterodyne principally in the use of a quartz-crystal between the first detector and intermediate frequency amplifier. The crystal vibrates mechanically between two spaced metal plates, the frequency of oscillation depending upon its physical dimensions. Signal frequencies identical with, or close to, the natural frequency of the crystal pass through it freely to the i.f. amplifier while others are excluded.

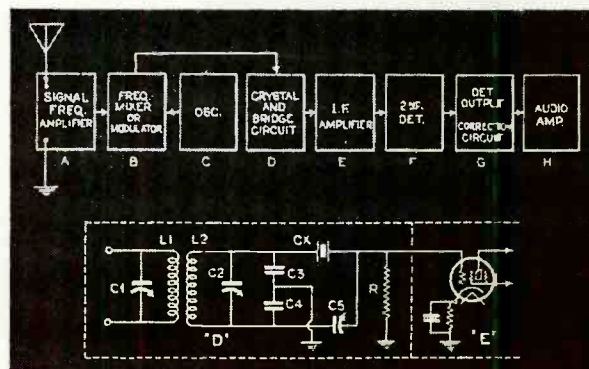
The two plates of the crystal mounting constitute an unwanted capacity. This capacity partially frustrates the purpose of the highly selective crystal by passing signals considerably off wave to the amplifier. So the crystal is operated in a "bridge" circuit utilizing a three-plate midget as one arm. By tuning this midget until its capacity matches that of the crystal holder current induced in the system by unwanted signals flows in the bridge arms in opposite phase, cancelling its output. Undesired signals are thus prevented from using the

capacity of the crystal holder as a path while the desired signal passes through the oscillating crystal to the i.f. amplifier unimpeded.

The output of the crystal, according to Dr. Robinson, is *inversely* proportional to frequency, low frequencies passing through it more easily than do high frequencies. This produces greater amplification of low frequencies than of high. The output characteristic is restored to the desired linearity by including a filter, the characteristic of which is *directly* proportional to frequency, between the second detector and the audio amplifier.

In one Stenode to be exhibited at Chicago, selectivity is obtained principally in the crystal circuit. Two stages of i.f. amplification are provided but contrary to usual practice these are broadly tuned. The first stage is resistance-coupled while the second uses an untuned transformer. The crystal tube employed is imported

(Please turn to page 80)



The basic Stenode Radiostat circuit

SERVICE SHORTCUTS



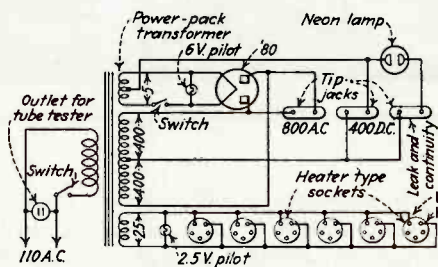
Pre-Heater and Condenser Tester

By Fred Lichtgarn

When testing a batch of heater-type tubes a pre-heater saves considerable time. So I have built one for our shop out of odds and ends. With this instrument it is possible to pre-heat six tubes simultaneously and also to check condensers. The shape of the case, shown in the photograph, permits it to be fastened to the wall directly in the line of vision and allows easy placement of tubes.

High voltage is supplied by an old power-pack transformer, which also furnishes filament current for a 280 and for the tubes to be tested. Eight hundred volts a.c. is useful for testing across doubtful by-pass and filter condensers. A defective or leaky unit shorts when the test leads are applied. (Ed. Note: Condensers designed to operate at less than 1,000 volts d.c. should not be tested on this winding.) Four hundred volts d.c., also available at tip-jacks, serves to charge condensers under test in order to determine whether or not they will hold a charge. If a spark can be obtained across

is leaky the lamp will glow intermittently or rapid variations in brilliancy will be noted as the resistance of the leak changes under load. I find also that the neon circuit is useful in testing across high resistances of from 50,000 to 3,000,000 ohms for continuity. These values permit the lamp to glow.



A voltage divider resistance might also be placed across the 400 volt d.c. supply terminals to provide lower voltages for other tests.

be soldered and, therefore, provision must be made for terminals. This is accomplished by removing the enamel from very fine wire of the sort used in audio transformers with a piece of tightly folded sandpaper and wrapping it tightly around the tinsel lead for about 1/4 inch, letting it overlap the tinsel lead insulation slightly in order to hold it in place.

By using a hot iron and applying solder quickly this winding affords good contact. The leads are soldered to the voice-coil terminals and then sewn in place with a needle and thread for about one inch of length. A thin coat of shellac should then be applied both inside and outside where the sewing has been done.

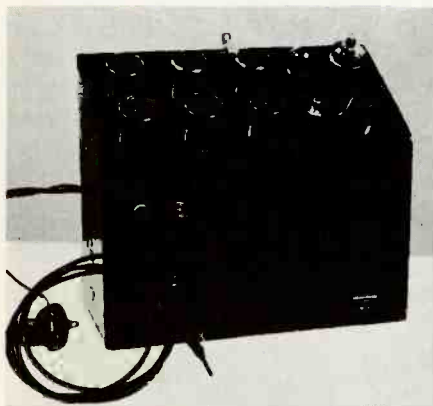
"Plug-In" Output Meter

By Bert Reboin

Output meters are usually difficult to connect to voice-coil leads. I have one that is plugged into the final audio stage and used as easily as an analyzer. A 4-prong

Condenser Replacement Chart

The Potter Company of 1950 Sheridan Road, North Chicago, prints a chart that every serviceman should have. It facilitates by-pass and filter condenser replacement by giving the capacity and physical size of units used in sets produced by nearly 100 manufacturers. Write to Potter, mention *Radio Retailing*, get one free



the terminals of a condenser so charged 5 minutes later it is, generally speaking, o.k.

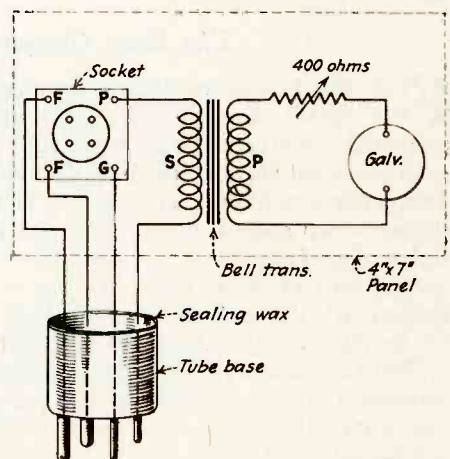
The 400 volts d.c. in series with a small neon glow lamp also shows up leaky condensers. If a condenser is o.k. when placed in this circuit the neon lamp will not light or will just barely glow. If the condenser

New Voice-Coil Leads

By Charles Andres

Manufacturers use different methods of bringing out leads from the voice-coils of dynamic speakers. These leads are often broken and resoldering usually does more harm than good. We have found the following method of making such a repair highly satisfactory; not one has come back.

Obtain speaker or phone cords made from tinsel braid. This material cannot



tube base is connected, as shown in the accompanying illustration, to a socket. The secondary of a bell-ringing transformer is inserted in series with the plate lead between these two parts and a 0-115 ma. full-scale thermo-galvanometer in series with

the transformer primary and a 400 ohm variable resistance. Meter, resistance socket and transformer are mounted in a 4x7 in. case for convenience. (Ed. Note. The resistance value is not critical and low-range a.c. ammeters as well as thermo-galvanometers having different scales may be used).

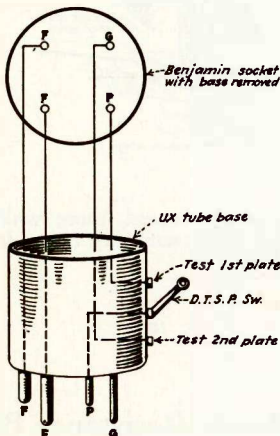
In operation, the power tube is removed from the set under test and the tube base adaptor inserted in its place, with the tube inserted in the output instrument socket. The resistor dial is varied for about $\frac{1}{2}$ scale deflection and left there, unless the needle goes off scale, in which case more resistance is cut in. With a 60 cycle a.c. modulated oscillator hooked to the input of a good receiver this setting gives good results and it is not necessary to scrape insulation or make a universal joint out of your wrist in order to get at voice coil connections.

In a set employing a final push-pull stage the adaptor may be used in either of the two sockets.

Testing Both Plates of an '80

By F. W. Seaton

Many of the old type tube checkers are connected to test only half-wave rectifiers, or one plate of an '80. An adaptor may be made from a UX tube base, a double-throw single-pole switch and a Benjamin type socket with the base removed, which



will permit both plates of a full-wave rectifier to be tested.

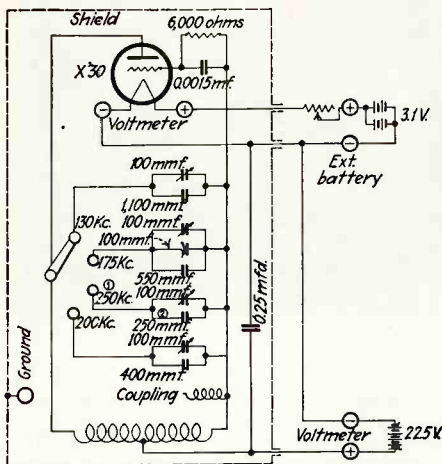
Plug the adaptor into the tube checker socket, insert the rectifier in the top of the adaptor and swing the switch from one side to the other. The switch terminals, which resemble the old-fashioned taps on the type shown, may be tapped directly into the tube base.

Temporary Voltage Divider

By J. A. Bellemare

When a section of an a.c. set's voltage divider "blows" it often takes a week or more to obtain a new unit. The customer

has to do without a radio during this period. I connect a good variable resistor across the burned out section, vary it until the set operates satisfactorily and leave it in place for temporary operation until the new part arrives.



Jewell "Harmonic" Oscillator

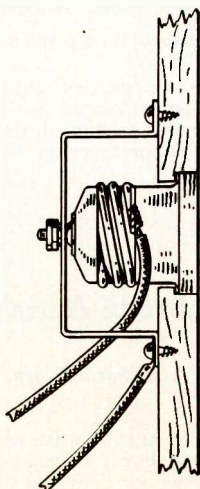
This is the schematic of the new Jewell model 330 multi-frequency oscillator which generates test signals at the fundamental frequencies of 130, 175, 200 and 250 Kc. and also utilizes the harmonics of these frequencies to provide signals also at 750, 1,000, 1,250 and 1,500 Kc. Provision for venier variation is made in the vicinity of 175 and 180 Kc. to permit flat-top characteristics of intermediate frequency amplifiers to be checked.

A Low-Cost Bench Outlet

Raymond T. Peschek

Formerly, the regulation wall socket and plate were used on our work bench and test panel. But these were difficult to mount and more expensive to replace than home-made types we now use.

The ordinary female plug such as is used on line extension cords was revamped for use as a socket for the line plug. A strip of brass or aluminum about $\frac{1}{2}$ in. wide is bent in the shape of a "U" and this serves



as a mounting bracket. A 6-32 flat head bolt can be soldered to the center contact of the plug. A hole is drilled in the center of the "U" piece to admit this bolt which holds the socket rigid. Connections are soldered to the bracket, which makes contact with the bolt, and to the sleeve of the plug.

A worn socket plug of this type may be easily and quickly replaced at low cost and the mounting requires the drilling of only one round hole in the bench.

Double-Purpose A.C. Voltmeter

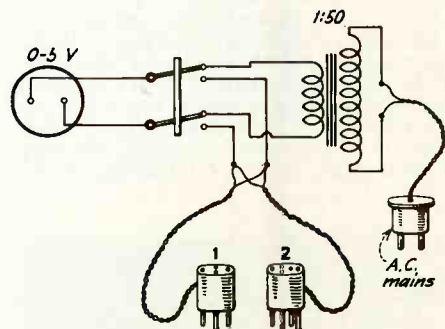
By G. Roes

I have found that many complaints of listeners who failed to get the proper results from the a.c. receivers were due to the line voltage being too low. A simple checking device, enabling the service man to find out if the line voltage and the voltages supplied to the tube filaments is ade-



quate has been designed and proves useful.

By means of a double-pole changeover switch, a Weston model 476 0-5 a.c. volt-



meter is connected either directly to a pair of adaptors or via a 1:50 ratio transformer directly to the line. By setting the switch in the proper position either the tube cathode or the line voltage may be instantly checked. In the latter case the reading of the instrument is multiplied by 50.

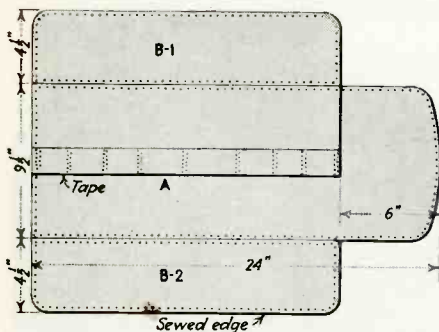
The transformer is of the bell-ringing type. The proper ratio was obtained by removing a few turns from the primary winding. No energy is lost in series resistance, using this arrangement, and it is not possible to burn out the instrument by connecting it incorrectly.

A 1931 Service Kit

By Charles Schafer

Today, the serviceman is called upon to adjust and repair not only radio receivers but many allied home entertainment devices as well. These include automatic record changers, phonograph motors, generators and remote control devices, with the list shortly to be swelled by the sale of home talkies and television. Sketchy tool kits of the screw driver and plier variety, for this reason, no longer suffice. More complete equipment must be carried by up-to-the-minute men and the following description of a kit with which service work of a varied nature has been satisfactorily handled for some months should therefore be of general interest.

The carrying bag, illustrated, is made of hard, vulcanized fiber and is 18 in. long, 12 in. wide and 7 in. high. A 1½-in. wide leather strap, riveted inside the 1 in. cover, holds service data sheets; 14 tubes, in their original cartons, are held in place along three sides of the case by heavy pasteboard partitions, two of these being 5½ in. high by 8½ in. long, the other 5½



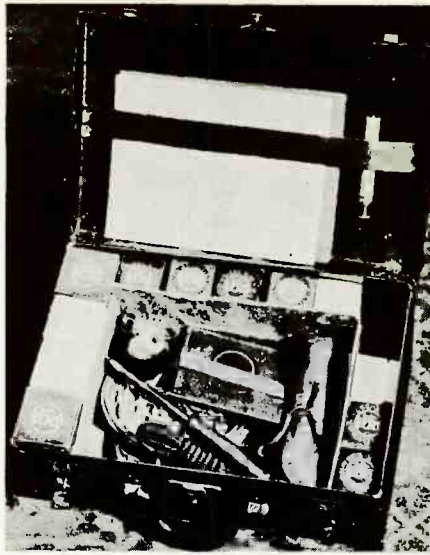
in. by 12½ in. The partitions are held to each other and to the case with heavy, gummed paper strips. Tubes usually carried include 2-'45s, 2-'80s, 1-'24, 1-'51, 1-'35, 1-Pentode, 3-'27s, 2-'71As and a '26.

Small tools are carried in a roll made of khaki canvas procured at an awning store. The material listed here was used: Khaki canvas, 18 in. by 24 in., 8 ft. of 1 in. wide khaki binding ribbon and 1 ft. of ½ in. khaki binding ribbon. The canvas was cut to the size indicated in the accompanying drawing and 1 in. ribbon sewed all around the edge to strengthen and prevent fraying. Next,



flaps marked B-1 and B-2 were folded toward the center to cover the tools and tape sewed over the exposed outside edge of the fold.

This work being completed, a length of 1 in. ribbon was sewed down the length of the roll, inside the flaps, temporary



stitches being used. Tools were placed in the proper position under this ribbon and permanent stitches made between them, to preserve the proper spacing. A 1-ft. length of ribbon, secured by stitches at its center to a spot centered on the outside of the end flap, provides a satisfactory fastening cord to hold the case when rolled for carrying.

The tool roll, when filled with the following tools weighs about 3 lb.:

- 1—small all-metal hammer (5 and 10)
- 1—pair 6-in. long-nosed pliers
- 1—pair 6-in. diagonal cutters
- 1—pair 6-in. combination pliers
- 1—4-in. adjustable wrench (Crescent)
- 3—small, flat magneto wrenches
- 1—large pocket knife
- 1—8-in. three-cornered file
- 1—8-in. flat file
- 3—socket wrenches (Sprintite)
- 1—long bladed screw driver
- 1—short bladed screw driver
- 1—setscrew screw driver
- 1—center punch
- 1—¼-in. star drill
- 1—8-in. hack saw blade

Larger tools and supplies which do not lend themselves to placement under the retaining strip in the roll, are carried loosely in the open compartment:

- Soldering iron and "nail-it" knob holder
- 24-in. length of rosin-core solder
- Small can of soldering paste
- 10 ft. "push-back" insulated wire
- 2 lb. ball-peen hammer
- Heavy screw driver
- Fountain pen flashlight
- Pocket size volt-ammeter
- Small can "3-in-1" oil
- Sheet of medium sand paper
- 2 ft. square of cheesecloth
- 1 headphone and cord
- Friction tape
- Rubber tape
- "Lucky Strike" tin of staples, white-head tacks, fixed condensers, resistors, screws, nuts, etc.
- "Velvet" tobacco tin of pilot lights and cartridge fuses.

An analyzer is carried externally, installation equipment placed in the bag only when such work is scheduled, thus avoiding overcrowding when covering service calls.

Umbrella Aerials

By J. Richard Kearns

Umbrella-type antennas are easy to erect—if you know how. Considerable time can be saved, where such installations are

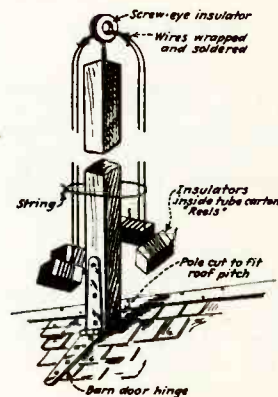
required, if the following shortcuts are used.

A screw-type of stand off insulator should be used at the top of the pole. This permits the use of two wires instead of the usual four, wires of the required length intended to serve as both antenna and guy leads being threaded through the screw-eye and bound on each side with wire, then well soldered to prevent them from slipping through.

A barn door hinge may be screwed securely to the bottom of the pole, permitting it to be fastened to the roof while lying down and raised later by means of the guys. The hinge should extend at least 8 inches on both the peak and the pole. The base of the pole is cut at an angle corresponding with the pitch of the roof.

Insulators should be fastened to the ends of the guy-antenna wires, stuffed into tube boxes and the boxes used as "reels" to shorten the leads so that they hang nearly to the bottom of the pole. This is accomplished by wrapping the wire around the tube boxes as shown in the drawing. The four wires are securely held close to the pole with a piece of string before raising in order to keep them from swinging out and tangling.

When the pole is raised one guy wire at



a time may be secured, those which pull against the hinge naturally being fastened in place first.

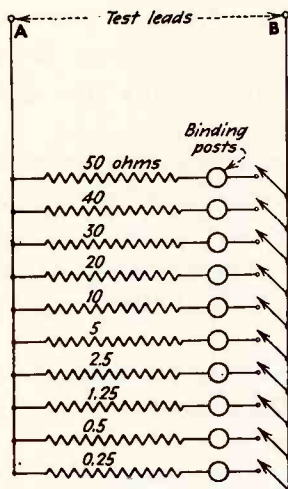
A Handy Resistance Box

By William Bittner

In servicing a set with a blown resistor the first step necessary after locating the defective unit is to determine the proper value so that the set will operate at its maximum efficiency when the repair is made. There are times when this must be done by test, as circuit diagrams cannot always be obtained, and a box full of resistances connected as shown will come in handy.

In order to use it the rule for resistances in series and in parallel must be known. The total resistance of parallel units is equal to one-half the sum of the resistances in the circuit. The total resistance in a series circuit is the sum of the resistances in that circuit.

In figure 3, for example, if switches to the 50 and 40 ohm units are closed the available resistance across A and B is 45



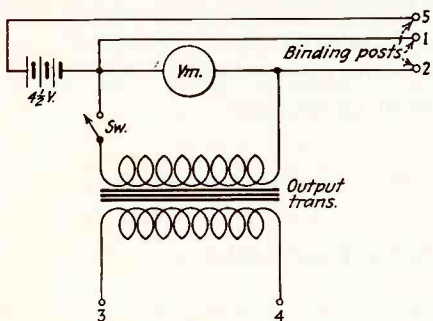
ohms. If the switch to the 40 ohm resistance is closed and test leads connected to the binding post associated with the 50 ohm resistance and B the value will be 90 ohms.

Resistances to be used in such a box for general shop work should be capable of carrying 160 mils or dissipating about 2 watts.

Ohmmeter, Output Meter, Voltmeter

By J. E. Fox

I have constructed a combination output meter, ohmmeter and voltmeter at a cost of \$5.20. This instrument is surprisingly accurate and is built into a card index file



case measuring 4x5x6 in. The following parts are used:

- 0-4 1/2 volt Readrite a.c.-d.c. meter.....\$1.50
- 5 binding posts25
- Output transformer 1.50
- Toggle switch35
- 4 1/2 volt C-battery..... .45
- Card index file box..... 1.15

\$5.20

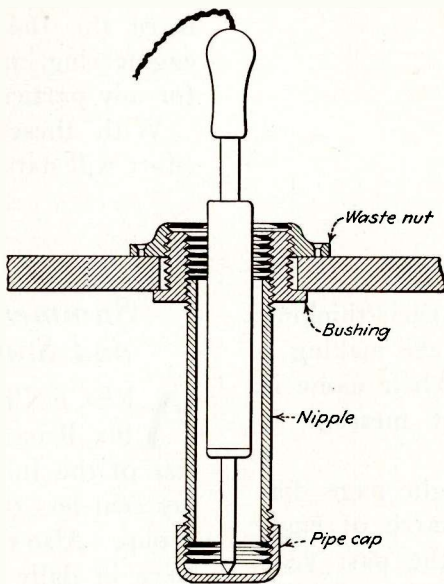
To use this instrument as an output meter on sets with dynamic speakers, test prods are connected to terminals 1 and 2 and to the voice-coil lugs of the speaker with the switch open. For use with sets not having an output transformer the prods

are connected to posts 3 and 4 and speaker terminals with the switch closed. For use as an ohmmeter, connect prods to binding posts 2 and 5 with the switch open. The meter is calibrated in the usual fashion for use as an ohmmeter. Access to the voltmeter is obtained through posts 1 and 2.

Three Cheap Bench Tools

By E. M. Carnes

A handy bench holder for the hot soldering iron can be easily made with the following pipe fittings, obtainable at any hardware store:

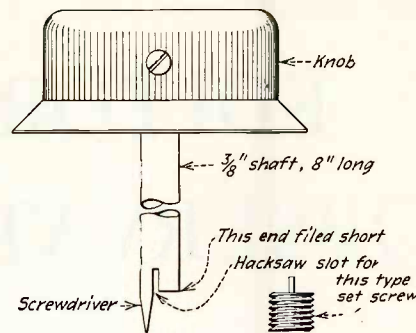


- 1 Waste nut
- 1 Bushing
- 1 Nipple
- 1 Pipe cap

Slots are hack-sawed into the nipple to provide ventilation. The holder lessens fire hazard, keeps the iron safely out of the way and keeps solder off the floor.

A butcher saw punch, also available at any hardware store, is handy in punching holes through chassis steel for transformer mountings and is much quicker than drilling.

A hand-operated rivet machine is useful in fastening shields and replacement parts to the metal chassis.



Where movable plates are fastened to tuning condenser shafts to permit alignment, as in the Crosley model 30, this device is particularly useful as an ordinary screwdriver will not reach through the shield holes. The plates are in a convenient position for adjustment in this particular model when the set is tuned to 600 kc.

Emergency Voltage Regulator

By Floyd Jackson

Trouble is at times experienced with line voltage regulators in both a.c. and d.c. sets. Such regulators are usually wire-wound resistors connected in the power transformer primary to produce a voltage drop.

In some receivers it is difficult to get at the resistor, should it be necessary to make replacement, and in such cases it is often simpler to connect a standard Edison base in place of the wire-wound unit and to screw a suitable incandescent lamp into this socket to provide the drop. When making such a repair place all tubes in sockets with the exception of one. Insert an analyzer plug in this socket and put the tube in the analyzer. Now try bulbs of various wattages in the Edison base until the proper filament voltage is applied to the tube filaments as indicated by the analyzer.

It should be remembered that the higher the wattage of the lamp employed the lower its resistance and hence the higher the voltages applied to the power transformer primary and to the tube filaments.

For Stubborn Setscrews

By B. S. Bland

A handy tool for removing frozen setscrews can be made from a 3/8-in. steel shaft about 8 inches long and a suitable tuning knob. A slot is hacksawed into the business end of the shaft as shown, one prong is filed off and the other is shaped into a blade. The slot takes lug-head setscrews.

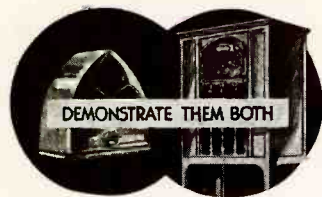
How Do YOU Do It?

Radio Retailing will pay \$3 or more for acceptable letters from experienced servicemen describing original methods, or equipment of interest to other shops.

Schematic diagrams and drawings need not be artistic, merely clear—we redraw them anyway.

Mail "kinks" to W. MacDonald, Technical Editor, Radio Retailing, 10th Ave. at 36th St., New York City.

EDITORIAL OBSERVATIONS



"Let the customer decide."

You're in the Home Entertainment Business Now

RADIO dealers who still confine their thinking to the merchandising of sets are making a profound mistake. To such, and their name is legion, this straight-from-the-heart message is directed.

Glance at the accompanying, right page diagram. Observe how the rapid march of engineering development has within the past year opened wide a new vista of selling opportunities for the radio *products* dealer who's on to his job.

Is your knowledge up-to-the minute on these allied lines? Have you been experimenting with their sales possibilities? And have you read up on their technical aspects?

Because of its importance we repeat the roll call: Sound amplification in all its phases—multiple-speakers, public and private address service, its possibilities for home and business use; automobile radio; automatic feed, radio-phonograph combinations; records; television—parts and kits; home talking movies—and films; de luxe and specially engineered, remote control, home-installations.

Is this pure theory or can the average radio man get his hooks into one or more of these things, with profit?

The answer not only is that it's being done but that those who have not yet seen the light *must* enlarge their viewpoint, must think in terms of radio in *all* its ramifications and home and business applications, if they would continue to grow

and to prosper according to their just deserts.

So much for preachments. To the seriously-minded dealer will at once come the thought: How may I go into action?

For one thing, review your past issues of *Radio Retailing*. In each number since last September will be found articles on one or more of the preceding subjects. These articles are practical and instructive. They cover all of these new "home entertainment" items.

Second, discuss these matters with your distributor. Insist upon his sympathetic and wholehearted assistance.

Start with a sample "attention-getter"—either a televisior assembly or a home projector with synchronized sound. Insist that your technician learn the fundamentals of sound amplification engineering, and that he know what is required for any particular job and where to get it.

With these preliminary steps taken, selling effort will naturally follow.

Summer Listeners and Some're Prospects

ARECENT survey, conducted for the Columbia Broadcasting System, revealed that the size of the July-August radio audience is but 7.4 per cent less than that of the September-October group. Also that 67.3 per cent of all sets owned were in daily operation during July as against 72.7 per cent in operation during October.

If summertime listener-interest holds up in this amazing fashion it follows that "prospect" interest, during the vacation months, also is far greater than most of us imagine.

The Winning Formula

SIXTY per cent of any manufacturer's plan for promoting home talking movies should be devoted to making available for the dealer and jobber an easily obtainable supply of 16 mm. films and synchronized records. So far the makers of home projection devices have not given sufficient energy to this important subject.

Concrete plans for the distribution of films and records in the remoter trade centers must be worked out—and at rental prices within the reach of the average prosperous citizen. The manufacturer who first formulates a workable policy of this nature will outdistance competition.

104 New Programs

THE ever-changing panorama of radio, with new programs, new artists and new methods of presentation constantly coming into view, is vividly illustrated by the figures for the first quarter of 1931.

Radio Retailing's survey of the features to be heard over the two national chains reveals that 53 sponsored programs and 51 major sustaining presentations have been inaugurated since the first of the year.

These "premieres" embrace every type of radio entertainment and bring to the studios talent from every branch of the show and musical world.

Who Will Sell Auto-Radios?

MANUFACTURERS have found it possible to greatly reduce the price of auto-radio sets. These are now within the means of millions of car owners and are ready for quantity exploitation. But one thing stumps the makers of this equipment; holds back distribution. Who, they want to know, is best equipped to do a real selling job—the radio dealer, the new car agency or the battery service station?

This is the picture as we see it: In general, none of these groups is in a position to do the whole job at this time. Few radio dealers have facilities to install any great number of sets, car agencies can sell receivers for installation only in new automobiles and battery service stations are not experienced in the sale of \$100 to \$150 entertainment units. All three groups, perhaps, can well work together to good advantage. Let

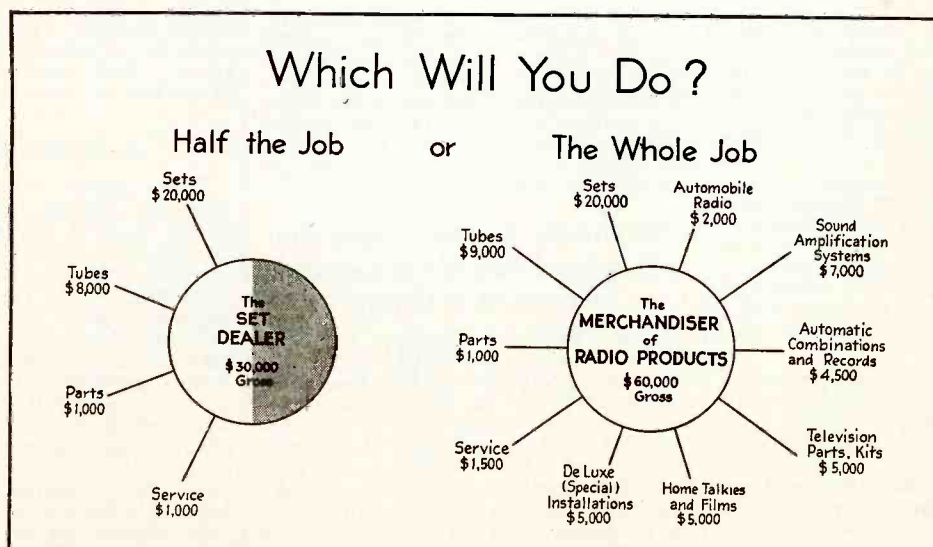
radio dealers who know how to merchandise entertainment equipment do the heavy selling. Let centrally located battery stations, ignition specialists, make flat-rate installations for these dealers. And let auto agencies, that have easy access to new car buyers, secure this necessary business for the radio dealer on a straight commission basis.

This plan will serve to put more auto-radios in use, the one thing a new product needs most to give it impetus. Later, when the ball starts rolling, specialty selling organizations will probably grow out of the successful operations in these three groups—and manufacturers will do well to utilize such auto-radio outlets when they develop.

Worthy of Careful Consideration

THE following items of major importance have been scheduled for primary consideration by the board of directors of the Radio Wholesalers Association. These matters call for the keenest of fundamental thinking on the part of every jobber in the country, as well as by those who are meeting at Chicago this month:

- 1 Fair manufacturer and wholesaler contracts.
- 2 Losses resulting from unwise promotional effort.
- 3 Losses resulting from unjustified cooperative advertising allowances.
- 4 Losses resulting from needless additional discounts demanded by large buyers.
- 5 Inventory and obsolescence losses.
- 6 Credit losses due to weak collection methods.
- 7 Continued efforts to estimate known values in merchandising supplementary lines.
- 8 Standard practices in handling unnecessary service and adjustments for the wholesaler.
- 9 Constructive efforts to determine the actual market for radio and to enlarge this market.
- 10 Exchange of information on operating expenses.



Supreme Court Declares

June, 1931

Other News of the Month

GENERAL ELECTRIC COMPANY LOSES TUBE CASE TO DE FOREST—BASIC DECISION SHOULD STIMULATE ACTIVITIES OF INDEPENDENTS

REVERSING the decision of the Third Circuit Court of Appeals, the Supreme Court of the United States, May 25, held the celebrated and basic Langmuir radio tube patent to be invalid. This ruling, by Associate Justice Stone, was handed down in the case of the De Forest Radio Company against the General Electric Company. The latter controls the Langmuir patent and claimed that it has been infringed by the former. The De Forest interests contended that unless the patent was set aside, General Electric would have a virtual monopoly of the radio tube in common use.

In the opinion of well-informed radio men the Langmuir patent has been the most important item in the patent pool of the Radio Corporation of America, General Electric Company, Westinghouse Electric and Manufacturing Company, American Telephone and Telegraph Company and General Motors Corporation.

The case originated when the District Court of Delaware held the Langmuir patent invalid because of anticipation and want of invention, prior invention and prior use. The Third Circuit Court of Appeals first sustained the District Court and later reversed it. De Forest took the case to the Supreme Court on a granted petition for a writ of certiorari. The decision concludes 19 years of legal controversy.

Substance of the Contention

The substance of the contention of GE was that through an invention Irving Langmuir perfected the high vacuum tube by freeing it from gas and thus preventing the ionization or electrifying of the gas which theretofore had interfered with the successful operation of the low vacuum tube. It further was claimed that this patent covered new principles of the art.

By its decision the Supreme Court holds, in effect, that a new invention was not made and that what Langmuir did was to perfect that which already had been discovered.

Substantiating this argument Justice Stone wrote: "That the production of the high vacuum tube was no more than the application of the skill of the art to the problem in hand is apparent when it is realized that the invention involved only the application of this knowledge to the common forms or low vacuum discharge devices such as the Fleming and De Forest tubes. Once known that gas ionization in the tube caused a regularity of current which did not occur in a high vacuum, it did not need the genius of the inventor to recognize and act upon the truth that a better tube for amplifying could be made by taking out the gas."

As one result of this decision, according to the Radio Protective Association, those independent tube companies, licensed under this patent to the Radio Corporation of America, should now be in a position to recover the royalties they have paid and also to claim triple damages for all injuries suffered as a result of this license agreement.

Statements From the Vitaly Interested

In releases to *Radio Retailing* the principals and independent tube manufacturers make the following comment on this celebrated case—the first radio patent to be adjudicated by the Supreme Court of the United States:

"No Relation to Other Patents"

From O. S. Schairer, Radio Corporation of America—"The decision of the Supreme Court deals only with the Langmuir patent, and has no relation to the other patents under which the Radio Corporation has rights and has granted licenses. It does not affect the right of the Radio Corporation of America to manufacture and sell radio tubes."

"Definitely Circumscribes the Licensing Field of the General Electric-RCA Group"

From William J. Barkley, DeForest Radio Company—"Both within the radio industry proper and in the industrial applications of the vacuum tube, this decision definitely circumscribes the licensing field of the General Electric-RCA group, since, if held valid, the high vacuum patent would have covered every radio tube in use today and would have created a virtual monopoly of all the industries which depend for their

A Significant Decision An Editorial

The verdict of the United States Supreme Court in the Langmuir patent case not only is of tremendous importance to manufacturers of radio sets and tubes but will open the way for a wide variety of applications of high-vacuum tubes in connection with the development, by "independents," of sound pictures, power transmission, telephony, musical instruments, aviation, surgery, and metallurgy.

Many attorneys have declared that the Langmuir patent was the only isurmountable one controlling tube manufacture.

operation on vacuum tubes. This is so because the vacuum tube has become the heart and soul of the electrical arts.

"This decision represents the second major victory on the part of the DeForest Company over the General Electric-Radio Corporation group within a period of one month. It is perhaps the most momentous patent decision in recent years that has come up in the radio and related industries."

"Should Lead to Industry Patent Pooling Agreement"

From B. J. Grigsby, Majestic—"In handing down this decision the Supreme Court has again denied that any group or combination can control the air or any great industry. There still remains to be heard the government dissolution suit and the triple damage suit of Grigsby-Grunow, under the Clayton Act.

"A tremendous victory for the independents. Senator Dill's recent comment that what the radio industry needs is a pooling of patents, like that of the automobile industry, was timely indeed. Such action is the only solution of the industry's grave patent problem. This decision should lead to such cooperative action."

"A Sound Decision"

From George Lewis, Arcturus Radio Tube Co.—"It has always been the belief of the Arcturus company that the degree of vacuum in a tube was not a patentable invention. We are glad to see this opinion vindicated by the recent decision of the Supreme Court.

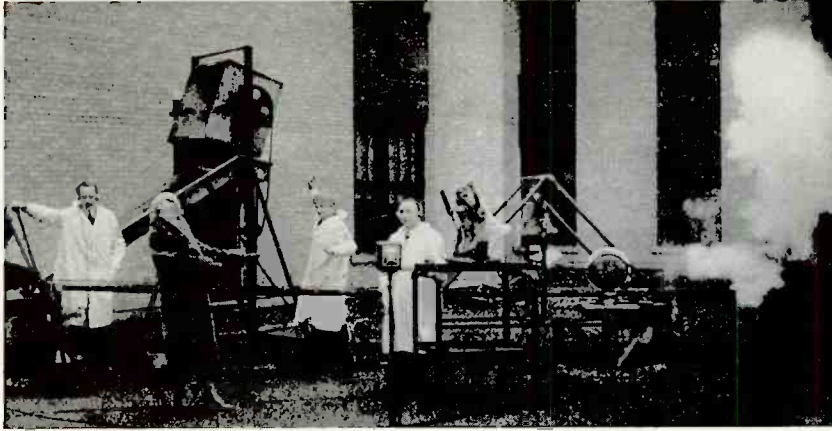
"This patent, if declared valid, would have encroached upon, and seriously limited, further inventions by a vast army of physicists, scientists and engineers upon whose efforts much of the future progress of the industry depends.

"The decision is sound in that it precludes the probability of any one concern being in a position to control not only the radio industry but all industries in general who depend greatly upon electronic devices."

Langmuir Patent Invalid

Condensed for Busy Readers

New York, N. Y.



Look Out for the Train!

This doesn't look much like the roaring locomotive that radio listeners hear on the Empire Builders every Monday night, but here's the bell and whistle anyway—the real things, right off Great Northern engines. The big dump chute in the background reproduces anything from an earthquake to an automobile smash-up, depending upon what is loaded into it. Signal lights and headphones let the crew know when to pull the train into the station or cause a wreck at the cross roads.

Hygrade and Sylvania Announce Consolidation

Consolidation plans have been approved by the board of directors of Sylvania Products Company, and the Nilco Lamp Works, Inc., both of Emporium, Pa., and the Hygrade Lamp Company, Salem, Mass.

Combined sales of these companies amounted to approximately \$9,000,000 for the year 1930. The Emporium and Salem units each manufacture incandescent lamp bulbs and tubes. The Sylvania Products Company and Nilco Lamp Works, Inc., together do about the same volume of business as the Hygrade Lamp Company. Both Sylvania and Hygrade brands are widely accepted in the fields in which they operate.

The combined companies will constitute, it is claimed, the largest so-called "independent" manufacturer of electric lamp bulbs and radio tubes in the United States.

This consolidation will be effected without resorting to additional public financing. No new management or financial interests are involved and those officers who have been in charge of the separate businesses will continue with the new combination. No change is contemplated in manufacturing facilities or locations.

Gulbransen Co. Has New Officers

At a special meeting of the board of directors of the Gulbransen Company, May 7, A. S. Wells, well known in the radio field since the inception of the industry, was elected president. A. G. Gulbransen, the retiring president, was elected chairman of the board of directors.

Other officers elected were G. M. Gardner and George McDermott, vice-presidents; Frank Dillbahr, treasurer

and Edward B. Healy, secretary.

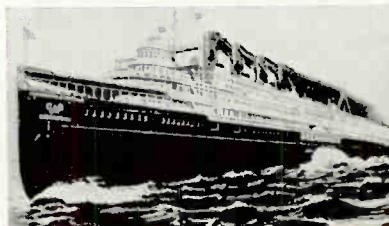
Mr. Wells is a man of unusually wide experience in sales, engineering and executive capacities. Prior to his connection with radio, he was actively engaged in the farm lighting business.

Mr. Gardner's broad knowledge in sales and executive work in radio makes him specially well qualified for his present position.

Ken-Rad Acquires Acrometer Sales Rights

Richard Smiley, general sales manager of the Ken-Rad Corporation, Owensboro, Ky., announces that his concern has secured, through arrangement with the Acrometer Company, Everett, Wash., the exclusive national distributing rights for the "Acrometer" and its copyrighted merchandising plan.

The Acrometer, meaning "accurate recording meter," was developed on the Pacific Coast by Kinney Brothers & Sipprell, one of the Northwest's leading music stores.



Is There No End to This Craft?

And to Philco's annual cruises as well. For the latter, more power to 'em. This year 500 doughty distributors will sail the Great Lakes—Buffalo to Chicago. Some convention trip, and "Gee what a boat!"

NATIONAL RADIO WEEK SEPT. 21-27

National Radio Week for 1931 has definitely been set for September 21 to 27. This date coincides with that of the Radio World's Fair in New York.

It will be recalled that last year thirty-five cities observed the event, thirty-two chain programs were dedicated to radio, and over two hundred broadcasting stations carried announcements celebrating radio's 10th birthday. The executive offices already have started on plans for making National Radio Week a more elaborate event this year than ever before.

Plans Completed for Consumer Shows in New York and Chicago This Fall

After the trade show in June the major industry events are the two national expositions, the Eighth Annual Radio World's Fair and Electrical Exposition, New York City, and the Tenth Annual Chicago Radio Show and Electrical Exposition.

The exact dates of these two major public shows, annually attracting a half million visitors, have just been announced by U. J. Herrmann and G. Clayton Irwin, Jr., co-directors.

Leases signed the last of May with Madison Square Garden, in New York, and the Coliseum, in Chicago, set the dates of the New York Exposition as September 21 to 26, inclusive, and the Chicago Radio Show, October 19 to 25, inclusive.

Eighteen A K Distributors Win P M of M Degree

Hats in the air to the following P M's of M—"Past Masters in the Art and Science of Merchandising." This impressive title was bestowed by A. Atwater Kent, in the form of personally signed certificates, as a "signal and lasting reward for outstanding sales and sales promotion achievement for the 1930-31 sales year."

Frank M. Brown Co., Portland, Me.; Albany Distributing Co., Albany; Edmond, Inc., Poughkeepsie, N. Y.; True & Blanchard Co., Newport, Vt.; New Haven Electric Co., New Haven, Conn.; Elliott Radio Sales Corp., Binghamton, N. Y.; C. L. Hartmann Corp., Rochester, N. Y.; E. J. Edmond Co., White Plains, N. Y.; E. B. Latham & Co., New York City; E. A. Wildermuth, Brooklyn; Jersey State Distributors, Newark; Central Electric Co., Green Bay, Wisc.; Briggs-Hagenlocher, Inc., Erie, Pa.; Louis Buehn Co., Philadelphia; L. T. Ganster Co., Reading; Dixie Radio Co., Greensboro, N. C.; Radio Specialty Co., New Orleans; and A. A. Schneiderhahn Co., Sioux City, Ia.

CINETROPE MAKES TALKING MOVIES

Frankenberg Heads National Sound Films, an Affiliated Company

Word comes from Indianapolis of the organization of two affiliated concerns for the manufacture and sale of home projectors and films. These companies, the Cinetrop Corporation, and the National Sound Films, Inc., will specialize in "sound with picture" presentations for residence use. Burton F. Swain is president of the former and Julius Frankenberg, Chicago, of the latter outfit.

Purposes of the Cinetrop Corporation, as given in the articles of incorporation, are for the manufacture, purchase, sale and distribution of devices usable in taking or projecting motion pictures and the recording of sound.

Purposes of the film company were given for the "manufacture, produce, process and distribution for wholesale and retail equipment usable in the making and projecting of motion pictures and the recording and reproducing of sound."

The apparatus which will be marketed shortly by Cinetrop has been in actual finished state and field use for a number of months.



"Let the customer decide"

RMA DEFINES STAND AT BRIARCLIFF

The board of directors of the Radio Manufacturers Association, meeting at Briarcliff Lodge, N. Y., June 8, went on record as endorsing the position taken by Merlin Aylesworth, president of the National Broadcasting Company, in his recent address at Princeton, N. J., with reference to the relation of broadcasting publicity to advertising in newspapers. Mr. Aylesworth, in his speech, met squarely the contentions of the American Newspaper Publishers Association regarding radio advertising competition.

The board also approved a report from President Metcalf regarding the resolution transmitted recently to the Federal Radio Commission, urging the Commission to grant applications of broadcast stations for maximum power of 50,000 watts. This action, declared Mr. Metcalf, would improve radio reception, eliminate much radio interference, and promote the sale of receiving sets.

A resolution was also passed thanking the Columbia Broadcasting System and O. H. Caldwell, editor of *Radio Retailing*, for their cooperation in a recent broadcast wherein Mr. Caldwell urged the public to secure the maximum of radio entertainment—to which it is entitled—by replacing obsolete sets with new receivers having the utmost in tonal quality.

THAT history is but the extended shadows of outstanding personalities is again confirmed in the recent activities of well known radio executives. For example:

Clement Studebaker, III, grandson of Clement Studebaker, famous wagon builder, and son of Clement Studebaker, Jr., of the Studebaker Corporation, has entered the radio field with an ambition to make the family name as favorably known in radio as in other industries.

Mr. Studebaker has recently completed comprehensive designing, production and sales arrangements which include laboratories in Chicago, manufacturing facilities in South Bend, Ind., and a sales organization, national in its scope. He formerly was vice-president of the Colin B. Kennedy Corporation.

Last November he organized the Studebaker Laboratories of Chicago, taking with him as his chief engineer, R. H. Caldwell, former chief engineer of Kennedy. Mr. Caldwell's broad and successful experience in radio and allied fields is well known to the industry.

To insure adequate manufacturing facilities, Mr. Studebaker and Mr. Caldwell next formed the Patent Development Company, located at South Bend, Ind. This company will manufacture all products designed and developed by the Studebaker Laboratories.

Finally, sole selling rights for all products of the laboratories have been granted to the DePree Sales Company, headed by Jim DePree, former general sales manager of Colin B. Kennedy. Mr. DePree is well known to the radio sales world and has had 25 years' experience as sales manager for prominent manufacturers in both radio and other lines. J. Howard Haley will be associated with Mr. DePree as vice president and secretary of the sales company.

The first products of the Studebaker Laboratories—a new Pentode tube set and a superheterodyne set will be displayed at the Palmer House during the Radio Show. These products are already in production and Mr. DePree announces that substantial advance orders have already been booked.



Ross D. Stragusa

AMONG the first of "old line" radio manufacturers to announce an active participation in television we note the well-known names of Ross D. Stragusa

With the Radio History Makers

Coming, a Studebaker Set—Freed and Siragusa Playing with Television—Schultz Sales Manager for Kennedy



Caldwell



Studebaker



DePree

and Arthur Freed. The former, president of Transformer Corporation of America, Chicago, has established a research laboratory to delve into the specific problems of visualization. Mr. Siragusa does not believe that television will effect the 1931 market but—"when television becomes a permanent and vital force *Clarion* will be there."



Arthur Freed

Arthur Freed, who as vice-president and sales manager of the Freed - Eisemann Radio Corporation, was responsible for much of that company's success, now heads the Freed Television and Radio Corporation, which will bring the name of Freed Eisemann to the field of television.

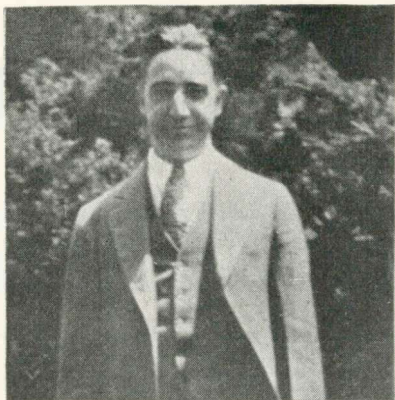
As might be expected Colin B. Kennedy Corporation, South Bend, Inc., was due for a new sales manager. H. C. Schultz was nominated for this position the first of May.

Mr. Schultz has a national acquaintance in the radio field due to his sales efforts for nationally known houses during the past twenty years. Old timers of phonograph days will remember "Heinie" Schultz in connection with the activities of Columbia and Sonora.



H. C. Schultz

RCA, in its recent annual financial report, had this to say regarding the status of television: "While television has been demonstrated repeatedly on a laboratory basis, further research and development must precede the manufacture and sale to the public of television sets. Although progress made in 1930 has brought television definitely nearer to commercial application, RCA will not attempt to market such equipment this year."



Too Modest

Although H. I. McConnell is Clarion distributor in Philadelphia he refuses to blow his own horn so we can't show him in golf togs dragging home a few trophies. Mr. McConnell is vice-president of the Roberts Auto & Radio Supply Co.

Silver-Marshall Will Sell Direct to Dealers

As a result of months of serious consideration and contact with radio dealers all over the country, Silver-Marshall, on June 1, put into effect a new direct, factory-to-dealer policy.

"There were many reasons for this sharp change from the conventional plan of jobber distribution, but one stands out prominently as pointing to the absolute economic necessity of such a system—the fact that the smaller dealer must sell more receivers at a greater profit to stay in business," states McMurdo Silver, president.

"In eliminating fifty-three distributors Silver-Marshall is conserving 25 per cent plus the cost of traveling representatives and is making it possible for the retailers to sell pentode vario-mu superheterodynes at list prices below competition, and yet make as much profit as though he sold a higher priced receiver," concludes Mr. Silver.

Stromberg Sales Representatives Meet at Factory

Sales representatives of the Stromberg-Carlson Telephone Manufacturing Company held their sales conference at the home office in Rochester.

The meeting opened with an address by Mr. McCanne, president, following which there were talks on merchandising by George A. Scoville and Benjamin Gross.

At the afternoon session the merchandising discussion led by Harry A. Beach; the latter part of the meeting being devoted to the technical side of radio, with Ray H. Manson presiding.

That evening the group went to the broadcasting studio to hear the Rochester Civic Orchestra broadcast the Stromberg-Carlson Hour.

The following day was given over to advertising and sales promotion subjects.

Arcturus Opens Western Office

Arcturus Radio Tube Company, Newark, N. J., announces the opening of a western division branch located at 1855 Industrial Street, Los Angeles. This office will be in the charge of L. P. Naylor, formerly sales manager for Arcturus.

DETECTOR LISTENS IN on JOBBER Doings



Ludwig Hommel & Co. of Pittsburgh have been appointed exclusive distributors for Atwater Kent in the territory formerly served by the Esenbe Co., Pittsburgh, and the Gee Electric Co., Wheeling, W. Va.

Canton Hardware, of Canton and Cleveland, Ohio, has tied in with United American Bosch, to cover the northern Ohio territory.

Leo J. Meyberg Co., San Francisco, has taken on a refrigeration line with the addition of the Norge products.

Arrangements have just been completed by Colonial for the following manufacturer representation: H. W. Menges, 1530 Olive St., St. Louis, and Harry Fox, Radio West Coast Co., Ltd., San Francisco.

L. W. Sturdevant has been appointed Pacific Coast manager of the Brunswick Radio Distributing Company, San Francisco. H. A. Rehmkne, for several years associated with Sherman Clay & Company, will assist him.

Eugene Farny welcomes National Accessories, Omaha, Neb., into the happy family of Lyric distributors. Of course National will sell the new Mohawk electric refrigerator also.

Now that the Western Michigan Music Co. is distributing RCA-Victor to the entire state of Michigan, the old name isn't exactly appropriate, so the company will be known as the State Distributors, Inc., with offices in Detroit as well as at the old location at Grand Rapids.

William W. Parsons has moved his sales manager's desk from the Sioux City branch of A. A. Schneiderhahn to the Des Moines office.

Formerly general district manager of the metropolitan New York area for Triad, Robert H. Hershman has joined Fiske Factors, Inc., New York, which company is both exclusive distributor and representative for Triad.

An independent jobber will now cover the New York territory for Grigsby-Grinow, as a result of the appointment of the Musical Products Distributing Co., of New York City, as exclusive representative in this section.

Art Reeder has been made manager of the radio department of B. F. Schlesinger & Sons, Oakland, Calif., succeeding Ted Holman, who is now associated with the Wurlitzer Company as manager of its radio department.

Griffens-Spares, Ltd., London, England, is handling the Capehart line of automatic record changing phonographs throughout the British Isles. This organization maintains a field force of twenty-six men.

Arthur A. Trostler, for the past two years sales manager for Brunswick, and prior to that vice-president in charge of sales with Freed-Eisemann, is now with Fada as special sales representative, covering the country from coast to coast.

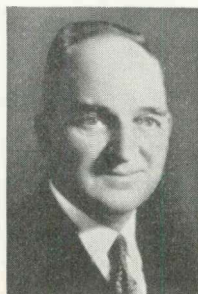
Wakem and Whipple, Inc., Chicago, exclusive distributors of Clarion sets, Acremeter testers and Ken-Rad tubes, report a very substantial increase in their business during the past four weeks. Acremeters have been placed with dealers in Freeport, Rockford, Aurora, North Chicago, Kankakee, Cicero and Chicago.

Fortune Favors These Four

C. C. Stephens

Won the RCA Radiotron first prize for a hot sales plan—\$500 and a trip across America. With Midland Radio Corp., Buffalo, N. Y.

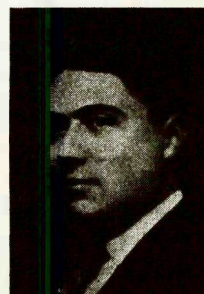
(right)



Joseph Freed

Recently elected to the presidency of the Perryman Electric Company. For many years of Freed-Eisemann fame, more recently with Warner Bros.

(right)



Jack Helsper

Now Director of Sales for CeCo, Providence. Will travel a great deal, but not during show weeks. Great things are predicted for Jack.

(left)

"Nick" Carter

Just appointed chairman of the Radio Industries Committee of the Chicago World's Fair. A founder of RMA and president of the Carter Radio Company.

(left)



Home Entertainment

Apex and Gloritone Receivers

THREE U. S. Apex and two Gloritone models have been brought to the show by the U. S. Radio and Television Co., Marion, Ind. The Apex models use both the Pentode and variable-mu tubes and have automatic volume control and full vision dial.

Apex Model 10B is a 10-tube receiver with two Pentodes, three variable mu's, four 27's and an 80. The cabinet is a lowboy with doors. \$99.50.

Apex Models 8A and 8B are 8-tube types: the former a mid-gest listing at \$67.50, complete; the latter, an open face lowboy, \$79.95, complete.

Gloritone Models 26B and 26P take the same tube equipment, namely, three 24's, one Pentode and an 80. 26B, the lowboy, is \$59.50 and 26P, the midgest is \$49.95, complete.—*Radio Retailing*, June, 1931.



Apex 8B

Lyric Sets

AN ALL-superheterodyne line of five models, employing the Pentode and variable-mu tubes in each of the five chassis, can be seen in the Lyric booth, (All American Mohawk Corp., N. Tonawanda, N. Y.)

Model S-6 midgest has six tubes and lists at \$49.50, complete.

Model S-7, slightly larger, has seven tubes and is priced at \$69.50, complete.

Model S-8, a full-sized console, 39 in. high, is designed after the Heppel white period and lists at \$99.50, complete.

Model S-9, the same as Model S-8, comes in two models—one with and one without doors.

The most unusual set in the line is the radio-piano combination made to meet the demands of small homes and apartments. The radio chassis is mounted in the lower right side of the bottom panel and the speaker in the lower left side, with the control panel in the upper right corner of the top panel. This student Wurlitzer piano combination comes in red, blue, green and gold with keys to match. It is 41 in. high by 40½ in. long.—*Radio Retailing*, June, 1931.

Howard Model 40

FEATURED in the Howard booth is Model 40 superheterodyne using two Pentodes in push-pull, together with three variable-mu's, two 27's, and a 280; eight tubes in all. It is housed in a semi-lowboy cabinet of attractive design, standing 39½ in. high. The price on this set is \$119.50, complete.—*Radio Retailing*, June, 1931.

Frost-Minton Sets

HIDDEN behind a "set of books" on world travel, you may find a radio set if you have one of the new Frost-Minton receivers onto which a "false" book panel can be attached by those who wish to conceal their set in a bookcase. The panel is linen covered and embossed, and when the radio is in use, it drops on a hinge. \$3 extra.

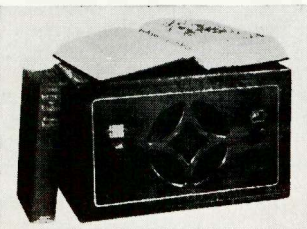
The radio comes in two models:—FM-4, which takes two 24's, a 45 and an 80, listing at \$29.50 complete, and the FM-5, which has an extra 24 tube and lists at \$36.50. The cabinets are metal.

Frost-Minton Co., 12 E. 41st Street, New York City, also offers an attractive occasional table of walnut, or natural wood for refinishing in colors, to enclose the set. \$15.50.

Dealers who have calls for sets as prizes for golf tournaments, boat races, etc., can obtain either model with a silver plate on the front for engraving. \$2 extra.—*Radio Retailing*, June, 1931.

Bosch Models 5A and 5B

NO HIGHER than the average novel, and occupying no greater space than the same novel laid down open, just about



American Bosch 5A

describes the compactness of the new "Personal" radio, Model 5A, now in production by the United American Bosch Corp., Springfield, Mass. This new receiver is oblong-shaped, measures 14½ in. long and 8½ in. high. It is made of solid mahogany with decorated border inlays. The list price, complete with five tubes, is \$43.50.

Model 5B, has the same chassis, but is housed in an end table or smoking stand type of table. The price is \$53.50, complete.

Model 5-C is a 5-tube t.r.f. set, using two variable mu's, a 24, a Pentode, and a 280.

The consoles of this line are Models 20-J, 20-K and 20-L, incorporating the new Pentode superhet chassis. It has two Pentodes, three variable mu's, two 27's, and an 80. List prices are 20-J, open-face console \$89.50 complete; Model 20-K, openface lowboy, \$99.50 complete; and Model 20-L, a highboy with sliding doors, \$139.50 complete.—*Radio Retailing*, June, 1931.

A brief description of what the set manufacturers are showing at the Trade Show this year, together with details of other merchandise just brought out for the 1932 market



G-M "Winslow"

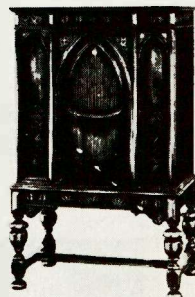
General Motors Receivers

A MOST unusual line of custom built, "double purpose" models may be seen this year in the booth of the General Motors Corp., Dayton, Ohio.

Two separate lines with three different circuits—7-, 8- and 10-tube superhets—are offered with prices ranging from \$69.50 to \$350, complete. In the 7- and 8-tube chassis the Pentode is used, with the variable-mu incorporated in all three circuits. Tone control is continued with a local-distance switch and automatic volume control in the 8- and 10-tube sets.

The standard line includes: Little General midgest, 7 tubes, \$69.50; Valere, 8 tubes, lowboy, \$99.50; Cosmopolitan, 10 tubes, small sliding door to shield the instrument panel from view if desired, \$129.50; Imperial, ten tubes, Stuart period cabinet, \$149.50; and a Queen Anne automatic combination, 10-tube chassis plays 10 records either 10 or 12 in. size by means of an automatic changer. \$250, complete.

In the custom built furniture line, all embracing period design, are:



G-M "Abbey"

Standish, early American period, end table or occasional table type, antique wax finish, self-contained aerial, 7 tubes, \$95.

Tudor, also of the end table type, 17th century English, solid oak, finished to give effect of mellowed age, 7 tubes, \$95.

Warwick, fashioned to resemble an early English occasional

table, antique mahogany finish, built-in aerial, \$95.

Cromwell, resembles an occasional table and has drawer in the top, 10 tubes, \$160.

Abbey, antique mahogany finish, sliding door to cover dials, 10 tubes, \$165.

Queen Anne Commode, cabriole legs, tambour effect on the sliding door, 10 tubes, \$175.

Louis XV console, drawer at the top, especially suitable for use in the foyer with lamp on top, 10 tubes, \$185.

Winslow, reminiscent of the early American period, resembling a chest of drawers, with three real drawers, the two lower drawers concealing the control panel, 10 tubes, \$225.

Louis XV automatic combination plays 10 records automatically, resembles chest of drawers, 10 tubes, \$350, all "complete."—*Radio Retailing*, June, 1931.



Brunswick 17

Brunswick Superhets

A WIDE variety of models, ranging from a midgest (the first Brunswick has made), to an automatic Panatrope with radio make up the display of the Brunswick Radio Corp., 116 W. 42nd St., New York City.

Model 11, the mantel type receiver, in a walnut cabinet, uses three 24's, two variable-mu's, a Pentode and an 80. Featured in this set, as well as the others, is a tone control, and uni-selector, full-range volume control. \$79.50, complete.

Model 12, a miniature highboy console with the same chassis, is \$99.50, complete, and Model 16, a lowboy, is \$119.50. The latter has 12-in. speaker.

Model 17 is a larger set, taking three 24's, two variable-mu's, two Pentodes, a 27 automatic volume control tube and an 80. The cabinet is a lowboy. \$149.50, complete.

Model 24 a highboy with the same chassis is \$169.50, complete.

Model 33 is a lowboy combination radio - with Panatrope with the seven tube chassis and 12 in. dynamic speaker, listing at \$169.50, complete.

Model 42 is the automatic Panatrope-with radio, playing 20 10-in. records without attention. It also plays the 12 in. records manually. The price complete with tubes and a complement of 20 records, is \$265.—*Radio Retailing*, June, 1931.

Merchandise for 1932

Sets about which information was not ready to catch this issue will be covered in July. For additional photos, please turn to the 8-page pictorial section starting on page 45



Philco 9-tube lowboy

Philco Sets

THREE new balanced superhet chassis, an armchair model, an improved oversized electro-dynamic speaker and cabinets designed by Norman Bel Geddes, are some of the high spots of the line the Philadelphia Storage Battery Co., Philadelphia, Pa., is showing.

The chassis are designed for 11 tubes (highboy, lowboy and automatic combination models); 9 tube, (highboy, lowboy and baby grand models) and 7 tubes, (radio phonograph combination, highboy and baby grand models.)

In addition to these sets, two d.c. models are offered, (a baby grand and a lowboy) an 8-tube battery operated receiver, and the Philco-Transitone radio for autos and motorboats.

The 11 tube chassis takes four 24's, four 27's, two 45's and an 80; the 9 tube, four 24's, two 27's, two 45's and an 80 and the 7 tube, three 24's, two 27's, a Pentode and an 80.

The Lazyboy arm chair model has the 7 tube chassis and is about the size and height of an end table. The controls are on the top of the set, recessed, so that top can be used as a table.—*Radio Retailing*, June, 1931.

Fada Model 45

THE first model of the new Fada line is an open-face lowboy console, Model 45, using two Pentodes in push-pull amplification, together with two 235's, a 224, two 227's, and a 280. The speaker has a 10½ in. cone. This set is 33 in. high by 23 in. wide. \$112.50 complete.

Further information is not available from F. A. D. Andrea, Inc., Long Island City, N. Y., as we go to press. Full details on the complete line will appear in the July issue.—*Radio Retailing*, June, 1931.

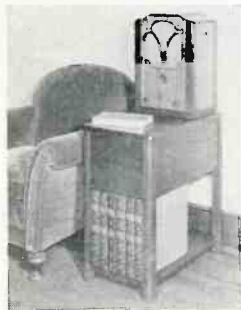
GE Model 212

ALONG with its recent models, the General Electric Co., Bridgeport, Conn., has on exhibition a new midget set, Model T-12, using two 224's, a Pentode, and a 280. The cabinet is Gothic in design, and stands 15½ in. high by 10½ in. wide.—*Radio Retailing*, June, 1931.

Three Gulbransen Sets

THE new line of Gulbransen receivers consists of one 10-tube and two 7-tube superhets. The leader of the line is the 10-tube variable-mu, pentode receiver incorporating four variable mu's and two Pentodes in push-pull. It is known as Model 235, and the walnut cabinet is 44 in. high by 24 in. wide. \$97.50.

The 7-tube superheterodyne may be had in either a lowboy cabinet or a mantel style housing. The tube equipment includes two variable mu's, a Pentode and two 24's. The mantel set, known as Model 130, is \$58. The console, Model 135, stands 40 in. high and lists at \$68.—*Radio Retailing*, June, 1931.



Westinghouse Columette

Westinghouse Columette

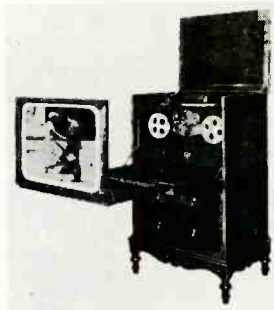
FOLLOWING close on the heels of the "Columaire," comes the "Columette," a mantel type 8-tube super, just announced by the Westinghouse Electric & Mfg. Co., Mansfield, Ohio. It is 18½ in. high and less than 1 ft. square. The exponential tube is used for r.f. and i.f. amplification.

The Columette is finished in two-tone American walnut. An end-table phonograph unit, as shown, may also be obtained to convert it into a radio-phonograph.—*Radio Retailing*, June, 1931.

Capehart Automatic Phonographs

TWO new automatic phonographs, playing both 10 and 12 in. records, intermixed or in sequence, playing one side and then immediately reversing it, are being shown by the Capehart Corp., Fort Wayne, Ind. Model 400 in a Chinese Chippendale cabinet, is 44 in. high by 44½ in. wide.

Model 401 Chippendale in design, is the same size, and has a radio set, also.—*Radio Retailing*, June, 1931.



Talkiola

THE secretary-style cabinet used for the home talkie equipment of the Talkiola Corp., 1600 Broadway, New York City, can be used as a desk when open. The top panel falls on hinges. The screen is built-in and unfolds as shown in the illustration. There is space below for storing the films, etc.

A projector to take care of the increased speed of talking pictures and at the same time eliminate noise, has been developed. The "Talkiola" has a radio matched to the gramophone pick-up, which is especially designed for it. The switch-over from radio to gramophone is made by a turn of the dial. The shifting of a lever changes the speed of the turntable from 78 to 33½, which is the speed used in talking pictures. The radio, or a 33½ or 78 r.p.m. record can be run in connection with a silent picture.

This company has a library of interesting and entertaining talking pictures. The Talkiola is priced at \$495.—*Radio Retailing*, June, 1931.

Stromberg Superhets

MODEL 19 superheterodyne of the Stromberg-Carlson Telephone Mfg. Co., Rochester, N. Y., is an open front mahogany set 42 in. high by 25 in. wide. The list price is \$195, complete.

Model 20 comes in a taller cabinet with doors, standing 48½ in. high by 26½ in. wide. \$225, complete.

The chassis in these two models takes four 235's, two 227's, two 245's and a 280. Each is equipped with an automatic clarifier, for better tone on weak stations, operating automatically with the volume control.—*Radio Retailing*, June, 1931.

French "Tudor"

IN ADDITION to the Tudette, I Devon and Tudor combinations, previously described in this section, Jesse French & Sons Piano Co., Newcastle, Ind., had on display a Tudor console, listing at \$89.50, using the same chassis as the Devon set, namely, two 51's, one Pentode, a 227, two 244's and a 280.—*Radio Retailing*, June, 1931.

Stewart-Warner Series

THE Silver Jubilee line has been brought out by the Stewart-Warner Corp., Diversey Blvd., Chicago, in celebration of its 25 years in business. There are 9 sets in the line and the recently perfected lowwave converter. This converter can be obtained as a unit or as a built-in feature in four of the new models. \$23.95.

The apartment model, a 6-tube super mantel set, in an American walnut cabinet, is \$52.95, complete. This set, as well as the balance of the line, is equipped with variable-mu and Pentode tubes, tone control, electro-dynamic speaker and television terminals.

The four consoles (two styles with different chassis) list at \$65.75, and \$71.75, respectively. With converter, \$22 extra.

The console de luxe, embellished with hand carving, is \$82.75 complete. With converter, \$104.75.

An innovation of the Stewart-Warner line is a portable in a walnut cabinet, end-table height and fitted with four noiseless wheels, which can be moved about and plugged in anywhere. \$67.75. With converter, \$90.75.—*Radio Retailing*, June, 1931.



RCA-Victor portable phonograph

RCA-Victor Line

DOUBLE-PURPOSE furniture has found its way into the line of the RCA-Victor line this year with the introduction of a writing desk model, using 9 tubes in a super het circuit. It takes a 24, three 27's, two Pentodes, two 35's and an 80. Standard equipment includes tone control, remote tuning and automatic volume control. \$139.50, complete. Available also in a highboy model at the same price.

Model RE-16 Electrola, a radio-phonograph combination with 9-tube set is \$125.

RE-26 with nine tubes in an Italian Renaissance cabinet has the automatic Electrola. The turntable may be operated at 33 1/3 r.p.m. or 78 r.p.m., and plays ten records continuously. \$215, complete.

The Automatic Electrola de luxe takes 12 tubes (four 24's, two 27's, four 45's and two 80's). It has remote tuning, automatic volume control, home recording, two dynamic speakers, two amplifiers and automatic record changer. \$900, complete.

RAE 68 an automatic combination at \$495; an 8-tube console at \$89.50, the Radiolette midget at \$37.50 and a portable phonograph complete the line.—*Radio Retailing*, June, 1931.

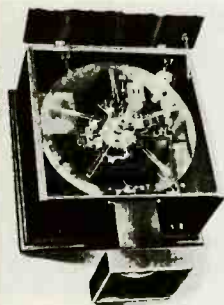


Hollywood CineVoice

A SYNCHRONIZED turntable which can be attached to any 16 mm. or 35 mm. projector for home talkies can be obtained from the Hollywood Film Enterprises, Inc., 6060 Sunset Blvd., Hollywood, Calif. It plays all types of sound-on-disc pictures. Phonograph records can be played to run with the silent movies. The radio set can be used as the speaker, or a special

portable amplifier, listing at \$80, can be obtained if desired.

The "CineVoice" is a positive drive machine and comes complete with a carrying-case and 30 ft. cord. The prices run from \$105 to \$134, according to the projector it is to be used with. If desired to attach to more than one make of projector, extra adaptors can be furnished. —*Radio Retailing*, June, 1931.



Skeleton view of the scanning apparatus

Shortwave Receiver and Televisor Kits

TWO kits, designed to operate together as a complete television receiving unit are being displayed by Shortwave & Television Corp., 70 Brookline Ave., Boston, Mass. The first, comprising a 7 tube receiver employing two tuned screen-grid r.f. stages, screen-grid detector and three resistance coupled audio, is designed for use with plug-in coils permitting reception from 15 to 520 meters. Price, knockdown, \$95.10 list. Or completely wired in cabinet, \$110. Coils are \$4.88 extra.

The televisor kit, including a neon lamp, 60 line scanning ribbon and other essentials such as an automatic synchronizing amplifier, lists at \$80, or \$100 completely wired in a cabinet. Both kits are completely a.c. operated, no batteries being required.

A switching arrangement in the shortwave receiver permits either power or regenerative detection to be used. The first is essential for television reception while regeneration is useful in receiving regular shortwave sound broadcasts.—*Radio Retailing*, June, 1931.

Hammond Alarm Clock

THE "Logan" model electric clock of the Hammond Clock Co., 2915 N. Western Ave., Chicago, is now available with alarm mechanism carrying a price of \$7.77.—*Radio Retailing*, June, 1931.

Leutz "Cub"

A MIDGET companion of the "Seven Seas" receiver made by C. R. Leutz, Inc., Altoona, Pa., is the "Cub," a triple screen grid clock style set in either a.c. or d.c. models. It comes in a modernistic cabinet.—*Radio Retailing*, June, 1931.

Zenith Line

BOTH the Zenette and Zenith lines are being continued this year by the Zenith Radio Corp., 3620 Iron St., Chicago.

The lowest priced Zenette is a t.r.f. circuit designed to use the new multi-mu and Pentode tubes. It is housed in a table model cabinet. \$49.95 complete.

Model AH Zenette, also a table model, but an 8-tube super, has automatic volume control and uses the multi-mu and Pentode tubes. \$79.50, complete.

A larger chassis, employing the same tubes, is available in two console cabinets; one a low-boy, \$99.80 and the other a highboy, \$125.

Magnavision dial is a feature of these sets. This invention employs a logging strip several inches longer than is commonly used. This strip is magnified to about 2½ times its original size—the effect being that of a 17 in. strip.

Model 91 Zenith set is a 10-tube super employing multi-mu, Pentode and screen grid tubes housed in a medium sized console. It has automatic volume control and lists at \$155, complete.

Model 92 is a highboy, same chassis, and includes Zenith automatic tuning control. \$195, complete.

Model 103 in the higher priced merchandise class, is a 14-tube superheterodyne with automatic tuning, volume control, and voltage regulator. \$290, complete.—*Radio Retailing*, June, 1931.



Vest-Pocket Test Probe

EVERY test for continuity can be performed with the vest-pocket model testing device of the Electrical Mfg. Corp., 10 High St., Boston, Mass. It readily detects defective or shorted by-pass condensers (whether open in either lead).

Tests for filament or heater voltage at tube sockets may be made and the user may check for the presence of plate and screen grid voltages at the socket, and open or shorted resistors are quickly and easily located.

It is made of polished red and black dielectric material, and measures ½ in. x 7 in. The price to the dealer is \$4.50 net.—*Radio Retailing*, June, 1931.

Crosley Superhets

FIVE chassis and eleven cabinets make up this year's exhibit of the Crosley Radio Corp., Cincinnati, Ohio. Three of the chassis are entirely new.

The new five-tube chassis is available in three models: "Show Boy," a small mantel set, \$49.50; the "Sonnesteer," a 35½ in. console, \$59.50; and the Oracle, a new pier clock model, 61 in. high, \$99.50. These sets employ a Pentode, two variable-mu's, a 24 and an 80.

The 7-tube superhet (3—24s, 2 variable-mu's, 1 Pentode and an 80) is also shown in three models. The "Super Buddy Boy," a mantel type, \$65; the "Songster," a console, \$79.50, and the "Musical," a 36 in. console with a large auditorium type speaker, \$94.50.

Two consoles, one a combination, have the 10-tube superhet chassis. The "Minstrel" is a highboy with doors, listing at \$129.50. The Troubadour is the combination, priced at \$199.50. This chassis utilizes two Pentodes in push-pull, two variable-mu's, two 224's, three 27's and an 80. All prices are "complete."—*Radio Retailing*, June, 1931.



Crosley Super-Buddy Boy

Midget Coin-Operated Automatic Phonograph

ALLEN-HOUGH Carryola Co., Milwaukee, Wis., is attracting attention with its midget, coin-operated automatic phonograph made to retail, fully equipped, for \$195. It is substantially the same as its older brother, the "Cabaret."

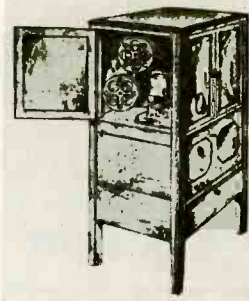
It is enclosed in a fabrikkold-covered cabinet which is scuff proof and stain proof, and can be placed on the counter or table within arm's reach of the customer. The Samson reproducing amplifier consists of two stages of push-pull amplification, with a 7-in. Utah dynamic speaker.

The record changing mechanism is the same type introduced a year ago, and it plays and changes ten 10-in. records automatically. The visible operating mechanism is finished in tarnish-free spotless silver. This Carryola midget is equipped with a multiple coin slot which permits the insertion of from one to six nickels simultaneously.—*Radio Retailing*, June, 1931.

B-L Power Units

TO FURNISH low voltage d.c. from the a.c. lighting line, the B-L Electric Mfg. Co., St. Louis, Mo., has placed on the market what it calls "Rectopacs" and "Filterpacs". They use dry plate rectifiers to rectify the current from a step down transformer, and there are no moving parts no noise or radio interference when operating.

The rectifying unit may be purchased separately.—*Radio Retailing*, June, 1931.



Peko Home Talkies

PEKO, INC., 2400 W. Madison St., Chicago, Ill., has brought out a combination 16 mm. talkie, phonograph and radio unit. The speaker can be removed from the back of the cabinet, and placed behind the screen with extra extension cord for the proper sound effect. A feature of this model is increased illumination. The radio is an 8-tube superhet. It will list at about \$250.

Other models to follow will be of the portable type, listing at approximately \$175, less speaker and radio.—*Radio Retailing*, June, 1931.

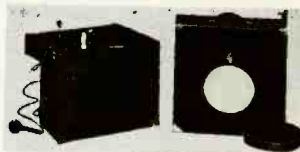
Pilot Line

PILOT is introducing a 7-tube superhet in the midget and console models, two full size console models with 10-tube superhet chassis, and table and console models of the "Universal" all-wave set.

The 7-tube chassis has automatic volume control, full vision dial, tone control, phonograph connection, and uses the variable-mu and Pentode tubes.

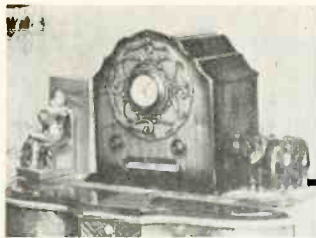
The 10-tube set incorporates a new automatic volume control developed by Kenneth Harkness. It is available in two console cabinets, one with an open front and the other with hinged doors.

The "Universal" combination shortwave and broadcast wave set, comes in either a table model with a separate loud speaker, or a console with built-in dynamic. The prices are: midget superhet, \$59.50; console, \$74.50; open-face console superhet, \$116; de luxe console superhet, \$139; table model "Universal," \$99.50; console "Universal," \$149. Pilot Radio & Tube Corp., Lawrence, Mass.—*Radio Retailing*, June, 1931.



Portable Sound Amplifying System

A PORTABLE sound amplifying system has been developed by Electrad, Inc., 175 Varick St., N. Y. C. It consists of two units mounted in carrying cases, covered with leatherette. The speaker is mounted in one case, and the amplifier, microphone input panel, phonograph turntable and pick-up in the other. Everything is entirely self-contained, and the cases measure 20x20x10 in. This model is useful for public address work when an easily portable unit is desired for both music and voice amplification. \$375, less tubes.—*Radio Retailing*, June, 1931.



Erla 22-P

Erla Midgets

AN EXTREMELY compact and attractive cabinet houses the new Pentode midget of the Electrical Research Laboratories, Inc., 2500 Cottage Grove Ave., Chicago, Ill. The four tubes used in this set are one variable-mu, a 24, a Pentode and an 80.

It is available in two a.c. models: 21-C which lists at \$29.75 complete, and 22-P at \$39.50, the latter having a self-starting, front set, Telechron clock.

These sets are also available for d.c., using two 236's, and two 238's.—*Radio Retailing*, June, 1931.

ABC Washer

A NEW washer in the lower-price field, with centrifugal water-remover and designed to retail at \$129.50, has just been added to the line of Altorfer Bros. Co., Peoria, Ill. It is known as No. 77 Spinner, and rinses, blues, starches and dries.—*Radio Retailing*, June, 1931.



Wellston Products

UNDER the trade name "Gold Test," the Wellston Radio Corp., St. Louis, Mo., tell us they are ready to supply dealers with aerials and a full line of replacement parts.

The aerial is of the filtered type, and is made of Durez. The back is solid. Although small enough to fit into the palm of the hand, it has a capacity equivalent to 54 ft. of aerial wire, strung 50 ft. high in the air, it is claimed. It can be placed anywhere—inside or on the back of the radio cabinet.—*Radio Retailing*, June, 1931.

Jensen Permanent Magnet Speaker

A PERMANENT magnet speaker, which according to the announcement, is electro-dynamic in tone quality and has the ability to handle great volume is being shown for the first time by the Jensen Radio Mfg. Co., 6601 S. Larimee Ave., Chicago. It is called PM-1 and as there is no field coil, there is no need of a separate current supply to energize the magnetic field.

They are available with transformer equipment for use with any of the regular amplifier tubes or with the new Pentodes.

A new line of electro-dynamics is also on exhibition with 6, 7, 9 and 12 in. cone structures.—*Radio Retailing*, June, 1931.

Sentinel Line

FIVE new Sentinel receivers, all within the \$100 range, can be seen at the booth of the United Air Cleaner Corp., 9705 Cottage Grove Ave., Chicago.

Model 109 console is an 8-tube superhet with two 24's, two variable-mu's, two Pentodes, a 27 and an 80. In localities where there is considerable fluctuation of the line voltage, the receiver is protected by a fuse plug which can be replaced with a regulator tube for maintaining constant the voltage applied to the primary of the power transformer. The cabinet is in the Louis XVI period and the price is \$99.50, complete.

Model 106 Portrola comes in a cabinet of the smoking stand style, much like the last year's model. \$89.50 complete with three 24's, two 27's, two 45s and an 80.

Model 108A console is a 7-tube superhet with variable-mu and pentode tubes. The matched walnut cabinet is modern in design and lists at \$79.50 complete. This chassis in a table model is \$69.50 complete.

Model 111 midget is a 4-tube receiver utilizing one 24, one variable mu, a Pentode and an 80. \$37.50, complete.—*Radio Retailing*, June, 1931.



Corbett Cabinet for Midgets

FOLLOWING the bookcase style of cabinet so popular now, the cabinet which the Corbett Cabinet Mfg. Co., St. Marys, Pa., is making, will take the ordinary midget chassis, as the set compartment is 12½ in. deep by 15½ in. high by 9½ in. deep. It can also be had for wider chassis. The cabinet itself stands about 46 in. high. The dealer's net price is \$5.50, f.o.b. factory.—*Radio Retailing*, June, 1931.

Cardinal 66 and 72

CARDINAL RADIO MFG. CO., 2812 S. Main St., Los Angeles, Calif., is now making a 6-tube superhet in both the straight radio and radio-phonograph combination models, each using 2-224s, a 551, a 227, a Pentode and a 280. Both are housed in midget style cabinets, the straight radio listing at \$59.50 complete, and the combination at \$99.50 complete.—*Radio Retailing*, June, 1931.

Photolytic Cells

TWO additional photolytic cells of different sizes to be utilized in equipment where space is limited are being produced by the Arcturus Radio Tube Co., Newark, N. J. They are designated as Type P23 and P27, the former being of the tubular type cell, 2½ in. high by 1½ in. wide. The P 27 is 1½ in. high by 1½ in. wide.—*Radio Retailing*, June, 1931.

Jewell "Tube Seller"



COMplete in every detail for rapid and accurate tube testing, Pattern 214 tube seller, which has just been brought out by the Jewell Elec. Instrument Co., 1650 Walnut St., Chicago, Ill., is made to place on the counter so that the customer can read and understand the test. A special adapter for testing the Pentode is available. The tube reading is indicated simultaneously on the small meter in front of the dealer and on the larger demonstration

meter facing the customer. A comparison of this value with the figures on the chart indicates the condition of the tube.

Dealers who have the Model 209 tube checker can obtain the demonstration meter separately, and attach it.

The prices, for 60 cycle operation, are: Pattern 214, as shown, \$93.75 net; Pattern 219 (the 209 tube checker and separate demonstration meter), \$51.38 net; demonstration meter only, \$28.88.—*Radio Retailing*, June, 1931.

Hamilton-Lloyd Midget

FULL-VISION dial, tone control, and electro-dynamic speaker are standard equipment with the new Hamilton-Lloyd mantel set manufactured by the Plaza Music Co., 10 West 20th St., New York City. This set uses a Pentode tube, together with four 224's and a 280. The intended retail price is \$69.50 complete.

The chassis, which measures 13½ in. wide x 9½ in. deep x 8 in. high, as well as the 7-in. speaker, may be purchased separately.—*Radio Retailing*, June, 1931.



Audiola Line

AT THE Audiola booth there is an exhibition a midget and two lowboys, all of which have the variable mu and Pentode tubes.

Model 610 Junior is a 6-tube affair, listing at \$48 less tubes, and Model 810 Junior, is an 8-tube superhet, priced at \$57.

Model 612, a lowboy, is priced at \$60 with the 6-tube chassis, and at \$69.50 with the 8-tube superheterodyne. The cabinet is made of butt walnut, and stands 39½ in. high.

Model 814 is an 8-tube full size superhet receiver with a 12-in. dynamic speaker. It stands 42½ in. high by 24½ in. wide, and lists at \$76.50.

Each of these sets has tone control, full vision dial, and dynamic speaker. Audiola Radio Co., 430 So. Green St., Chicago.—*Radio Retailing*, June, 1931.

National "Thrill Box"

THE revised model of the National Company, Inc., Malden, Mass., is showing for

the first time, now incorporates 245 tubes in push-pull and employs variable-mu's. The tuning range has been extended to cover from 9 to 750 meters, a new set of coils having been designed to cover from 550 to 750.—*Radio Retailing*, June, 1931.

Webster Amplifier Power Stage Panel

TO meet the demand for a powerful amplifier for sound distribution systems, which provides the advantages of larger units yet conserves space, Webster Electric Co., Racine, Wis., has developed the illustrated power stage panel. With a 56 watt output, this unit, model 6032A, is particularly suited to outdoor installations. An additional panel is furnished with condensers mounted thereon in 7 sections.

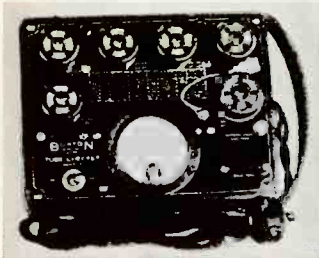
A microphone amplifier having a unique "fade-in" feature is also available. This unit is a battery operated two-stage microphone amplifier and mixing panel which will accommodate up to 3 double button broadcast type mikes. A special control permits the "fading-in" of music on voice.—*Radio Retailing*, June, 1931.



Pierce-Airo Sets

THE new Pierce-Airo "Pentode radio trio" consists of a Pentode superhet, a Pentode r.f. set for a.c., and one for d.c. Any of these units may be had in either cabinet or chassis form.

Some of the features of these sets, which carry the trade name "DeWald," are full vision dial, tone control, phonograph pick-up jack and antenna adjuster. They may be obtained from Pierce-Airo, Inc., who are now in their new headquarters at 510 Sixth Ave., New York City.—*Radio Retailing*, June, 1931.



Jr. Oscillator and Tube Checker

BURTON-ROGERS CO., 755 Boylston St., Boston, Mass., announces a new junior oscillator and a deadline tube checker, Model 3.

The junior oscillator has seven fixed broadcast frequencies, and 3 intermediate frequencies for superheterodyne alignment; with the vernier calibrated in one kilocycle steps from 170 to 183. It is completely shielded and equipped with a graduated variable output control. The dealer's net price, with output indicator, is \$37.50; less output indicator, \$27.50.

The deadline tube checker Model 3, small and compact, tests all tubes. There is a special circuit to show up noisy tubes. It checks short circuits between cathode and heater, as well as between other tube elements. Price to the dealer, \$27.60.—*Radio Retailing*, June, 1931.

Regent Midgets

HIGH Frequency Labs., 3900 N. Claremont Ave., Chicago, Ill., are making four midgets. Models 505 and 520 take 3-224's, a 245 and a 280, and list at \$49.95 and \$52.50 complete, the difference being in the ornamentation of the cabinet.

Models 840 and 841 are supers. The tube equipment calls for 3-224's, 2-227's, a 245 and a 280. \$79.50, complete.—*Radio Retailing*, June, 1931.

Rola Dynamic Speaker

DESIGNED to meet the exacting requirements of 1931 radio sets and home talkie outfits, the Rola Co., Cleveland, Ohio has put out a new unit, known as Model F. It is only 8 in. overall diameter.—*Radio Retailing*, June, 1931.

Gibson Refrigerators

UPON the introduction of electrical refrigeration, the Gibson Co., Greenville, Mich., was one of the first to manufacture cabinets built exclusively for the use of electric refrigerators. Gibson is now going into production on the complete units and offers three models priced at \$157.50, \$209 and \$280, f.o.b. factory.

The cabinets are of all steel construction; the food compartment is lined throughout with seamless porcelain; the hardware is duotone chrome, and they are fitted with heavy plated shelves.

The illustrated model is priced at \$209.—*Radio Retailing*, June, 1931.



Soldering Compound

MAYO LABORATORIES, 281 E. 137th St., New York, N. Y., has prepared a soldering compound in concentrated form which is ready to use when water is added. By dipping the soldering iron tip in this solution occasionally, the black formed by oxidation immediately disappears, and the iron presents the appearance of a newly tinned iron. It is valuable in soldering heavy or dirty metals such as power pack shells, chassis and nichrome wire. The dealer's net price is 50c. per can. For the serviceman's bag, it may be obtained in a tube at 15c.—*Radio Retailing*, June, 1931.



Utah Speaker

WHAT is said to be the smallest practicable dynamic speaker ever produced, permitting the construction of a radio set less than 12 in. high, is being made by the Utah Radio Products Co., 360 N. Michigan Ave., Chicago, Ill. This speaker is only 6 1/2 in. in outside diameter, and 3 in. deep. Certain new ideas in pot or housing construction and in voice coil arrangement, make possible high efficiency in spite of the small size.—*Radio Retailing*, June, 1931.

Janette Rotary Converters

TWO new rotary converters have been added to the line of the Janette Mfg. Co., 556 W. Monroe St., Chicago, Ill.

Type CA-25-F is available for 32-volt d.c. only. It develops 60 watts of 110 volt 60 cycle a.c., and its consumption is 4 amp. It is designed especially for the operation of a.c. midget sets on 32 volt farm lighting systems. \$49.50.

Type CA-18-F develops an output of 150 watts of 110 volts, 60 cycle a.c., and is available for operation of 32, 115 or 230 volts d.c. \$58.—*Radio Retailing*, June, 1931.

Ohmite Resistors

A RADIO resistor department has been installed by the Ohmite Mfg. Co., 636 N. Albany Ave., Chicago, for the manufacture of two types of units. They are carbon resistors in all resistance values having the trade name of "Carbohm", intended for use in dissipating one watt or less, and wire wound resistors up to 25,000 ohms, to be known as the "Wirohm Red Devils," capable of dissipating up to ten watts.—*Radio Retailing*, June, 1931.

Perryman 280M Tube

A MERCURY - VAPOR, full wave rectifier, with characteristics similar to the standard 280, has been developed by the Perryman Electric Co. Inc., Hudson Blvd., North Bergen, N. J. It is capable of delivering three times the available power of the standard 280. This is a special low voltage drop tube requiring special circuit for its use.—*Radio Retailing*, June, 1931.

Stylus for Home Recording Devices

A PERMO-POINT stylus for a home recording instrument, designed to use smooth aluminum discs and to make accurate and lasting recordings, has been developed by the Permo Products Corp., 3625 Montrose Ave., Chicago. The point is fashioned and polished to a definite radius making possible clean cut grooves.—*Radio Retailing*, June, 1931.

Cabinet for Echophone Midget

IF AN Echophone midget owner wants to transform his set into a console, he can obtain a cabinet from the Hamilton Mfg. Co., Two Rivers, Wis., which will do just this. No alterations are necessary and the radio can easily be removed



when desired. The illustration shows how the cabinet looks with the set installed. Price, \$12.50. A table, finished in walnut to match the set, is also available at \$5.50.—*Radio Retailing*, June, 1931.

Summer's Livest Lines (Continued from page 61)

Other dealers in Syracuse also participate. During 1930 thirty-four of these races were held between May and September. This year more will be put on.

These races are publicized through the newspapers, and the public, now familiar with the thrills that can be expected in outboard motor races, attends them in large numbers.

The hired promoter provides silver loving cups for the winners. These cups are purchased and the racing programs financed by the rental to the outboard dealers of the amplifying system which the promoter installs at the scene of each race to describe the events to the crowds watching them. The dealer may, at appropriate intervals, make advertising announcements over the amplifying system, and may make it known that the races being wit-

nessed at the time are sponsored by him.

The sponsoring of a day's racing program in this manner costs the dealer in the neighborhood of \$250, and, in Mr. Potter's opinion it is money well spent.

In the Potter Company's experience with outboards there is much to encourage other radio dealers who are contemplating this summer activity. For example, from 75 to 90 per cent of this business is cash. Furthermore, the average dealer rarely finds it necessary to carry more than two or three outboards in his stock at one time.

Service is practically nil, sales expense low, and the purchaser usually arranges for his own delivery. Advertising expense more than justifies itself. Altogether, he who rides the outboard popularity wave, if we are to judge by the Potter Company, rides high.



Look
for the shield
of quality



A \$37⁵⁰ Midget*

joins the
Graybar Radio Line

Give ear, dealers! There's a new voice in the Graybar radio line. It's the new Graybarette... a little wonder for it's size... just the thing for people looking for a "good little radio." It has a circuit of the tuned radio frequency type, a new dynamic speaker, a marvel of realistic tone reproduction... and pleasing appearance of the all-in-one type. Arrange for your supply now!

The Graybar radio family now has six members in six different price classes, ranging from the \$37.50 Graybarette up to the recording model at \$285.00. Each model is a leader in its group and the complete Graybar line gives both dealer and customer a wide variety of quality models from which to choose.

Graybar

*Complete with tubes.

OFFICES IN 76 PRINCIPAL CITIES.
EXECUTIVE OFFICES: GRAYBAR BLDG., N. Y.



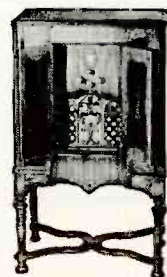
\$69.50—Super-Heterodyne Midget (Complete with tubes)



\$112.50—Tuned Radio Frequency Model (Less tubes)



\$142.50—Super-Heterodyne Model (Less tubes)



\$179.50—Tone Control Model (Less tubes)



\$285.00—Complete Recording Model (Less tubes)

from England and costs about \$15. Later, it is probable that crystals will be manufactured by our own tube companies, using the conventional 224 base. Should this come about, production will probably reduce the price considerably.

The audio compensating system employed consists of an output transformer, a small by-pass condenser and a resistor. The voice coil winding of the transformer is connected in the second detector plate circuit while the primary feeds into the audio amplifier. Vernier drive, essential in a sharply tuned circuit, is provided for the gang condenser unit by a double-acting dial which can be used with a 5-1 or 200-1 gear. The balancing midget has a 5-1 vernier. A low-range milliammeter is used in the second detector plate circuit as a visual tuning meter.

In Action

THE trade is not vitally concerned with the Stenode's theory, patents, politics. It is interested in the practical development of any circuit which may become important. For this reason *Radio Retailing's* reporters, sent to Hempstead to see the latest Stenode, refrained from delving into perplexing theory and spent an entire evening tuning the set, checking its sponsor's claims.

The Stenode's sponsor claims that it "introduces a new order of selectivity." It was possible for the writer to tune in WENR, Chicago (50,000 watts), on the channel 10 kc. away from WABC (5,000 watts) 10 miles distant and also to tune between these two stations to a point of complete silence without retarding the volume control. This was not possible with either of two standard, 9 tube superheterodynes known to be operating at full efficiency, in the same room. In several other instances where stations in adjoining channels appeared to abut on the standard receivers it was possible to find a quiet "no man's land" between them with the Stenode. It was noted that local stations invariably tuned completely out within 3 kc. each side of resonance.

It is claimed that the Stenode offers "heterodyne elimination." This was checked with local oscillators and also on broadcasts actually heterodyned. A standard super was tuned to a strong local signal. An oscillator was then tuned until a strong beat note was produced. Despite careful tuning it was not found possible to eliminate the heterodyne when using the standard super. The local oscillator was left untouched and the Stenode tuned to the same broadcast station with the crystal bridge circuit perfectly balanced as recommended for operation. The heterodyne was found to be present but by slightly unbalancing the bridge by detuning the condenser it was possible to completely remove it, retaining the desired station. This test was repeated at several points on the dial and in all cases both standard receivers failed to operate without serious heterodyne interference while the Stenode eliminated or greatly reduced it.



A typical Stenode, this a.c. receiver is one of several now being sold in England

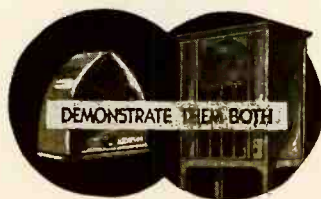
Badly heterodyned stations were next found on the standard receivers. Wherever it was impossible to receive such a station because of heterodyne interference the Stenode was tried. It was found that where such heterodynes were produced by two signals beating with each other it could be eliminated or greatly reduced, retaining one of the stations, by unbalancing the bridge. The receiver failed to cut out such interference where three or more stations were beating together; for example, as in the crowded shared channels (1,200 kc., etc.). When the frequency of the heterodyne was below 200 to 300 cycles the undesired heterodyne note could not be eliminated. It could do little with "burbles" below these frequencies.

It is claimed that the Stenode "reduces background and static." This was substantiated. Several distant stations were tuned in on the two standard receivers successively and then on the Stenode. A marked difference in noise level was noted.

"Perfect reproduction" is claimed. No instruments for measuring the output of the receiver were available but as near as could be determined by ear the Stenode performed satisfactorily. Operating into a Jensen dynamic mounted in a speaker cabinet resembling a console the set seemed to reproduce fully as well as standard sets, at both ends of the scale.

Except for the fact that it was extremely sharp, requiring rather tedious manipulation of the dials, the set was not difficult to operate, tuning-in exactly the same way as any other single-dial control receiver. Such sets could no doubt be shipped with the "balance" position indicated on the midget, it being necessary to detune this "squeal control" slightly only when necessary to reduce heterodyne interference.

Information concerning the probable licensees of the system is not available at this time. Sponsors of the device advise that names will be divulged later in the season and to the release of these we look forward with considerable interest.



"Let the customer decide"



AS OLD AS RADIO AS NEW AS TELEVISION

No other single organization offers as complete and diversified line of radio products as the DeForest Radio Company.

Today the DeForest name is to be found on—

- Receiving Tubes
- Transmitting Tubes
- Special Purpose Tubes
- Transmitters
- Carrier-Current Equipment
- Speech Amplifiers
- Centralized Receiving Systems
- Short-Wave Receivers
- Facsimile Apparatus
- Television Equipment from Home to Studio

DeForest does not rest on its laurels. Having contributed the

- Audion or practical radio tube
- Regenerative principle
- Oscillating tube circuit
- Audio amplifier
- Practical radio telephone
- Practical radio telegraph
- Broadcasting of entertainment
- Outstanding features of 1931 tubes

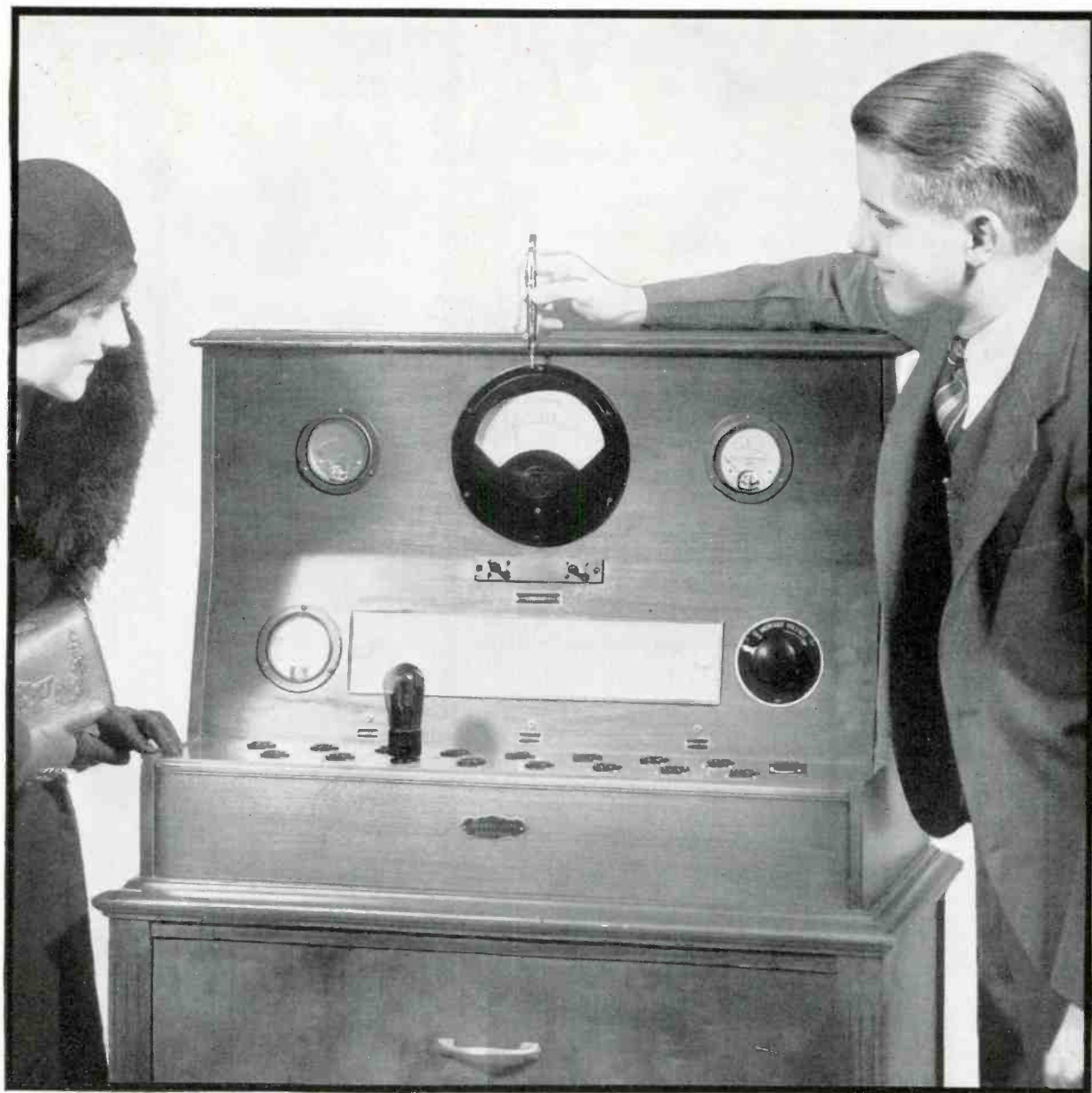
—the very foundations of our present radio industry, the DeForest organization looks ahead rather than behind in serving you.

See our unique DeForest exhibit, during R.M.A. Trade Show, by visiting Booths 92, 93, 96 and 97, facing main entrance, Hotel Stevens. Or if you prefer, write for our Silver Anniversary Souvenir.

DE FOREST
RADIO
CO
PASSAIC
NEW JERSEY



Ken · Rad



★ ★ ★ ★ *This is the Acremeter—
the tube merchandiser, the dramatic tube
tell-tale that sees all, tells all and *sells all*.*





ANNOUNCES THE

Acremeter



The first really successful plan to get the tube business . . .

- ★ Not an experiment—and not a theory—but a proved success . . .
- ★ Increases tube sales for dealers 200 to 1500 percent . . .
- ★ More than 400 Acremeters in use—backed by a sales plan that really sells tubes . . .
- ★ Positively the biggest merchandising development in the history of the tube business . . .

Acremeter is available only through Ken-Rad. See it at the R. M. A. Show—Ken-Rad Space No. 50 and 51, Hotel Stevens. If you can't get to the show, wire or write us for the full story. It's too big and too important to miss.

THE KEN-RAD CORPORATION, *Incorporated*, OWENSBORO, KENTUCKY
Licensed Radio Tubes and Incandescent Lamps

Ken·Rad *Fine Radio Tubes*



The MOST VALUES ever

LOOK at these *SENSATIONAL* FEATURES

Super-Heterodyne Circuit

New, powerful, keenly selective—a champion performer.

New Pentode Tubes

For maximum power amplification without distortion.

New Variable Mu Tubes

Eliminate local station interference or "cross talk."

Low Wave Converter

Permits reception of low-wave broadcasts down as low as 20 meters. Enables owners to bring in DIRECT day and night, stations in all parts of the globe—from Siberia, Russia and Italy, to Holland, France, England and South America; amateur broadcasts; police signals, etc. Opens up a new field of fascination and interest. No bothersome interchange of coils required. Sold as a separate unit, usable with most any A. C. set—also a built-in feature on five Stewart-Warner models.

Tone Control

Permits individual interpretation of even the lifelike tone for which Stewart-Warner has always been famous.

Television Terminals

Make set ready for Television equipment.

Full Vision Dial

Assures quick, accurate station finding.

Electro Dynamic Reproducer

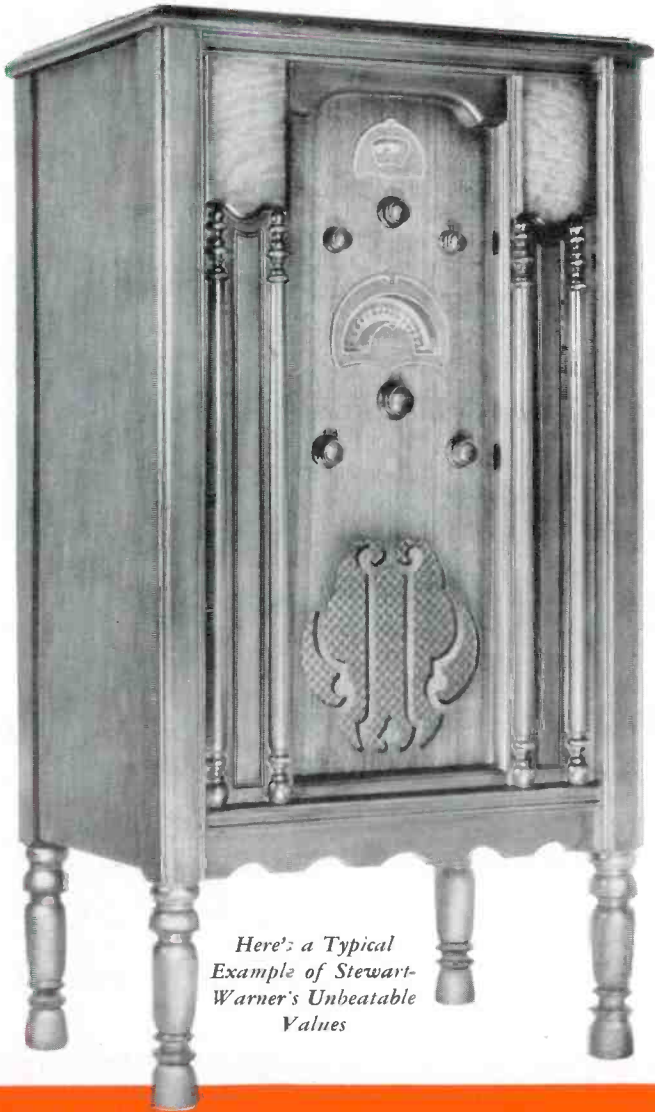
Affords maximum tonal range.

Walnut Cabinets

Of striking beauty in design, workmanship, finish.

Models for All Current

Made for 25 to 60 cycle A. C. Also for D. C. operation.



Here's a Typical
Example of Stewart-
Warner's Unbeatable
Values

Walnut Console—Super-Heterodyne Circuit—Pentode and Mu Tubes

This No. 1 Console, Super-Heterodyne Circuit, Variable Mu and Pentode Tubes, Tone Control, Electro Dynamic Reproducer, Television Terminals. Beautiful cabinet of selected walnut. Height 35 inches. Complete with tubes, only.

With built-in Low Wave Converter as shown \$87.75

\$65⁷⁵

STEWART-WARNER



SENSATIONAL offered in RADIO

Only Such Tremendous Production Facilities as possessed by Stewart-Warner could create such fine RADIO at prices so LOW!

Not until you have seen and heard the new Stewart-Warner "Silver Jubilee" Line, can you realize what high grade radio sets are today obtainable at sensationally low prices.

From the beginning, Stewart-Warner Radio has made money for dealers. Always it has stood for outstanding VALUES — for outstanding performance. Demand has increased steadily. But in this new line, all previous efforts have been completely over-shadowed.

Nine wonderful advanced models in Console, Portable and Apartment Types! Sets of distinctive beauty and artistry. Sets incorporating the very latest in chassis design and equipment—even to attachments for Television—even to Low-wave Converters which open up not only all North and South America but the entire world in a new and fascinating field of exploration! Sets built not just for today but anticipating needs far into the future. And think of it—a price range from \$104.75 all the

way down to \$52.95! Every set with a smashing good profit for you, and with a competition-smashing price which only Stewart-Warner's great capacity makes possible.

With the line goes effective factory cooperation and sales helps—a powerful national advertising campaign, and the fairest franchise in the industry. And behind all is a great organization right now with this Silver Jubilee Line celebrating its 25th Anniversary—and definitely here to stay! Get details from your Stewart-Warner distributor or from the Stewart-Warner Corporation, Chicago, U. S. A.



Apartment Model

Another Unbeatable
Stewart-Warner Value

This Stewart-Warner Apartment Model. 6-tube Super-Heterodyne. Variable Mu and Pentode Tubes. Tone Control. Electro Dynamic Reproducer. Television Terminals. Walnut Cabinet of beautiful design and finish. Height 19 in.; width 14 in.; depth 11 in. Complete with tubes

\$52⁹⁵

RADIO » »

LOOK at these PRICES and Price RANGE

Apartment Model . . .
6-tube Super-heterodyne with specifications as shown under illustration below. Complete with tubes, only **\$52.95**

No. 1 Console . . .
Super-heterodyne Circuit. As described and illustrated on opposite page. **\$65.75**

Low Wave Converter . . .
An individual unit which adapts practically any A. C. set to low wave reception (down to about 20 meters). Erings in stations all over the world; amateur broadcasts; police signals, etc. Complete with tubes and cabinet, only **\$23.95**

No. 2 Console . . .
Same as No. 1 Console but with built-in, Low Wave Converter. Height 39 inches. Complete with tubes, only **\$87.75**

No. 3 Console . . .
Super-heterodyne Circuit. Variable Mu and Pentode Tubes. Electro Dynamic Reproducer. Tone Control. Television Terminals. Walnut Cabinet. Height 39 inches. Complete with tubes, only **\$71.75**

No. 4 Console . . .
Same as No. 3 Console, but with built-in, Low Wave Converter. Complete with tubes, only **\$93.75**

No. 1. Portable . . .
New, novel, convenient. Can be wheeled, plugged in, anywhere. Super-heterodyne Circuit. Variable Mu and Pentode Tubes. Tone Control. Electro Dynamic Reproducer. Walnut Cabinet. Height 29 inches. Complete with tubes, only **\$67.75**

No. 2 Portable . . .
Same as No. 1 Portable but with Television Terminals and built-in Low Wave Converter. Height 29 inches. Complete with tubes, only **\$90.75**

Console De Luxe No. 1 . . .
Super-heterodyne Set. Variable Mu and Pentode Tubes. Tone Control. Electro Dynamic Reproducer. Cabinet in beautifully matched Walnut, embellished with hand carving. Height 41 1/2 inches. Complete with tubes, only **\$82.75**

Console De Luxe No. 2 . . .
Same as Console De Luxe No. 1, but with Television Terminals and built-in Short Wave Converter. Complete with tubes, only **\$104.75**



Answers to Questionnaire

1. Does dealer carry midget line?
351 answered Yes; 19 answered No.

2. Does he consider midget a good merchandising item?
72 answered Yes; 298 answered No.

3. Do customers like to buy midget sets?
41 answered Yes; 259 answered No.

4. Do dealers carry midget sets?
41 answered Yes; 259 answered No.

11. Does dealer install and service midget sets free of charge?
329 answered Yes; 41 answered No.

12. What are the mechanical difficulties most often encountered?
208 answered Tube trouble
9 answered Wiring
92 answered Aerial
40 answered Bad installation
110 answered Selectivity
47 answered Shielding
50 answered Outside noises
42 answered No more trouble than other sets
24 answered Bad treatment by owners.

This questionnaire, reproduced from a recent issue of "RADIO", shows the opinions of 370 representative radio dealers on various angles of selling midget sets. Notice question No. 12, where these dealers list the most important mechanical troubles of midgets.

Thousands of Dealers

know the way to end the most common complaint in

Question No. 12—

“Use ARCTURUS Blue Tubes”

In any set, midget or standard size, under any conditions, summer or winter, Arcturus Blue Tubes give the kind of reception that means satisfied customers



See our exhibit at the R. M. A. Trade Show, Booths 45-46, Grand Ball Room, Hotel Stevens

Many radio dealers have a lot of tube trouble with midget sets. The reason is obvious—midgets are often equipped at the factory with low-cost inferior tubes. When the customer makes his legitimate kick, the dealer has to make good.

But there's a sure-fire way to avoid tube trouble in midget sets and all other sets. See that they leave your store equipped with Arcturus Blue Tubes. The quick action and life-like tone of Arcturus Tubes insure the kind of set performance that satisfies your customers. And thousands of dealers have found that Arcturus Tubes cut their costly service calls 50% or more.

If you haven't tried Arcturus Tubes, use them in the next ten midgets you sell and see how they cut tube trouble down to the minimum. Ask your jobber.

ARCTURUS RADIO TUBE COMPANY · Newark, N. J.

ARCTURUS

The **TUBE** *with the* **LIFE-LIKE TONE**

2 NEW MODELS THAT COMPLETELY BLANKET THE MIDGET MARKET

*READ THE SPECIFICATIONS—
THEY SPEAK FOR THEMSELVES*



THE TUDETTE WITH PENTODE

A beautiful Burl Walnut Cabinet.
Full Vision Dial with shadow pointer. Easy to read, simple of operation.

Tubes—

One screen grid, one PZ pentode, one 280 and two 551 mu tubes, matched to each set. Selectivity is unusually sharp and has a notable absence of interference. Volume Control operates with velvet smoothness, over full range. Nation-wide sensitivity.

Tone Shade—

Enables the listener to personally participate in the radio reception.

The entire set is small, light, and can be easily carried from room to room. Weight, complete, 27 lbs.

**Brings Beauty, Performance, Tone
within the reach of all**

\$54⁵⁰
**COMPLETE
WITH TUBES**



THE DEVON A VARIABLE MU SUPER HETERODYNE *with Pentode Amplification*

The new Devon model offers beauty, tone and performance unequaled by conventional screen grid T.R.F. or Super Heterodyne models.

Demand radios greatest achievement—Variable-Mu Super heterodyne. Two 551 type Variable-Mu tubes, two '24 type screen grid tubes, one '27 tube, one '30 rectifier, and one PZ pentode amplifier.

CHASSIS—Precision built, cadmium plated, double stage audio, R.C.A. licensed. Pentode amplification offers approximately four times the same amplifications possible with the ordinary type of tubes.

TONE SHADE—enables you to select the exact tone and shade of brilliance by the simple turning of the tone shade control.

Height, 18½ in. Width, 14 in. Depth, 11½ in. Weight, Approx. 40 lbs. boxed.

The
**ULTIMATE
IN RADIO**
\$69⁵⁰
**COMPLETE
WITH TUBES**

**Jesse French
Manufacturing Co.**

Formerly
Jesse French & Sons
Piano Company

Kindly send me full details and discount terms for the Jesse French Radio sets featured above.

Name _____
Address _____
State _____

BOOTH 117—EXHIBITION HALL—DEMONSTRATION ROOMS—1336 SOUTH MICHIGAN



ATWATER KENT RADIO

THE CHICAGO SHOW
IS A **BUYING SHOW**
... BUT THE BIG
YEAR-ROUND SHOW
ON YOUR OWN FLOOR
IS A **SELLING**
SHOW



ATWATER KENT

RADIO

As weeks, months and years roll by, the public's choice in radio is Atwater Kent.

Radios come, radios go.

Atwater Kent Radio **KEEPS ON.**

Leader in pioneering—leader in progress—leader in public demand—leader in sustained, consistent, satisfying net profits for radio merchants who keep their mind on the public's preference and their eye on the big turnover.

ATWATER KENT MANUFACTURING COMPANY

4700 Wissahickon Avenue

A. Atwater Kent, Pres

Philadelphia, Pa.

See us at the R. M. A. Show

Atwater Kent Exhibit, Booths B 23-24-25-26, Grand Ballroom, Stevens Hotel; Demonstration Rooms 700-701-701A. Also at the Music Industries Convention, Display Rooms 838-839-840, Palmer House. Hear Nanette Guilford, Atwater Kent artist and Metropolitan Opera star, at the Music Merchants' banquet, June 9.



Better tubes

Bigger Sales

AND A
FAIR
SQUARE
POLICY



THE advent of the new Pentode and Variable-Mu tubes has brought about important changes in radio set design. At the trade show you will find that most of the new sets on display use one or both of these tubes.

For months Perryman production has been increased steadily to keep pace with the new demand created by these new tubes. Many leading receivers are being Perryman equipped this year—a tribute to the inbuilt quality of Perryman products.

Jobbers and dealers can look forward confidently to a vastly increased tube business. Low list prices, the elimination of distress stock, the advent of the new tubes and the re-establishment of fair trade practices will mean far greater profits than ever before.

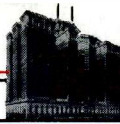
Several territories are now open for distributors interested in handling the new Perryman tubes. Our dealer policy has always been sound. It assures our distributors and jobbers everywhere a fair deal—generous profit—sincere cooperation. We will welcome the opportunity to explain special features to distributors. Headquarters: Rooms 619 and 620, Hotel Stevens. Booth 9, Exhibition Hall.

PERRYMAN ELECTRIC CO., Inc.
North Bergen, N. J.

PERRYMAN



RADIO TUBES

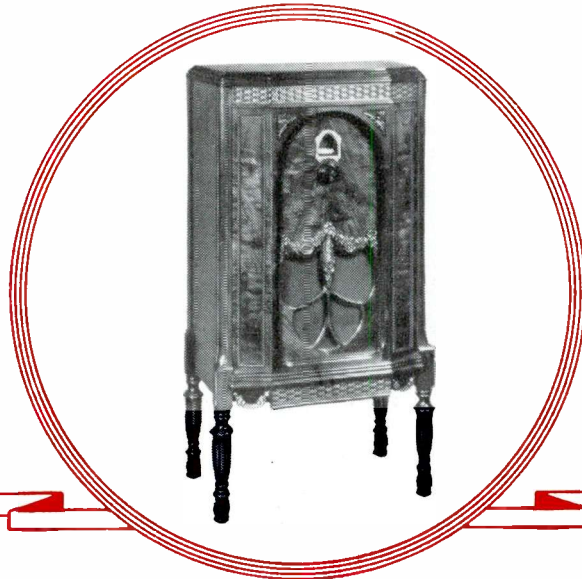


A MODEL FOR EVERY CUSTOMER

A complete price range . . . plus a retail sales plan that works

TUBES—The Brunswick 1932 models use Pentode, Variable-Mu, and Screen Grid Tubes. Subsequent advertisements and literature will define their number and adaptation.

COLOR TONE CONTROL—The Brunswick Color Tone Control visualizes musical tone in actual color on the tuning scale . . . Gold is the normal setting. To accentuate the treble, turn to blue . . . bass, turn to red . . . You can SEE as well as HEAR these tone variations.



MODEL 17—Lowboy walnut console of distinctive design. Superheterodyne, 9 tubes. Color tone control, Brunswick Uni-Selector, automatic volume control, dynatron oscillator, turret type tuning condenser, 12" super-dynamic speaker, two pentode tubes in output stage and power detector. Dimensions 41½" high, 21½" wide, and 13½" deep. List price, complete with Brunswick tubes . . . \$149.50

Brunswick instruments have ALWAYS been famous for high quality, mechanical excellence and exquisite cabinets . . . as near perfection as human skill in design and craftsmanship can attain.

AND NOW . . . Brunswick offers you for the 1931-1932 season the most complete line of instruments in its history. . . list prices \$79.50 to \$265.00, complete with Brunswick tubes . . . plus a RETAIL SALES PLAN that will help you move these

instruments off your floors and into the homes of satisfied customers . . . at a profit!

There IS a difference in the musical quality of radio. Brunswick will prove it to your satisfaction, and you can easily prove it to your customer's satisfaction through the new Brunswick "Step-Ladder Sales Plan". Ask us about it. Its simplicity will surprise you . . . Its results will amaze you!

MODEL 12—A sensationally new idea in radio cabinetry. Miniature high-boy console. Recessed panel of rare crotched walnut veneer, giving beautiful two-tone effect. Hand-carved grille. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 9" dynamic speaker and power detector. Dimensions 43" x 17½" x 10½". List price, complete with Brunswick tubes . . . \$99.50

MODEL 16—Lowboy console, finished in American Walnut. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 12" dynamic speaker and power detector. Dimensions 38½" x 19½" x 14½". List price, complete with Brunswick tubes . . . \$119.50

MODEL 42—Automatic Panatropé-with-Radio. Plays 20 ten-inch records without attention. Also plays twelve-inch records manually. List price, complete with Brunswick tubes and 20 records . . . \$265.00



MODEL 11—Table model or midget type, walnut cabinet, carved grille. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 9" dynamic speaker, power detector. Dimensions 22½" x 17½" x 10½". List price, complete with Brunswick tubes . . . \$79.50

MODEL 24—Graceful six-legged highboy cabinet with arched French doors, in matched ribbon walnut and high-lighted matched burlled walnut, hand carved and fluted legs. Superheterodyne 9 tubes. Color tone control, Brunswick Uni-Selector, automatic volume control, dynatron oscillator, turret type tuning condenser, 12" super-dynamic speaker, two pentode tubes in output stage, power detector. Dimensions 45½" x 22½" x 16½". List price, complete with Brunswick tubes . . . \$169.50

MODEL 33—Lowboy combination Radio-with-Panatropé, finished in American walnut. Cabinet lid with balanced stay arm. Panels of matched ribbon walnut, turned and fluted legs. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 12" dynamic speaker and power detector. 39½" x 19½" x 14½". List price, complete with Brunswick tubes . . . \$169.50

BRUNSWICK RADIO CORPORATION, NEW YORK—CHICAGO—TORONTO—*Subsidiary of* WARNER BROS. PICTURES, INC.

BRUNSWICK RADIO



ANNOUN

the new

Used and Recommended by Leading
Hollywood Cameramen

*Says one of them, Mr. V. E. Miller, Head of the
Camera Dept.—Paramount-Publix Corporation:*

"Your new Hollywood Model 16 mm. Motion
Picture Camera is all you predicted. I have been
working mine overtime . . . and I am more than
pleased with the pictures I have taken . . . It is as
good, if not better, than any I have seen in the 16
mm. field. Lens adjustment perfect . . . should
prove a decided advantage for the beginner.
Everyone who has seen mine wanted to
know where they could buy one."

All These Big Outstanding Features

So simple that anyone can
operate it.

Lightest weight—only 2 lbs.
10 oz., fully loaded.

Jam-proof—Trouble-proof.

Compact—only 8 $\frac{1}{4}$ in. long,
5 in. wide, 2 in. thick.

Easiest to load and unload.

Full-vision View Finder.

Fitted with Standard f3.5 lens.

Simplest lens adjustment.

Uses standard 16 mm. film.

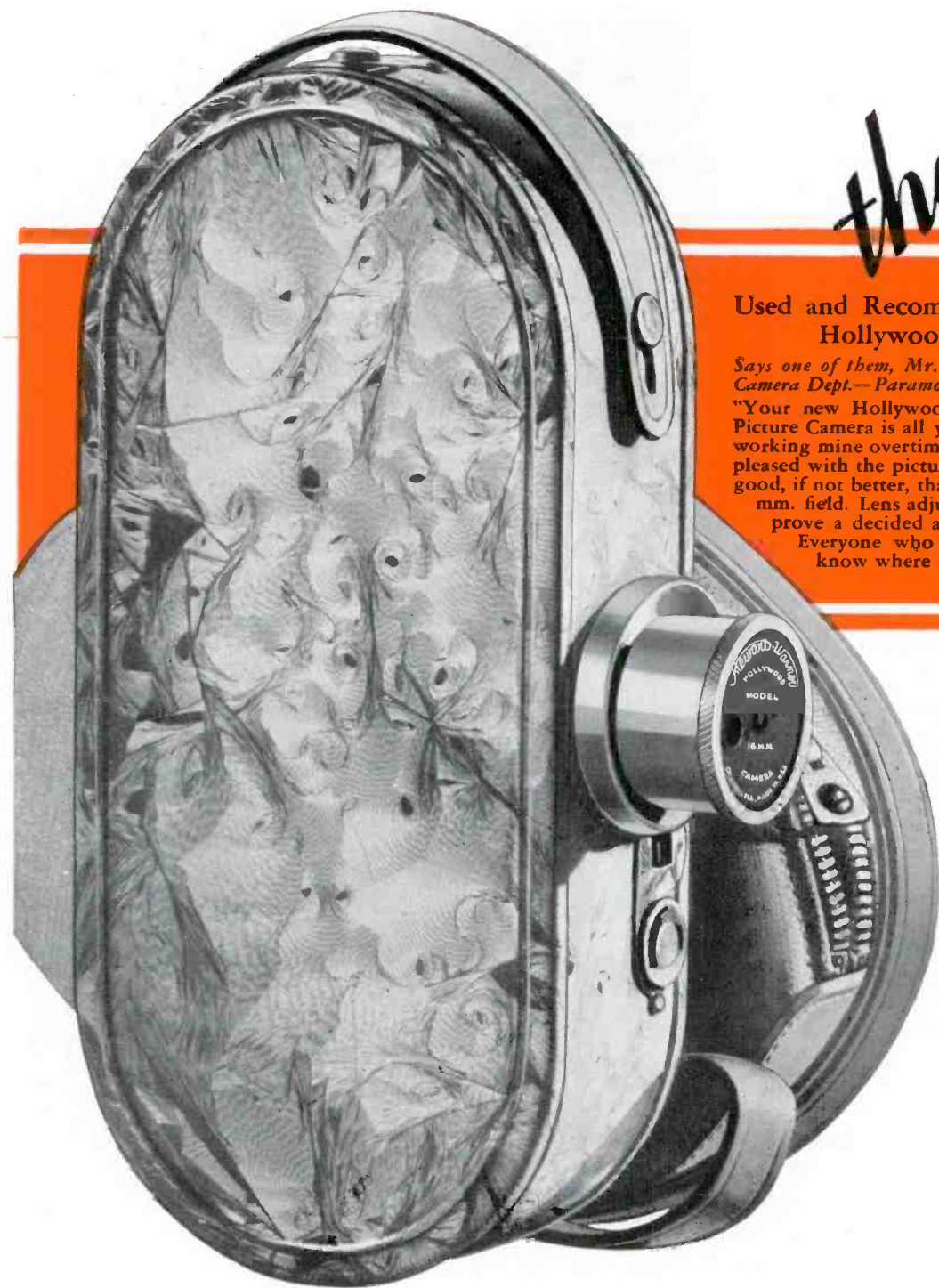
50 or 100-foot film capacity.

Audible film *footage* counter.

Spring-driven motor—no
cranking.

Beautiful enduring finish.

Built to Stewart-Warner's
traditional standard of
quality.



STEWART-WARNER *Home*



N C I N G

STEWART-WARNER *Home Movie Camera*

at
only \$ **50**

HOLLYWOOD MODEL
Complete with leather-bound, waterproof, slide fastener Carrying Case of smart new design

An Ideal Line for Aggressive Radio Dealers!
Big Demand—Quick Turn-over—Big Profits—No Servicing!

Stewart-Warner—for over 25 years manufacturers of quality products, including the well-known Stewart-Warner Radio—now announce a new line of home entertainment equipment, headed by the new Stewart-Warner *Home Movie Camera*.

This camera was designed and built for *amateurs* by expert Hollywood cameramen under Stewart-Warner supervision. It incorporates every essential for perfect movies—is so simple ANYBODY can operate it—yet because of Stewart-Warner's vast production facilities, it sells at only \$50—the lowest price ever quoted on a camera of comparable quality!

People everywhere and especially *parents* have long wanted a home movie camera. Sales in tremendous volume have been prevented only by *prohibitive prices* and by operation *too complicated* for the average person. But now, to meet the demand comes the new *Stewart-Warner*—the first *real* movie camera ever offered at a price in reach of all—a marvel of simplicity—and with a market that's *never been scratched!*

Pays a luscious initial profit constantly increased by the film projector and accessory sales—is free from all service bugaboos. Sold like radio, through demonstration.

Backed by an extraordinary RESALE PLAN supported by the heaviest National advertising campaign ever put behind a home movie camera. Carries one of the fairest, most liberal franchises.

This new camera is soon to be followed by a Stewart-Warner *Projector* and *Screen*. Both embody all essential features of highest priced products—yet are comparatively low priced.

Here without question is one of the sweetest propositions ever offered any merchant. But get the facts—from Stewart-Warner Corp., Chicago.

SEND THIS COUPON NOW!

STEWART-WARNER CORPORATION RR
1826 Diversey Parkway, Chicago, Ill.
Your Home Movie Camera proposition sounds interesting. Without obligation, please send full information.

Firm Name

Address

City State

Movie Camera



Walnut veneer with figured Butt Walnut panel.

Model 610 Six Tube Junior Receiver employing both Variable-Mu and Pentode tubes, tone control, full vision dial, dynamic speaker—List Price **\$48.00**
Less tubes

Model 810 Eight Tube Junior Superheterodyne Receiver employing both Variable-Mu and Pentode tubes, tone control, full vision dial, dynamic speaker. List Price **\$57.00**
Less tubes

PENTODE

AUDIOLA

KNOWN FOR ITS TONE

Ten years of building fine radios—and stronger today than at any time since we started.

A clean record.
No dumping.
No price cutting.



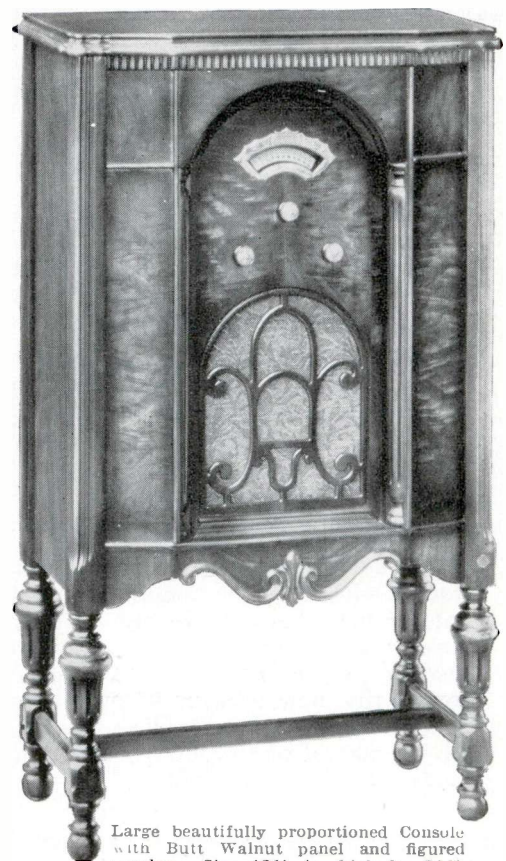
Beautiful Lowboy with figured Butt Walnut panel and figured overlays, size 39½ in. high by 23½ in. wide.

Model 612 Six Tube Full Size Receiver employing both Variable-Mu and Pentode tubes, tone control, full vision dial, dynamic speaker. List Price **\$60.00**
Less tubes

Model 812 Eight Tube Superheterodyne Receiver employing both Variable-Mu and Pentode tubes, tone control, full vision dial, dynamic speaker. List Price **\$69.50**
Less tubes

FULL VISION DIAL

SUPERHETERODYNE



Large beautifully proportioned Console with Butt Walnut panel and figured overlay. Size 42½ in. high by 24½ in. wide.

Model 814 Eight Tube Full Size Superheterodyne Receiver employing both Variable-Mu and Pentode tubes with large 12 in. dynamic speaker, tone control, full vision dial. List Price **\$76.50**
Less tubes

Dominant selling features + unquestioned quality + beautiful cabinets + extreme values means that an **AUDIOLA** franchise is a real asset. A few exclusive jobber territories are still available.

Write for Bulletin No. 531

Licensed by Radio Corporation of America

AUDIOLA RADIO CO.

430 SO. GREEN ST., CHICAGO

See the **AUDIOLA**

“SURPRISE PACKAGE” at the June Trade Show

Booth Number 129
Demonstration Rooms
601, 602, 610
Stevens Hotel
Chicago



Protect Your Profits with Products that are Protected with **SHAKEPROOF** Lock Washers!

SPECIAL OFFER!

Here is a handy kit of Shakeproof Lock Washers and Shakeproof Locking Terminals that is just what you need. It contains an ample supply of many types and sizes, neatly arranged in this special box. It makes a very convenient assortment for the shop and can be easily tucked in the tool bag. Mail the coupon below for free samples and complete information on how you can secure a Shakeproof Service Kit.

YOU can count on any appliance that is Shakeproof equipped to pay you a higher net profit. It won't need a lot of free service because Shakeproof Lock Washers keep connections tight and assure perfect performance. This means more satisfied customers—the surest sign of a growing business.

Test Shakeproof on any service job and you will quickly understand its many advantages. Then you'll know how important it is to handle only those products that are protected with this patented locking method. Free samples will be gladly furnished on request. Mail the coupon today.



"It's the Twisted Teeth that LOCK"

SHAKEPROOF

C O U P O N

Shakeproof Lock Washer Co.
2531 No. Keeler Ave., Chicago, Ill.
Gentlemen: Please send us free samples of Shakeproof Lock Washers and Shakeproof Locking Terminals. Also, tell us more about your special offer on the Shakeproof Service Kit.

Name

Address

City

State



Type 12. Internal For S. A. E. and Standard Machine Screws
Type 11. External For Standard Bolts and Nuts
Type 15. Countersunk For all Countersunk Screws
Type 20. Locking Terminals For Radio and Electrical Work

Shakeproof representatives are located in the following cities

New York City	Philadelphia	Boston	Pittsburgh	Schenectady	Cleveland
Detroit	Toledo	Cincinnati	Birmingham, Ala.	Dallas, Texas	Milwaukee
Los Angeles	Seattle	San Francisco	Toronto, Ontario, Canada		



The most Comp SOUND EQ AND ACCESSORIES



Model L-11

Model L-11 Level Indicator (above). This is a precision instrument for accurately determining the db output of any line.

Model T-830

Model T-830 Single Microphone Amplifier (Right) This is a single stage battery operated portable microphone amplifier, ideally adapted for use at a remote position from the main amplifier.



Model 403 Single Microphone Amplifier (above). This is a two stage A.C. operated portable microphone amplifier. It has sufficient output to use on long input lines.

Model L9 Electrodynamic Chassis (right). This is a small efficient electrodynamic chassis 8 1/4 inches in diameter and 3 inches deep overall. Also available in cabinets.



Write Department RR6 for Bulletins Nos. 56 and 57 for complete detailed information.

1. MICROPHONE AMPLIFIERS
2. MICROPHONE MIXING PANELS
3. CONTROL BOXES
4. SELECTOR BOXES
5. MATCHING TRANSFORMERS
6. VOLTAGE REGULATORS
7. STEP DOWN TRANSFORMERS
8. VOLUME LEVEL INDICATOR
9. D. C. SUPPLY UNITS

Operadio Man
ST. CHARLES,

Model 25 Matching Transformer (Right). Available in several different models making it possible to match speaker lines having impedances varying from 0.16 ohms up to 2,000 ohms.



OPERADIO

PRECISION



PRODUCTS

R. M. A. TRADE SHOW • BOOTH B-34 • BALLROOM

lete Line of EQUIPMENT ON THE MARKET!

- 10. AMPLIFIER COMBINATION UNITS
- 11. PHONOGRAPH UNITS
- 12. VOLUME CONTROLS
- 13. HIGH FREQUENCY EQUALIZERS
- 14. SPEAKER LINE TERMINAL BOXES
- 15. SWITCH STRIPS
- 16. PROGRAM SELECTOR PLATES
- 17. ELECTRODYNAMIC SPEAKERS
- 18. ELECTROMAGNETIC SPEAKERS

Manufacturing Co.
ILLINOIS, U. S. A.



Model 866-B
Model 866 B, D.C. Supply Unit (above). This furnishes pure direct current. Designed to replace large "banks" of storage B Batteries. Maximum capacity 210 mils. at 350 volts.



Model VR-10
Model VR-10 Voltage Regulator (Left) makes it possible to maintain 110 volts on any power line where the voltage may vary between 95 and 125 volts. Made in 500, 1000 and 1500 watt capacities.



Model T-1185 High Frequency Equalizer (Left). To be used at the main amplifier end of long microphone lines to equalize for the capacity effect of the line.

Model 281 Portable Power Amplifier (right). This is representative of a complete line of portable power amplifiers.



Model 281

OPERADIO

PRECISION PRODUCTS



Model No. 9 Electrodynamic Chassis (left). Especially designed electrodynamic chassis for maximum response over a frequency range of 30 to 7,000 cycles. Also available in cabinets.

DEMONSTRATION • ROOM 553 • HOTEL STEVENS



IT'S • NEW

and every receiver owner needs it



• Mark-Time Table Switch. Radio receiver cord is plugged into the switch. Mark-Time cord, furnished with switch, is plugged into the outlet. A clean over-the-counter item.

• Mark-Time wall switch, easily installed in any flush wall outlet box. A similar model can be built into the receiver. A big opportunity for your Service Department.



Mark-Time Switch gives every radio receiver an automatic deferred shut-off

NOW the radio fan's favorite tenor can sing him to sleep at night. When retiring it is no longer necessary to shut off the radio receiver. Merely set the Mark-Time switch for 5 to 30 minutes ahead, and go to bed. At the end of the period the current is automatically turned off.

Or, at night he can set his receiver to turn on automatically in the morning, to waken and entertain him.

Hundreds of your customers have wished for an automatic shut-off or an automatic starter. And think how it extends the periods of receiver use, speeding up the sales of tubes. Think of the extra profits on this amazing new device, for sale in your store and by your service man.

Mark-Time Switches are used also for lights and all electrical appliances.

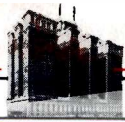
Investigate Mark-Time at the Radio Trade Show. Introduced February 15, 1931, Mark-Time Switches are now stocked by over 100 jobbers in the United States. The complete line released and exhibited for the first time in Chicago, June 8-13, B-58 Exhibition Hall, Hotel Stevens. Write for details.

M. H. RHODES, Inc., 1009 American Industrial Bldg.
Hartford, Conn. Member of Radio Manufacturers Association.

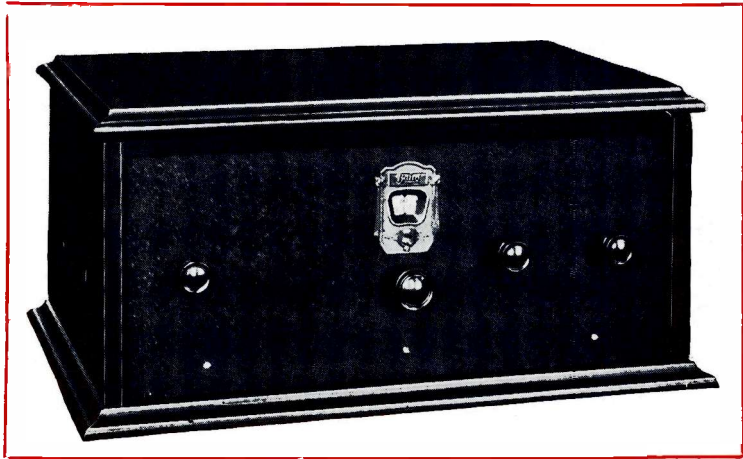
MARK TIME



AUTOMATIC SWITCH



UP goes the sales line on Baird and SHORTWAVE TELEVISION SETS



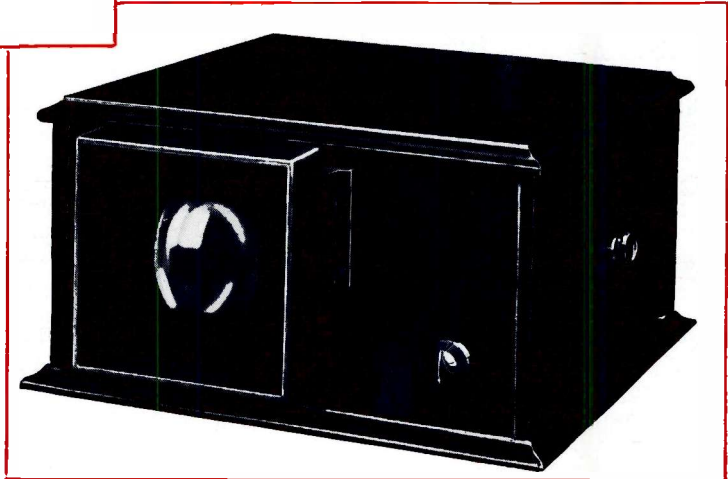
A New Era of Prosperity for the Radio Dealer!

Baird Sets, completely wired or in easily assembled kit form present SALES OPPORTUNITIES that have never been duplicated in radio merchandising! Perfected by Baird engineers after months of ceaseless study and experiment, they bring practical TELEVISION within reach of the most modest income! Your PROFITS are limited only by your own efforts. Nationally advertised, endorsed by nationally known authorities, you can sell hundreds of these Baird-built sets to experimenters and fans who have been eagerly awaiting the perfection of a practical shortwave and television receiver at a cost within their means! And every sale carries a SUBSTANTIAL PROFIT for YOU! Mail coupon below for details and descriptive matter—today.

Visit the BAIRD exhibit
RMA TRADE SHOW
Chicago—June 8th to 12th

A complete display of Baird Shortwave and Television Sets and Kits will be on display at our Booth No. 76—Exhibition Hall, Stevens Hotel.

Demonstrations of Shortwave and Television reception daily, Room 1005a, during the RMA Convention. Be sure to see both! It means DOLLARS to you!



SHORTWAVE & TELEVISION CORPORATION

70 Brookline Ave. Dept. L. Boston, Mass., U. S. A.

Owners and Operators of Stations W1XAV and W1XAU at Boston

CLIP » FILL OUT
and Mail this Coupon
TODAY!



SHORTWAVE & TELEVISION CORP.,
70 Brookline Ave., Boston, Mass.

Send me Price List and information on Baird-built Sets, Kits and parts.

I am a jobber: dealer.

Name

Address

I will will not attend the convention at Chicago

**JOIN US at the
RMA SHOW**
Chicago—June 8th to 12th
Ballroom Booths B 1-2-3
Headquarters and Private Exhibit
16th Floor, Stevens Hotel

SAY . . .

SET

- AUDIOLA**
- APEX**
- ATWATER KENT**
- BOSCH**
- BRUNSWICK**
- CLARION**
- COLONIAL**
- STAR-RAIDER**
- CROSLY**
- EDISON**
- ERWIN**
- FADA**
- GENERAL ELECTRIC**
- GENERAL MOTORS**
- GRAYBAR**
- GREBE**
- GULBRANSEN**
- HOWARD**
- KENNEDY**
- KOLSTER**

TODAY thousands of successful dealers are making quicker, easier tube sales with two magic words—**"SET-TESTED."**

Set-Tested—the Sylvania way—answers the one all-important question your customer has to ask. It proves that Sylvania Tubes are what he wants, because it shows him that they have been tried out in a set exactly like his. And that they have passed A+ in strict scientific tests for tone . . . distance . . . volume . . . selection.

Post the new Sylvania Certified Test Chart side by side with your stock of Sylvania Tubes. You will find that sales go faster—that there is less time wasted and fewer complaints. The test chart helps you select tubes, it convinces your customers that you have the right make and the right types.

Sylv

REGISTERED U. S. PAT. OFF.





TESTED

... and the sale is made

Clip the attached coupon at once. It brings you a copy of this chart FREE. It lets you learn for yourself what Set-Tested Tubes can do for your business.

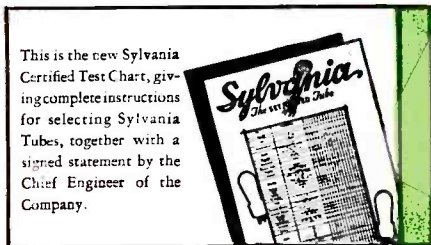
SYLVANIA PRODUCTS CO.
EMPORIUM, PA.

SYLVANIA INCANDESCENT LAMPS
SYLVANIA RADIO TUBES

Licensed
under
RCA Patents

- LYRIC
- MAJESTIC
- PHILCO
- RADIOLA
- SILVER MARSHALL
- SIMPLEX
- SONORA
- SPARTON
- STEINITE
- STERLING
- STEWART WARNER
- STORY & CLARK
- STROMBERG CARLSON
- VICTOR
- VICTOREEN
- WESTINGHOUSE
- ZANEY-GILL
- ZENITH

Radio



This is the new Sylvania Certified Test Chart, giving complete instructions for selecting Sylvania Tubes, together with a signed statement by the Chief Engineer of the Company.

SYLVANIA PRODUCTS CO.
Emporium, Pa.

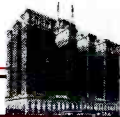
Gentlemen: Please send, without obligation, your new Sylvania Set-Tested Chart for easier tube sales.

Name

Address City

Jobbers

R 61



Surging Power . . . that's what Pentodes give to radio reception. Your Pentode means even more power when it's a Champion.

Recognized as a supreme radio achievement of Champion engineering the Power Pentode is adapted to your particular Radio set.

Try everywhere—you will only get added amplification, selectivity and the most harmonious radio reception through the use of Champion.

Make your own comparisons—search where you will—only in Champions will you get outstanding radio perfection.

CHAMPION RADIO WORKS

DAN VERS, MASS.

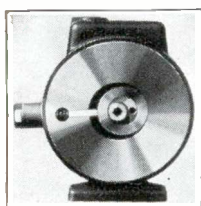
Champion

POWER PENTODE TUBE



EIGHT factors for PROFIT with NORGE

the electric
refrigerator
with the
ROLLATOR

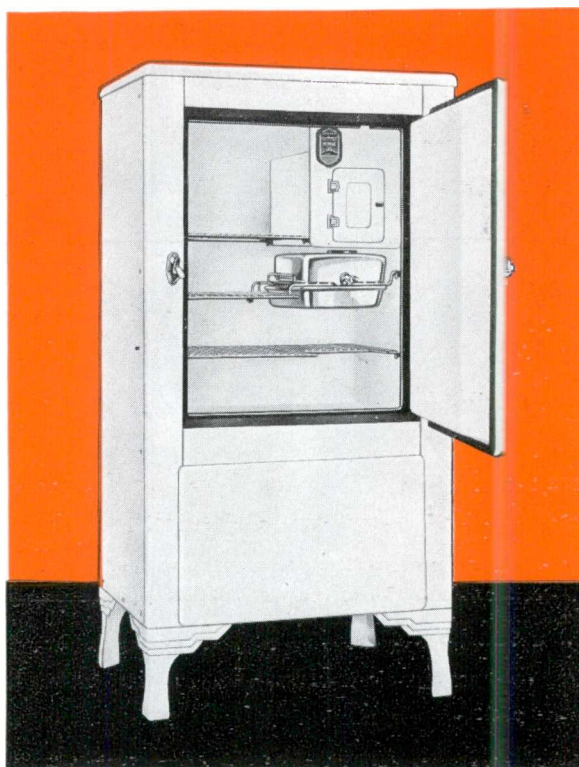


The Norge Dealer employs no skilled service staff . . . that part of usual operating expense becomes profit with Norge.

To just uncrate and plug in is a complete Norge installation . . . Norge is package merchandise and there are no refrigerator builders or mechanics on the Dealer payroll.

There are three standard Norge models (with specials and water coolers available) . . . it's a short line. The Norge dealer carries a low inventory with replacement stocks quickly obtainable.

A wholesome clean cut merchandising plan is operating for Norge and an effective advertising program is making



this highly salable refrigerator a rapid turnover product.

Dealers who investigate the Norge find not only these factors for profit but, also, unusually favorable discounts.

NORGE CORPORATION Division of BORG-WARNER
654 East Woodbridge Street Detroit, Michigan

IN CANADA
NORGE CORPORATION OF CANADA, Ltd., 235 CARLAW AVE.
TORONTO, ONTARIO, CANADA

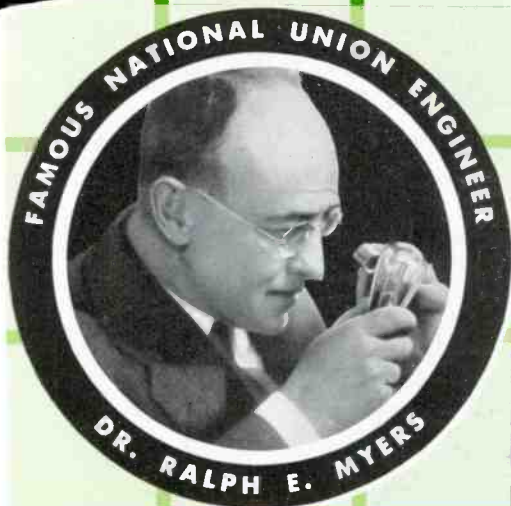
NORGE
WITH ROLLATOR





HAS ANY OTHER
RADIO COMPANY A
RECORD LIKE THIS?

UNION SALES!



HARD TIMES COULDN'T HOLD BACK NATIONAL UNION!

The last R. M. A. figures show that 17% of all tubes sold carry the National Union trade mark! Only one manufacturer's sales are greater. And in the critical standard equipment field National Union tubes are the leader! Already they are shipped in more sets than any other brand.

You've heard how National Union sales were booming. It's been the talk of the trade. But look! Just look what the latest R. M. A. figures show! Here's proof that will make you roll your eyes!

In July last year National Union was selling 6% of all the tubes sold by all the companies. In February the R. M. A. shows National Union selling 17% of all the tubes!

An amazing record for any new company in a competitive field. But it is almost miraculous when you realize it was made during the hardest year radio has faced!

We're proud of that record. And you'll be proud to sell the tube that gave us this business. For only a quality tube . . . precision

made . . . perfect day after day . . . could roll up such an impressive record in so short a time against tubes long entrenched in the business.

Why has National Union prospered? Simply because National Union tubes are developed, made and perfected on revolutionary scientific principles and thus bring amazing improvement to any set!

Set manufacturers, dealers and set owners have discovered this and the result is the astounding sales increase graphically shown above.

Write and let us tell you how you can capitalize on the rapid success of National Union Tubes — the Standard Tube for Standard Sets. The tube that makes money!

NATIONAL UNION RADIO CORPORATION
400 MADISON AVENUE • NEW YORK CITY



SERVICING and TUBE TESTING REDUCED TO SIMPLICITY

Readrite

TEST

Pentode output, Var. Hi-Mu, New Auto and all other tubes in new and old receivers with Nos. 700—600 Testers or direct with No. 400 Tester.

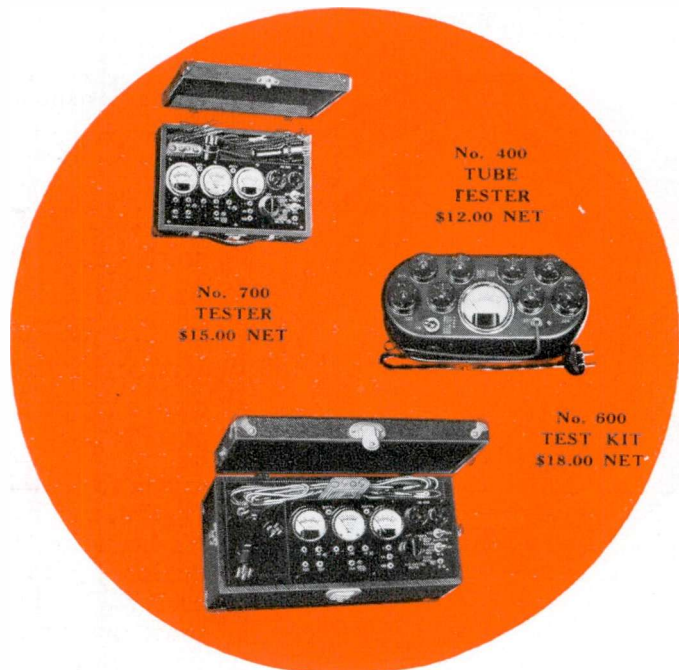
No. 700 TESTER

The No. 700 tester with selector switch tests voltages of plate, grid, cathode and screen grid as well as plate current, filament, line and power voltage. The grid swing test for tubes is used. Continuity tests of transformers, condensers, etc., can be made and resistances up to 100,000 ohms can be measured.

The eight scale readings of the meter may be used separately —0—10—60—300—600 D.C. volts, 0—10—140—700 A.C. volts and 0—20—100 milliamperes. Price \$15.00 Net.

No. 600 TEST KIT

Contains the same equipment as No. 700. Carrying case is lock equipped with space for tools and tubes. Test equipment is removable and can be used for complete test panel for shop purposes. Price \$18.00 Net.



Keep your testing equipment up-to-date with these practical instruments. Order today from your jobber or direct if not obtainable.

*Other new and useful instruments in catalog
sent for the asking.*

READRITE METER WORKS

Established 1904

6 College Ave.

Bluffton, Ohio

SEE OUR DISPLAY B-55—ALSO ROOM 502, HOTEL STEVENS

Come...

with other leading Radio men to see

WILLIAMS ICE-O-MATIC

during the Convention . . .

A special Radio men's display of the complete Williams Ice-O-Matic line will be open at the Factory Display Rooms, 187 North Michigan Ave., from 9 a. m. to 6 p. m., June 8-12.

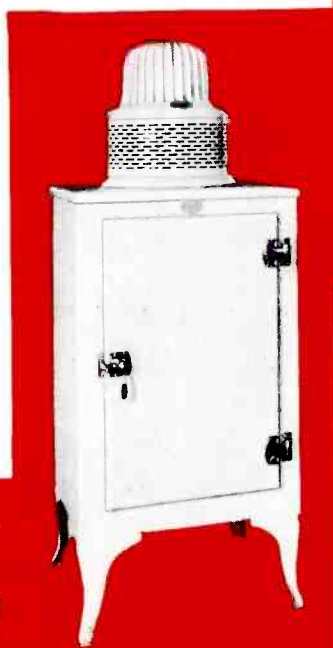
YOU will see *why* the leading radio distributors and dealers of America are turning to Williams Ice-O-Matic the minute you see the complete line of Ice-O-Matic electric refrigerators. Here is the most complete line of models and capacities in the industry—the *one* line that meets *every* domestic and commercial need. Ice-O-Matic offers sealed units for location *either* above or below the cabinets, belt-driven units of proved dependability, and the finest line of commercial units in America.

Williams Ice-O-Matic is famous for its 15 great features of electrical refrigeration. Other makes have some of these features—but only Ice-O-Matic offers *all* of them in a full range of models at popular, profit-making prices, with food storage capacities from 4 to 13 cubic feet.

Electrical refrigeration is a "natural" companion line to your radio business. This year will see a combined electrical refrigeration advertising expenditure by the N. E. L. A. and leading makers of more than \$10,000,000. The market is scarcely touched—it is *conservatively* estimated that 1,000,000 electric refrigerators will be sold in 1931.

Come, with other leading Radio men, to the Ice-O-Matic display during the Convention. Get all the facts on Ice-O-Matic—weigh its advantages, and *exclusive, full-profit* franchise against the field and you'll see *why* so many leading radio distributors are lining up with Williams Ice-O-Matic.

WILLIAMS
ICE-O-MATIC
REFRIGERATION



TERRITORIES FOR DISTRIBUTORS

will be discussed in confidence with active distributor organizations. Please sketch the size of your selling force, your dealer outlets, warehousing facilities, financing, etc., and list lines now represented by your firm. A few splendid territories, still open, offer remarkable distributor opportunities.

Ice-O-Matic Division

WILLIAMS OIL-O-MATIC HEATING CORPORATION · BLOOMINGTON, ILLINOIS

Radio Retailing, June, 1931



The new WESTINGHOUSE MERCHANDISING DEPARTMENT

offers the most complete line of custom-styled electrical products ever advertised under one name and sold *by one sales organization* with nation-wide distribution.



A small, 8-tube super-heterodyne radio with remarkable style and performance — the Columette.



A complete line of heaters, including three handsome new Cozy Glow models.



Fluffy warming pads with non-radio - interfering thermostatic control.

Westinghouse
ELECTRIC
APPLIANCES
for the
HOME

**ONE SELLS
THE OTHERS**



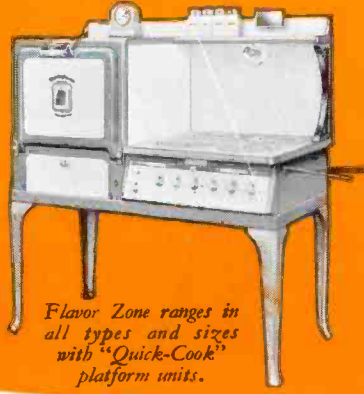
New super-suction vacuum cleaners including a low-priced motor-driven brush model.



A range line that includes special models for apartment house and small home installation.

Westinghouse

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY • Merchandising Department • MANSFIELD, OHIO



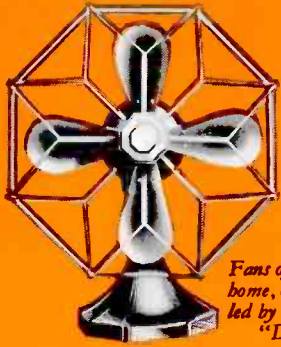
Flavor Zone ranges in all types and sizes with "Quick-Cook" platform units.



The famous "completely balanced" refrigerator line with amazing improvements and kitchen-spanned design.



A full line of radios headed by radio's new sensation—the Colmaire.



Fans of every type for home, office and store, led by the smart new "Debon-air."



A superior line of irons, headed by the new 1000-watt adjustable Master-Matic.



A marvelous new band vacuum cleaner with motor housing, nozzle and handle of molded Micarta.

Artistic percolators and complete urn sets in many styles to suit every individual taste.



Automatic and standard toasters with the ingenious "Turnover" principle that prevents burned fingers.



A full line of waffle irons, standard and automatic, designed for beauty and uniform results.



A specially designed refrigerator for the small home or apartment at an unusually low price.



Water heaters for every purpose, including the versatile Adapt-o-matic type.

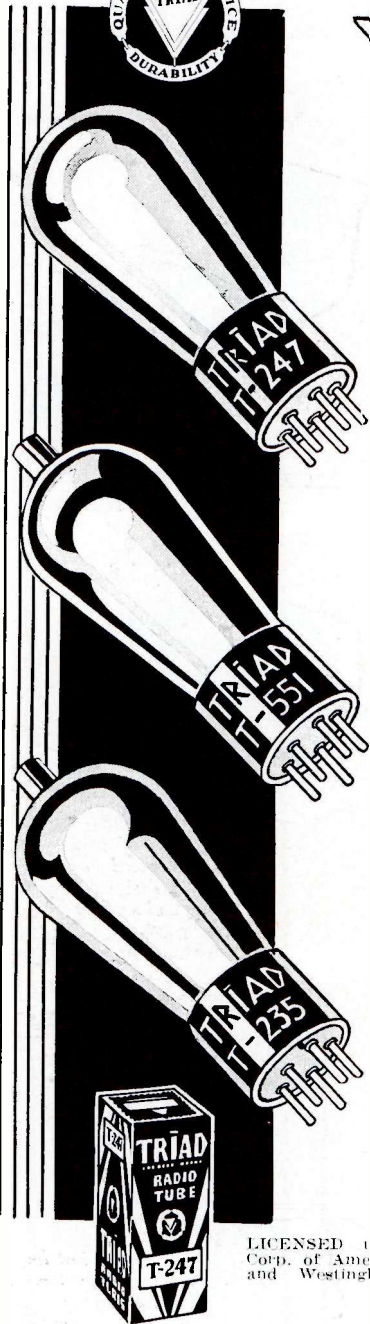


An efficient line of water systems in all sizes for deep or shallow well operation.





TRIAD



Announces 3 New Radio Tubes

TRIAD PENTODE TYPE T-247

A new DEPENDABLE PENTODE that actually does the work others claim. Its extremely high amplification factor combined with a very high power output results in increased maximum sensitivity of a set with an additional gain in volume over the 245 type power tube. List price \$1.90.

TRIAD VARIABLE MU TYPE T-551

Designed to eliminate cross talk and distortion and reduce static to a minimum; the T-551 can replace the type 224 in most present circuits with decidedly beneficial results. List price \$2.20.

TRIAD VARIABLE MU TYPE T-235

Designed with many of the same characteristics as the 224 type, with the additional feature of a plate current grid voltage curve that makes it adaptable for use in automatic volume control circuits by virtue of its low percentage of distortion at very high grid bias. List price \$2.20.

For months we have been producing TELEVISION and SHORT WAVE TUBES—Keeping PACE with the NEWEST in Radio. TRIAD NOW offers a QUALITY RADIO TUBE FOR EVERY RADIO NEED! Additional new type tubes to be announced shortly.

LICENSED under patents of Radio Corp. of America, General Electric Co. and Westinghouse Electric & Mfg. Company

We invite you to visit THE TRIAD DISPLAY BOOTH 90, Exposition Hall, R. M. A. Show.

TRIAD MANUFACTURING CO., Inc. PAWTUCKET, R. I.



"EXTRA PROFIT" Coupon

Clements Mfg. Co., 15A Clements Bldg.,
6650 So. Narragansett Ave., Chicago, Ill.

You may send us your plan for increasing the profits of radio stores. Quote prices on Clements vacuum cleaners and tell us why we can sell them easier than any other vacuum cleaner.

Name.....

St. Address.....

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

My Jobber is.....



. you may enjoy a
new **additional** revenue
by mailing this coupon . .

Are you missing these ... *Extra* Profits ?

RADIO dealers are rapidly discovering that vacuum cleaners are not only a logical appliance for radio stores but that they *sell best during the season when radio sales are the lowest.*

A vacuum cleaner is a household electric appliance the same as a radio. There is no servicing—no "trade-ins." It will fit into your store and your sales methods. When each of your customers has completed payments for his radio, how easy it is to suggest that he continue similar payments on a new vacuum cleaner.

Why shouldn't you enjoy a larger revenue—a larger profit—from present customers . . . and also get new customers through vacuum cleaner sales and then sell them a radio.



Why the new Clements..... is adaptable for radio stores

The Clements plan for radio stores includes a convenient "stand demonstrator," effective window cards, illustrated folders for store distribution, personalized mailings with dealer's names to your vacuum cleaner prospects with 24-page booklet, folders and letters, mats for your ads, circulars for enclosures, salesmanship course for your salesmen, etc. The "stand demonstrator" (illustrated here) has proven a phenomenal producer of store sales.

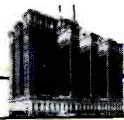
Let us tell you why and how Clements "Air-cushion" vacuum cleaners get **MORE DIRT . . . QUICKER . . .** and **SAVE** the rugs. The attachments serve more purposes than any other cleaner. The Clements Mfg. Co. made the first vacuum cleaner 20 years ago and the Clements—tho popularly priced—is the best cleaner made today—*regardless of price.*

May we (without obligation), send you information of vital interest to you as a radio dealer? Just mail the coupon.

The Clements "Air-cushion" Vacuum Cleaners

MAIL COUPON TODAY





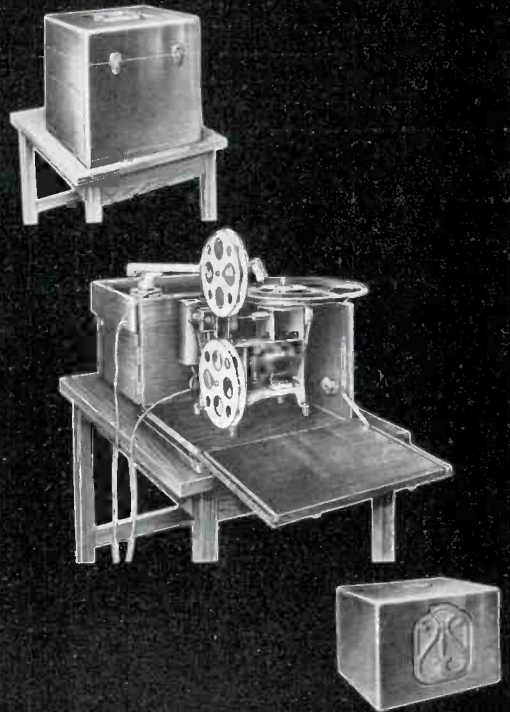
The NEW 1931 LINE

LOW PRICE

At prices so low that everyone can afford them, Sprague Visivox Home Talking Movies present to the radio and musical dealer the opportunity of a lifetime to get in on the ground floor of a brand new industry. Liberal discounts mean continuous, large, constantly increasing profits.

NATIONAL ADVERTISING

Three forms of advertising will help Sprague dealers in their sales of Visivox machines. Schedules in colors and in black-and-white will run in many leading national publications. Newspaper advertising will be used wherever there is distribution. And sales promotion material of a particularly appealing character is now being produced for the benefit of Sprague dealers. Sprague national advertising will reach ten million families.



VISIVOX Models A and B.

The upper illustration is Visivox Portable Model "A" showing compactness when closed. Centre illustration shows Model A open and ready for projection. Lower photo Model B used with Model A where no radio is available. List price model A—\$119. List price Model B—\$50. List price A and B combined, complete portable outfit—\$169.

FILMS are available

Libraries of film and synchronized records are available for Visivox dealers on either rental or purchase basis. Permanent profits on customer rentals add to the dealer's profit.

SPRAGUE VISIVOX



that HAS EVERYTHING



VISIVOX Model C.

The complete Visivox Talking Moving Picture projector in handsome walnut cabinet contains a synchronized turn-table and projector with phonograph pick-up, including amplifier and full tone speaker. In the base are drawers for records and films. Visivox operates standard phonograph records or 16" theatre records, uses 16 m.m. films standard for all home moving pictures

Be sure and see the Visivox exhibit at the Chicago Show. For full information about territories, etc. address

SPRAGUE SPECIALTIES COMPANY
QUINCY, MASS.

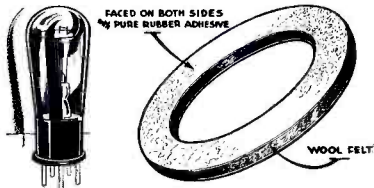
INSTANT APPEAL

"I WANT IT" is the reaction of everyone who sees and hears the Sprague Visivox Home Talking Movies demonstration. The realization that in this compact machine there is combined an excellent phonograph, a first-class moving picture projector for 16 m.m. films and the newest perfected talking moving picture projector, brings instant interest on the part of people who see and hear this machine. Advertising will do much to intensify that interest, and the low prices add to the appeal. A demonstration is conclusive.

SIMPLICITY

Even a child can operate the Sprague Visivox successfully. The utter simplicity of all models and the ease of operation constitute a new marvel of efficiency. Anyone who has ever operated a moving picture machine will appreciate the absence of feed and take-up sprockets; the fast mechanical re-wind; the simplicity of threading.

HOME TALKING MOVIES



Now - A Shock Absorber for Radio Tubes . . . !

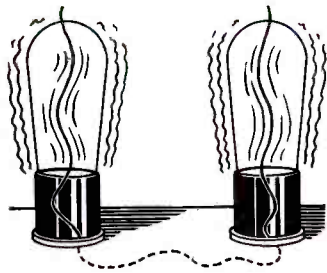
"COMPLETE with tubes"—What a welcome phrase and how a reality! Manufacturers, by the use of STIKTUBE SOCKET WASHERS (Patent Applied For) are now shipping sets from the factory with the tubes finally inserted in the sockets but quietly cushioned there by this adhesive wool felt shock absorber.

All the way to your store and into the home with the same tubes which were in the set when it was tested and balanced at the factory.

No more useless service calls by you—just to push a tube into its socket—no more losses where you had to replace tubes which were paralyzed, due to others in the set chassis having sprung loose.

A complete unit from the factory to the home—and now to the multiplicity of spares for spare time tubes. Look at your sets—most of them if they are equipped with STIKTUBE SOCKET WASHERS then use them as a selling point with your customers.

SAMPSON INDUSTRIES, INC.
4225 OLIVE STREET
ST. LOUIS, MO.
MAKERS OF STIKTAPE AERIAL



STOPS TRANSMITTED AND SYMPATHETIC TUBE VIBRATIONS

Thump a tube in the set with your finger. Note the thud that comes out of the speaker. When one tube in the set begins to vibrate or rattle, it transmits this vibration through the set chassis to all the other tubes. STIKTUBE SOCKET WASHERS shield each tube from transmitted vibrations. In the picture above the dotted line shows how vibrations are carried from one tube to another, giving overtones, harmonics and distortion. STIKTUBE SOCKET WASHERS stop this. They are the acoustic shield which the set has always needed. That is why fifteen prominent set manufacturers have adopted them.

SENSATIONAL

New DEVELOPMENT

Now Available To DEALERS!

WITH A SPECIAL OPPORTUNITY TO OBTAIN YOUR INITIAL STOCK FREE

Most important discoveries are accidental. STIKTUBE SOCKET WASHERS (Patent Applied For) were designed to provide a means for the manufacturer to ship sets complete with tubes without injuring tubes in transit. When sets, shipped in this manner, were sold to the customer it was found that reception was smoother and clearer. This was because STIKTUBE SOCKET WASHERS shielded the tubes from transmitted and sympathetic vibrations. Dealers immediately requested that we supply them with STIKTUBE SOCKET WASHERS to use as an added service whenever they sell tubes.

When STIKTUBE SOCKET WASHERS are placed on the base of the tube and the tube is placed in the socket, better performance is sure. Not only is the tube shielded from shocks and vibrations but the sensitive contact points are protected from dirt and foreign particles.

STIKTUBE SOCKET WASHERS are now being packed in flat lithographed cans, similar to the STIKTAPE AERIAL tin. There are ten washers to a can and twelve cans to a dealer display carton. The list price of them is 75c per can of ten washers, and the dealer's discount is the usual 40%.

As a special introductory offer, we are going to give every dealer three cans, or thirty STIKTUBE SOCKET WASHERS free-of-charge with the return of the coupon below and an order for one dozen rolls of STIKTAPE AERIAL.

THIRTY STIKTUBE SOCKET WASHERS FREE OF CHARGE

Just send in the coupon below. You are all familiar with STIKTAPE AERIAL. The entire trade has adopted it and admits it is an ideal antenna for every radio set. STIKTUBE SOCKET WASHERS and STIKTAPE AERIAL are two products which mean better reception to the radio set owner.

SAMPSON INDUSTRIES, Inc., 4225 Olive St., St. Louis, Mo.:
You may send us one dozen rolls of STIKTAPE AERIAL for which we attach check in the amount of \$7.20. Please find attached check for \$1.80, which is 25 per cent deposit on one dozen rolls of STIKTAPE AERIAL. Upon delivery of one dozen rolls we will pay the balance—\$5.40 C. O. D.
With this order, we will obtain thirty STIKTUBE SOCKET WASHERS (Patent Applied For) free-of-charge. The actual value of these washers which we are to obtain free is \$2.25.

Your Jobber's Name Dealer's Name
Address Address

ALL ORDERS MUST CONTAIN YOUR JOBBER'S NAME

SAMPSON STIKTAPE AERIAL

.. A Marvelous .. Invention Ends Radio Installation Griefs

With STIKTAPE AERIAL dealers are getting their installations done 25% to 30% more quickly, neat, complete, window ledge accessories for you or your customers with the modern, quality of a job done right.

STIKTAPE AERIAL sticks any place and can be installed in any room in ten minutes. It is of your choice, behind bookshelves or under rugs and it will not harm any of its fittings. You can place the set anywhere in the room and the installation of STIKTAPE will be just as convenient.

The new flat panel set you heard when the aerial hangs in the sky. STIKTAPE sets, by each window ledge will take care of all your antenna problems in seconds.

Special sets made by use of the most prominent radio engineers in the industry reveal more and more that STIKTAPE is a revolutionary discovery, simple, useful. It was demonstrated that STIKTAPE has a specific use for every man as great as the ordinary dwelling and in a matter of one length transformed itself to modern radio. Antennas—clean and interesting scientific facts are necessary.

\$1.00 COMPLETE

SAMPSON INDUSTRIES Inc. ST. LOUIS, MO.



RIDE « THE WAVE of SUCCESS with U.S. APEX and *Gloritone* RADIO

featuring ✓✓

The PENTODE and FULL RANGE MU TUBES

AUTOMATIC VOLUME CONTROL METER TUNING

SUPERHETERODYNE *and* ✓✓

• Engineered with precision, housed in cabinets of beauty and distinction—and offered at prices which make them the greatest dollar-for-dollar value on the market . . . there are the factors which account for the outstanding success of these up-to-the-minute radios.

The sensational increase in sales volume during 1930 and early 1931 has startled the industry. The success of the U. S. Radio Line has literally swept the country—and is still gaining momentum! Really a quality radio at a popular price. We offer full dealer co-operation and complete promotional material. Write or wire TODAY!

United States Radio & Television Corp.
Marion, Indiana

Model 10-B
10 Tubes
Superheterodyne
4 Tuned Circuits
Pentode and Full
Range Mu Tubes
Automatic Volume
Control
Meter Tuning
List Price
\$99⁵⁰
Complete with Tubes



Model 26-P
Five Tubes • Pentode Tube
Illuminated Dial
Dynamic Speaker
List Price
\$49⁹⁵
Complete with Tubes



Model 8-B
Eight Tubes
Superheterodyne
Pentode and Full
Range Mu Tubes
Automatic Volume
Control
List Price
\$79⁹⁵
Complete with Tubes



Table Model Same as Above
\$67⁵⁰
Complete with Tubes



**Always A Good Radio
Now Infinitely Better**



"Tube Sellers" that SELL TUBES!

TUBES TESTED FREE

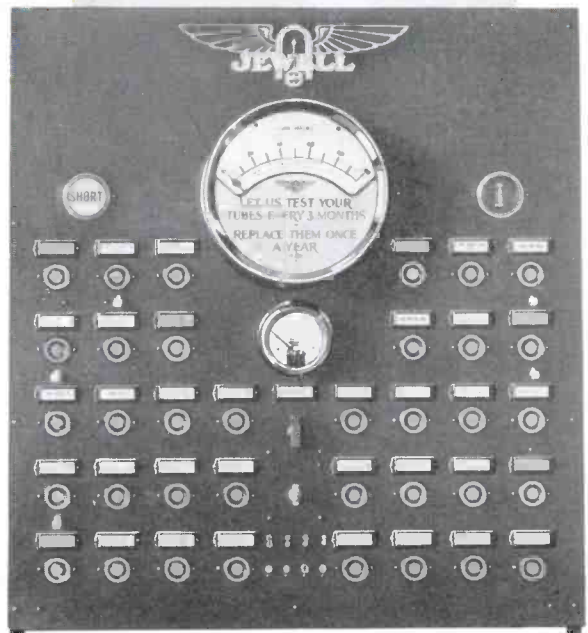
MILLIONS and millions of radio tubes that should have been in the junk pile long ago are in use today, just because their owners don't know that the tubes are bad.

Jewell Tube-Sellers enable you to capitalize this condition. This impressive tube testing equipment demonstrates tube faults to radio owners. They can read the large, accurate meters of these impressive testers for themselves.

Alert dealers from coast to coast are increasing tube business, two, three, four, five, and six fold by the installation of accurate and impressive tube testing apparatus and the use of systematic and impressive methods of testing.

You should know the whole story back of the Jewell Tube Selling Program, about Jewell merchandising plans that will enable you to corral the tube business in your neighborhood. Remember tube business also means a customer relationship that will result in set business.

Mail the coupon for the complete Jewell Tube-Seller story.



31 YEARS MAKING GOOD INSTRUMENTS
JEWELL

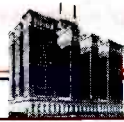
JEWELL ELECTRICAL INSTRUMENT COMPANY
1642-A West Walnut Street, Chicago

Mail complete literature today.

Name

Address





Announcing the most complete SERVICE INSTRUMENT EVER BUILT!



Pattern **JEWELL** **444** SET ANALYZER

Here are a few features
of the Pattern 444:

1. Tests sets using every type of tube, including variable-mu and pentodes.
2. Any circuit test requires only one switch setting.
3. A. C. and D. C. tests selected by separate switches. No confusion.
4. Tests all tubes including rectifiers, variable-mu, and pentodes.
5. Triple range output meter.
6. Three range ohmmeter.
7. Twenty-four instrument ranges for use with test leads.
8. Non-shatterable meter glasses.
9. Owner's name engraved on battery cap.
10. A. C. current ranges for servicing electric appliances (0-4-8 amps.)
11. Complete accessory equipment.

Again Jewell scores a knockout! The Jewell Pattern 444 Set Analyzer represents the biggest value in a service instrument ever offered to the radio trade.

The Pattern 444 combines compactness with convenient operation, complete testing facilities with high testing speed, and a high degree of accuracy with the sturdy construction essential in radio servicing.

Like the popular Pattern 199 which it replaces, the Jewell Pattern 444 is backed by complete service data and the Jewell chart method of set analysis.

Every serviceman should be equipped with the 444. Its keen performance and professional appearance inspire confidence and resourcefulness that are invaluable in service work.

Learn all about the Jewell Pattern 444.

31 YEARS MAKING GOOD INSTRUMENTS
JEWELL

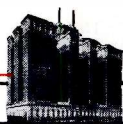


JEWELL ELECTRICAL INSTRUMENT COMPANY
1642-A West Walnut Street, Chicago

Mail your bulletin describing the many new features of your new Pattern 444 Set Analyzer.

Name

Address



and *Now*
 the *NEW*
Clarion Jr.

WITH 8 AMAZING FEATURES

- | | |
|--|--|
| 1 PENTODE Tube | 5 Fully shielded |
| 2 Multi-Mu Tubes | 6 Full oversize Dynamic Speaker |
| 3 Improved Tuned Radio-Frequency Circuit | 7 Beautifully-figured Walnut Cabinet |
| 4 3-gang Condenser with die-cast plates | 8 New low price — \$???? ready to play |

America's Lowest Price
 Quality Radio

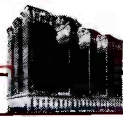


HEAR AND SEE

Clarion Jr.

AT THE SHOW, SUITE 706

STEVENS HOTEL



Clarion

THE HOTTEST LINE IN RADIO

Now—the Clarion Mystery Model

Model 95 Clarion Radio—a new set that will be the talk of the country—coming soon.

You'll see the Clarion Mystery Model at the Radio Show—till then it's a deep secret! It's just the set every radio dealer has been waiting for to complete his line . . . new . . . startling . . . mysterious . . . watch for it at the Radio Show!

The Clarion Mystery Model will be unveiled for the first time at the Radio Show—Suite 706, Stevens Hotel.

15 Reasons for Clarion Superiority

- | | |
|------------------------------------|------------------------------|
| 1. Super-Heterodyne | 8. 98% Pure Tone |
| 2. PENTODE Tubes | 9. Super-Power |
| 3. Multi-Mu Tubes | 10. Greater Distance |
| 4. Automatic Volume Control | 11. Cabinets De Luxe |
| 5. Full-Vision Dial | 12. Extreme Selectivity |
| 6. Static Reducer | 13. Improved Dynamic Speaker |
| 7. Light-Beam Tuning | 14. Advanced Engineering |
| 15. Priced complete—ready to play. | |

SUPER-HETERODYNES with PENTODE Tubes . . . Multi-Mu Tubes . . . Automatic Volume Control . . . Full-Vision Dials . . . 98% Pure Tone . . . Cabinets De Luxe . . . Static Reducer . . . Priced complete with tubes.

Clarion leads the radio world with these new model PENTODE Super-Heterodynes . . . selectivity, sensitivity, tone quality, long-distance ability unheard of! Clarion was the first with *both* PENTODE and Multi-Mu Tubes—first priced at less than a hundred dollars complete, ready to play. Clarion blazed the trail with these new Super-Heterodynes! And now Clarion continues to break records—wherever seen and heard! Get your copy of the Clarion Times, and learn why leading stars of the stage, screen, and music world universally acclaim Clarion!

TRANSFORMER CORPORATION OF AMERICA
Ogden and Keeler Avenues, Chicago



Model 80—7-tube
PENTODE Super-Heterodyne
Mantel Model
List \$67.50 complete with
tubes—ready to play



Model 91—8-tube
PENTODE Super-Heterodyne
Console Model
List \$99.50 complete with
tubes—ready to play

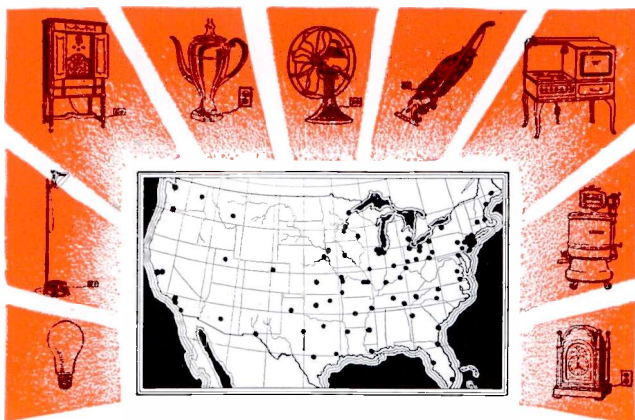
98%
pure tone

(Booths Number 76-77-78 at the Radio Show
Exhibition Hall, Stevens Hotel)



"HOW I GET **EXTRA** VALUE FROM MY ADVERTISING DOLLAR"

"She asked for a General Electric Cleaner...said she supposed I handled them, for she'd seen my ads on General Electric Fans. When she left the store I figured that I get a big *plus value* for every dollar I invest in advertising General Electric merchandising products."



You can obtain prompt delivery of everything electrical from a General Electric Supply Corporation wholesale warehouse near your store.

When you handle a complete line bearing the same name, you seldom need to change the trademark which identifies your local advertising. As you constantly repeat the General Electric name, in association with your own, you benefit more and more from its tremendous sales-developing power.

Every dollar spent for advertising will do more than a dollar's worth of work... and you will make a greater net profit... when you concentrate your selling efforts behind the merchandise that you purchase from the General Electric Supply Corporation.

GENERAL  ELECTRIC
SUPPLY CORPORATION



Not just a New Idea but a Proven Successful Merchandising System!



Silver-Marshall executives, assisted by the best economists in the United States, spent seven months building a 1932 policy to meet present business conditions. They devised it—tested it with 300 dealers in seven states—and proved it successful.

NO DISTRIBUTORS

Fifty-three distributors in every section of the country have been dropped as the plan has no place for the waste methods of the old manufacturer-to-jobber-to-dealer policy.

DIRECT FROM THE FACTORY

Hereafter Superheterodynes by Silver-Marshall will be handled directly from the factory to the dealer. The distributor's "third profit" has been entirely eliminated as well as the excessive costs of traveling representatives.

MORE DEALER PROFIT

The whole system has been devised on a plan that eliminates every old-fashioned waste and gives the dealer an unequalled plus-profit proposition.

"SELLING" PRICES

S-M Superheterodynes are priced so as to make them literally walk right out of your store.

PENTODE VARIO-MU SUPERHETS

Every dealer is familiar with Silver-Marshall's engineering record—first with important developments *eleven times* in the last eight years. The new Superheterodynes uphold that tradition. They have every sales feature of the year including cabinets second to none.

EVERYTHING THAT S-M MAKES

In addition to the regular line every dealer has available the same profitable set-up on the Silver-Marshall "parts" line—superheterodyne chassis, all-wave supers, short-wave sets, converters, auto-sets, speakers, amplifiers, test equipment, replacement parts, and one hundred and forty other parts and sets.

FREE MERCHANDISING BOOK

There is so much to the plan that it cannot be told except in the form of a book. The book is big—not only in size but because it offers the biggest opportunity to dealers since radio's beginning. It is yours for the asking. No strings. No obligation. Sign the coupon and mail it today. Be the first in your community to judge the merits of this system.



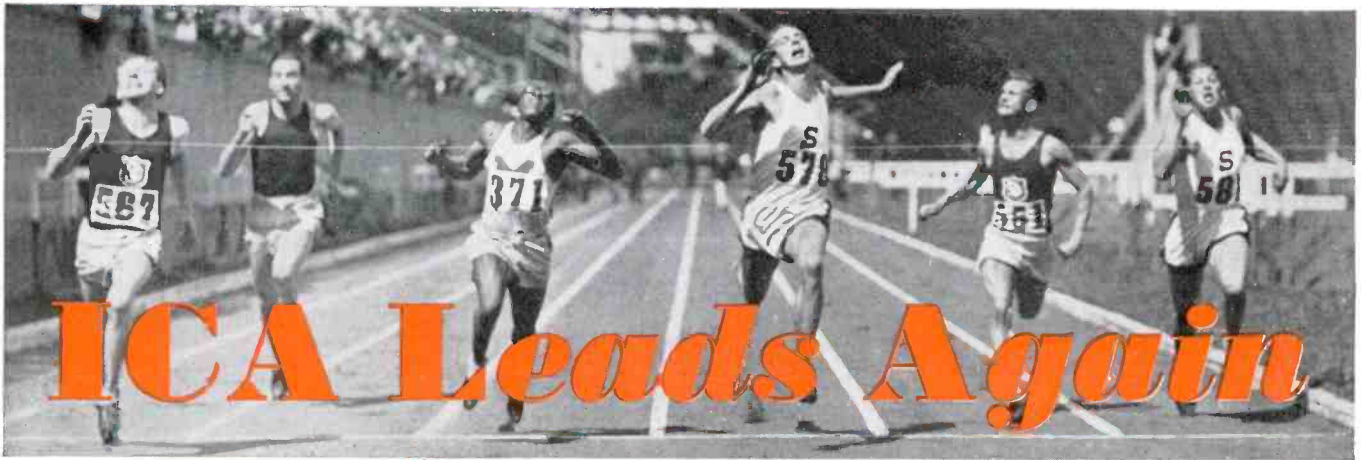
Take this Book
FREE

SILVER-MARSHALL, Inc.
6421 W. 65th St., Chicago, U. S. A.
Send me my copy of the Merchandising Book with complete information on the S-M System.

Name

Address

Superheterodyne
by **SILVER-MARSHALL**



"The Envoy"



"The Conqueror"



"The Companion"

ICA presents the "Envoy"—Aristocrat of Radio Receivers. Not "just another midget," but a Better Radio. Both AC and DC Models employ the Pentode and Variable Mu-Screen Grid tubes affording added tone fidelity, sharper tuning and preventing cross talk between stations at same wave lengths. Ranges from 200-600 m. with models available to 2000 m. "ICA Tone Control" and phonograph switch and jack for any photograph pick up are standard equipment. Beautiful American Walnut cabinet 18 in. high x 15 in. x 9 in.—net wt. 28 lbs.

TUBES FOR AC MODEL

- 100-125v. and 220v.—50-60 cycles
- 1 Pentode Tube Power Amplifier
- 1 224 Screen Grid Power Detector
- 2 Variable Mu-Screen Grid
- 1 280 Full Wave Rectifier
- List Price 110-125v. 50-60 cycles . . . \$56.00 less tubes
- 220-240v. 50-60 cycles . . . \$57.50 less tubes
- List Price of tubes for AC "Envoy" . . . \$9.70

TUBES FOR DC MODEL

- 105-130v. and 205-240v.
- 3 new type 236 Screen Grid Tubes
- 2 two volt No. 233 Pentode Tubes
- List Price 105-130v. \$56.00. less tubes
- 205-240v. \$57.50. less tubes
- List Price of tubes for DC "Envoy" \$13.75

For the new season we have improved the ICA "Conqueror"—that famous Short Wave and Broadcast Set for AC or Battery Operation 14 to 600 meters! The whole world is your field! Sold complete with Short Wave and Broadcast Coils, 14-600 meters. No special tubes in the AC Conqueror—a 224 Screen grid RF, a 227 AC detector and two 227's and a 245 in the transformer—resistance—transformer audio.

There is not a finer set on the market today at any price! Every part that goes into the "Conqueror" is an ICA Product, built and tested to ICA Standards.

AC or Battery Model List Price \$65.00

Complete with S.W. Coils 14-157 meters less Tubes. Power Pack for AC model—\$34.50.

The ICA "Companion" is another of ICA's exclusive presentations. In the "Companion" we present Individual Reception—a complete, portable, all electric receiver for AC or DC. Just attach a ground, plug into current and you're ready to tune in. Sharp tuning, complete with phones, weighs less than 10 lbs. and is built into a handsome leatherette traveling case 13 in. x 14 in. x 7½ in. The advantages of a set of this type are too numerous to mention.

List Price DC model or AC 110 v. 50-60 cycles, \$25.00 with phones, less tubes.

Look for the ICA Universal Companion at the Show. AC, DC or Battery, all in one. Four tubes, employing 2 screen grid, 238 Pentode and a 237. For Loud Speaker or Phone reception. Battery model needs only 6 v. storage battery and 135 v. B battery.

DON'T MISS IT!

VISIT US AT BOOTH NO. 53 AT THE SHOW AND AT SUITE NO. 524A IN THE HOTEL STEVENS

Don't forget that ICA still leads the field in the manufacturing and development of Radio and Television accessories and parts.

Write for our free catalogue which completely describes our entire selection of radio receivers for short wave and broadcast bands, radio accessories and Television transmitters, Receivers and parts.

TELEVISION!
 For years ICA has been a pioneer in the development of Television sets and parts. Today we have a complete line of the very latest models of Television equipment. Be sure to visit ICA's Television Demonstrations while you are at the Show.

INSULINE

CORPORATION OF AMERICA

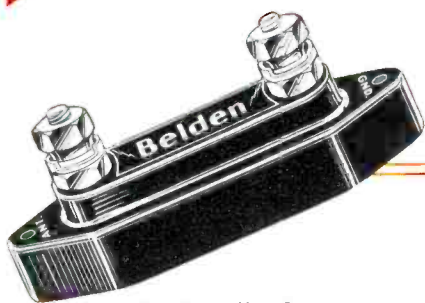
23-25 PARK PLACE . . NEW YORK, N. Y., U. S. A.



Belden Aerial Kits

for Outdoor and Indoor Service

Wide Range of Combinations
and Prices



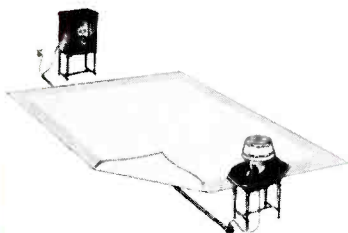
**A 25c Bakelite Arrester
with \$100 Guarantee**

The Belden Lightning Buster is a new, fast-selling item. Gives complete protection. Backed with \$100 guarantee.



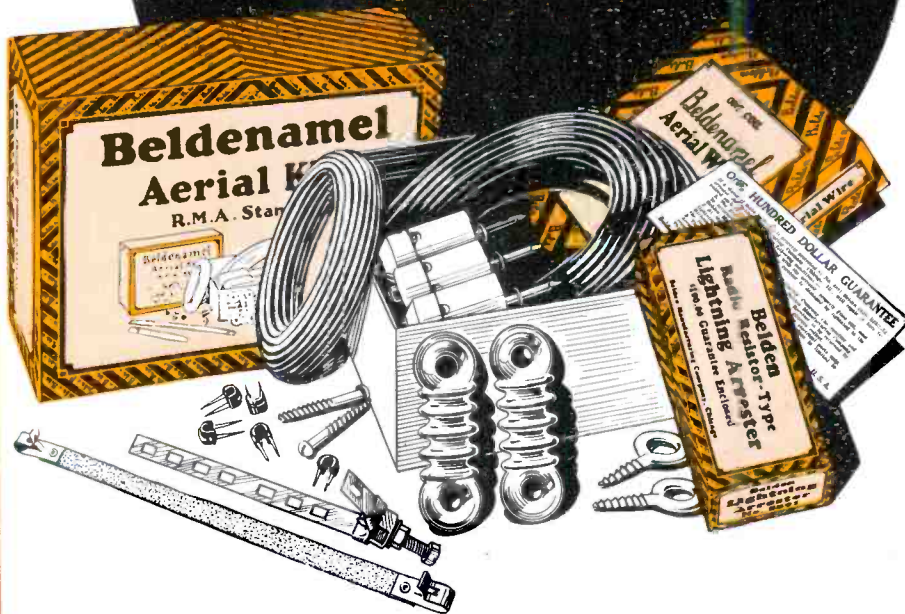
**Belden Shielded
Lead-in Wire Solves the
Interference Problem**

Use Belden Shielded Wire for lead-in. The braided copper shielding helps exclude noisy disturbance.



**Portable Outlets
for Convenient Installation**

The Portable Outlet makes it possible in demonstrating to put the set wherever the customer wants it. It usually stays with the installation, and increases your profit.



THERE'S a Belden Aerial Kit for every type of aerial installation. In distinctive Belden Cartons there are kits for every price class. Only materials of Standard Belden Quality are included. For satisfactory performance — and for profit — sell a Belden Kit with every set.

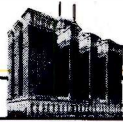
Investigate the other items in the complete Belden Radio Accessory Line. Belden Shielded Lead-in and Ground Wire, Aerial Wire, Lightning Arresters, Extension Cords, etc., are of the highest quality. They give satisfactory service and are attractively priced. They are nationally advertised. Sold through a strict jobber, dealer policy, they insure substantial profits.

Write today for bulletins describing the Belden Shielded Lead-in Wire and the Belden Complete Line of radio products.

Belden Manufacturing Co., 4667 W. Van Buren St., Chicago, Illinois

Belden

Quality — Aerial Kits and Radio Accessories



What's the BIGGER IDEA?

Up and at it long before the radio itself, Adler-Royal Cabinets have been intimately identified with every new development in the sound-producing field. After organs and pianos came phonographs . . . then radios . . . then a combination of both . . . and now television wheels around the corner with the confidence of youth on roller skates.

What with the unlimited application of electrical energy, The Big Idea of today is supplanted by The *Bigger* Idea of tomorrow.

In any event and for whatever purpose, Adler-Royal is old enough to offer the sound advice that comes from experience and young enough to immediately adapt itself with ingenuity and engineering nicety to any new requirement in cabinet construction.

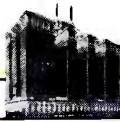
Realizing, of course, that *plus* structural precision, irresistible beauty of design is today the most important factor in making sales. Let's talk it over.

ADLER MANUFACTURING CO., *Incorporated*, LOUISVILLE

ADLER-ROYAL CABINETS

. . . . *A few of the nationally-known manufacturers with whom we have collaborated:*

ATWATER KENT . . . FADA . . . COLONIAL RADIO . . . COLIN
B. KENNEDY . . . NATIONAL CARBON . . . EDISON-GENERAL
ELECTRIC . . . J. C. PENNEY . . . SEARS-ROEBUCK . . . MAGNAVOX



A permanent magnet dynamic



Jensen research scores again! The new Jensen PM-1 marks the most important advance in the radio industry since the introduction of the Jensen Electro-Dynamic. Its tone quality is electro-dynamic, yet it requires no field coil or separate power supply. It is particularly designed for use with battery operated sets and for hotel room and apartment installations. It is unusually compact and light in weight.

Jensen

NEW MODEL SPEAKERS

BIG in performance—compact in size. The new Jensen Model J-1, Concert Jr. Electro Dynamic Speaker, with 6-inch diameter (overall) cone, is designed to meet the latest requirements in set design. Its appearance is an absolute innovation in Electro-Dynamic Speaker Design. All connections completely enclosed. Actually hear this new speaker to convince yourself of its superiority over any other unit of comparable size. All of the new Jensen Speakers will be on display and demonstrated at the R. M. A. Trade Show, Stevens Hotel, Chicago. Literature mailed on request.

JENSEN RADIO MANUFACTURING COMPANY
6601 S. Laramie Ave., Chicago, Illinois



A new electro-dynamic

William C. Grunow and Associates

Confirming previous statements, it is with pleasure that I announce my resumption of active operations with a complete line of New Art Radio, Television, Automatic Phonograph and Radio Combinations, also, popular priced Electric Refrigeration. ☞ Distributor Appointments will be announced shortly.



Wm. C. Grunow & Associates

Suite 563
221 North LaSalle Street
Chicago, Ill.



GULBRANSEN

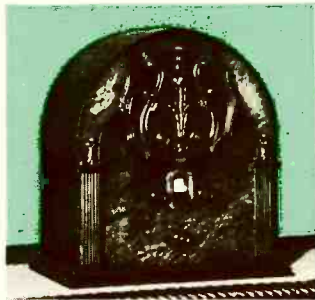
Superheterodynes
without the "service headache"

*Visit Booth B-44—Room 1000
R.M.A. Trade Show—Stevens Hotel*

New Gulbransen Superheterodyne Model 235—10-tube (four '35 Vari-mu, two '47 Pentode in push-pull). Compensating Dynamic Speaker, Tuning meter (simplified distance tuning) Automatic and Manual Volume Control, Full-floating Variable Condensers, Power Switch. No "blasting," no fading, no cross-talk. Price, less tubes, \$97.50

*Most "service calls" start in the
production line . . .*

GULBRANSEN STOPS 99% OF THEM THERE!



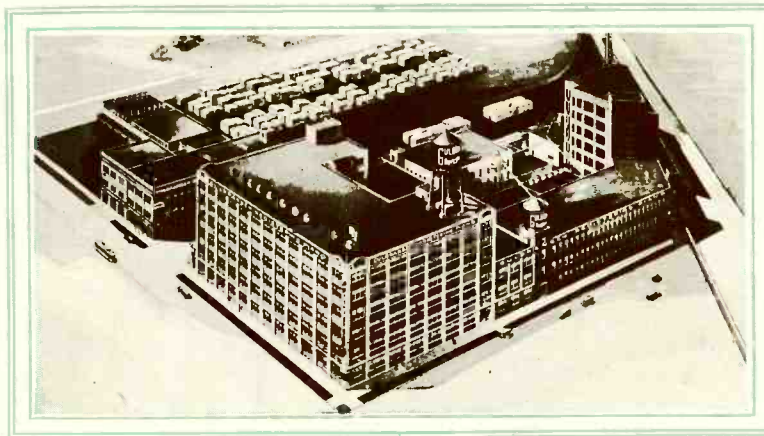
MANTEL RECEIVER
Model 130

Seven-tube Superheterodyne (two '35 Vari-mus, one '47 Pentode). 10 kilocycle separation. Large size insures excellent tone. Finest cabinet work. Price, less tubes, \$58.00.



CONSOLE RECEIVER
Model 135

Seven-tube Superheterodyne, same chassis as Model 130, in beautifully designed cabinet, 40" high. 2 to 4 micro-volt sensitivity (per meter). No tube noises or cross-talk. Price, less tubes, \$68.00.



GULBRANSEN Superheterodynes for 1931, offer what is, without doubt, one of the most thoroughly engineered lines of radio receivers in the history of the industry. Old "super-het" bugbears are banished. The full value of the new Vari-mu and Pentode tubes is capitalized. Tonal characteristics are astonishingly pure.

Twenty-five years of musical instrument experience guarantees Gulbransen Radio performance. The full resources of this \$5,000,000 organization, producing Gulbransen Radio receivers complete, assure absolute control of quality.

Gulbransen engineers, recognizing that every service call costs the dealer part of his honest profit, and weakens the good-will of the customer, deliberately set out to produce radio receivers which would "stay put" without giving dealer and jobber a "service headache."

Scores of letters from jobbers and dealers demonstrate that in building Gulbransen Receivers the "service call" has been largely stopped *at the source*—which is the Gulbransen production line.

Why not write or wire for facts on this unique franchise NOW?

GULBRANSEN COMPANY

Factory and General Offices: 3232 West Chicago Avenue

CHICAGO, ILLINOIS

GULBRANSEN

Radio

A COMPLETE LINE of SUPER-HETERODYNES



The latest Model 71 radio and phonograph combination with electric motor pick-up and automatic stop. Radio equipment same as Model 60.

CARDINAL radio and combination models include Model 60, 9-tube, dimensions 17"x15"x10 1/2", shipping weight 40 lbs. Model 66, 6-tube, dimensions 17"x15"x10 1/2", shipping weight 32 lbs. Model 82, 5-tube, T. R. F., dimensions 13 1/2"x10 1/2"x7 1/2", shipping weight 21 lbs. Model 71, 9-tube, combination, dimensions 19 1/2"x17"x11 1/2", shipping weight 55 lbs. Model 72, 6-tube, dimensions 19 1/2"x17 1/2"x11 1/2", shipping weight 50 lbs. All models are super-heterodyne with exception of the 82. All models 110 or 220 volt, A-C, 50 cycle and used with PENTODE and VARIABLE-MU tubes. Individual private brand chassis furnished.

Maximum distributor discounts. Letter of credit makes possible low wholesale prices of Cardinal products. Licensed under R. C. A. patents.

Cardinal builds three different compact radio models and two phonograph combinations used throughout the world. Owners, critical of their radio equipment, have selected Cardinal because of its compactness, beauty, tone and wide range of selectivity.

CARDINAL RADIO MANUFACTURING CO.
2812 So. Main St. Los Angeles, Calif.
Cable address: Cardradco

THE NEW EMC SIMPLICITY TEST PROBE PRECISION MADE



The EMC "Simplicity Test Probe" for Service Men and Dealers fills a long-felt need for a fast and efficient testing device of vest-pocket size. Also, it is the lowest priced testing instrument of real value and quality on the market.

In receiving sets most defects are due to causes of standard nature, which the Simplicity Test Probe locates at a great saving of time and money. Given below are ten of the things it will do without disturbing a single set connection, and which are of great value to you.

1. Locates open or shorted by-pass and filter condensers.
2. Locates burned-out resistors and wiring.
3. Checks presence of filament or heater voltage.
4. Tests continuity of all low resistance windings.
5. Checks correctness of tuning coil polarity.
6. Tests for breaks in tuning-coil windings.
7. Checks shorts in variable tuning condensers.
8. Gives visual resonance indication in aligning condensers.
9. Tests for high voltage and low current with neon tube.
10. Makes a very handy radio or automobile trouble light.

The EMC Simplicity Test Probe is made of a polished red and black dielectric material, neatly engraved in gold, and looks very attractive and professional. It is a real quality product built for a lifetime of service. The size is 7/16 in. x 7 in. The Simplicity Test Probe is \$4.50 net to Service Men and Dealers, is guaranteed, and comes with standard lamp, eighteen inch cord, test clip and complete instructions.

Electrical Manufacturing Corporation
BOSTON, MASS.

If your distributor is unable to supply you order direct.

.....
ELECTRICAL APPARATUS SALES CO. RR1
10 High St., Boston, Mass. Sole Agents.
I enclose herewith \$4.50 for which you are to send me, postpaid, one EMC Simplicity Test Probe complete.
Name
Address
City State

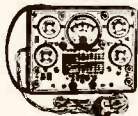
Tape Measure or Micrometer?



A good mechanic does not use a tape measure.

He uses a micrometer—an instrument upon which he can depend for accuracy. The tape measure might furnish an idea of size but when accurate measurement is essential he would employ a micrometer.

In the work of testing and servicing Radio sets the instruments employed must possess unerring accuracy. You cannot employ tape line instruments, they must be of micrometer accuracy. There should not be any room for doubt on the part of the service man when he is in contact with the customer's receiver. The tests must reflect exactly the condition of the set.



DAYRAD RADIO SERVICE INSTRUMENTS ARE RECOGNIZED AS STANDARD

Because they have stood the test of time. Built-in accuracy and quality are features of every Dayrad Tube Checker, Analyzer, Oscillator, Test Panel, Voltmeter, Ohmmeter, Output Meter or other instrument although they are sold for less than other instruments, which might be considered competitive in quality.

SEE THESE SERVICE INSTRUMENTS AT STEVENS HOTEL, CHICAGO, WEEK OF JUNE 8TH, Booth No. B 57.

Or if you are not going to the Radio Show send for Catalog which describes and illustrates these various instruments.

THE RADIO PRODUCTS COMPANY

5th and Norwood Dept. R Dayton, Ohio, U. S. A.



Compare the
ERGON PENTODE
to any other on the market!

BY actual test of comparison Ergon tubes are known to stand out head and shoulders above any tube on the market and now the new Ergon Pentode passes the same tests.

The substantial mechanical construction of the Ergon Pentode insures uniformity and freedom from trouble in the field.

The Ergon 551 Variable Mu tube is also making a name for itself due to its great efficiency and uniformity.

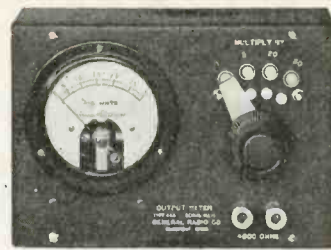
Ergon tubes pass the most stringent specifications—more stringent and rigid than those of most tube manufacturers. This results in highest efficiency, greater uniformity, longer life and greater freedom from trouble in the field. Along with the quality goes an attractive proposition for the manufacturer of sets, the distributor and the dealer.

Claims are one thing; performance is another. We invite you to compare the Ergon tube to any tube on the market for standard equipment or resale—write us today.

ERGON ELECTRIC CORPORATION
20 Bergen Street, Brooklyn, N. Y.
Chicago Show Headquarters

(Room 612) 77 West Washington St. in charge of
Mr. Clyde Tracy, Telephone Randolph 9179

ERGON
THE QUALITY TUBE



Type 486 Output Meter—\$38.00

AN OUTPUT METER

A method of measuring the power delivered is often invaluable when servicing receivers and public-address amplifiers. The General Radio output meter is the ideal instrument for the purpose.

It is, in effect, an oxide-rectifier voltmeter which always presents a constant impedance of 4000 ohms to the circuit across which it is connected. Since the voltmeter has ranges of 0-3, 0-15, 0-60, 0-150 volts, a maximum of 5.6 watts may be measured.

Write for literature. A copy of Bulletin 933-R1 is yours for the asking.

GENERAL RADIO COMPANY
OFFICES—LABORATORIES—FACTORY
CAMBRIDGE A, MASSACHUSETTS
Pacific Coast Warehouse: 274 Brannan St., San Francisco

The New Kato Konverter

With GREATER Capacity and less Current Drain for 32 and 110 Volts Direct Current Lighting Plants.

Now Only \$49.50.

Creates more sales for ALL-

ELECTRIC A.C. RADIO

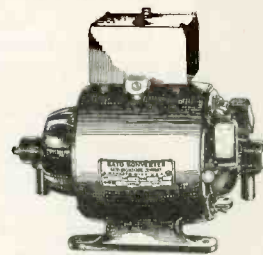
Sold on trial basis.

Ask about the Kato A. C. Electric Plants for Sound Trucks.

Dept. R

Kato Engineering Co.

Mankato, Minn.

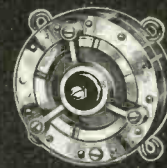


Order from your Jobber or write to Department R

ELLIS MICROPHONES

Nationally known for their sensitivity combined with high quality, these beautiful instruments are famous for their performance in Broadcasting, Public Address and Recording. New catalog sheet just out. Write at once.

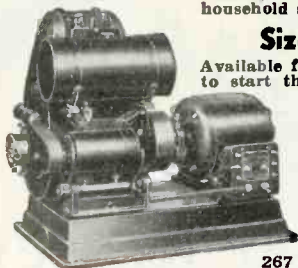
Export "Simons" 25 Warren St., New York. Cable: "Simontrice."



ELLIS ELECTRICAL LABORATORY
Sole Corporation
337 WEST MADISON ST. CHICAGO, ILLINOIS

A. C. Electric Plants

ONAN ALTERNATING CURRENT ELECTRIC PLANTS furnish the same current as city service—110 volt, 60 cycle, A. C. Operate Radios, Water Systems, Refrigerators, all household appliances.



Sizes 500 to 2000 Watts

Available from stock. No battery used except to start the engine. Ideal for places remote from electric service, for standby equipment, sound amplification, etc.

Also a complete line of D. C. models, 350 to 1,500 watts.

Some Dealer's Territory Available

D. W. ONAN & SONS

267 Royalston Ave., Minneapolis, Minn.

Official [\$3.50 List Price] Radio Service Manual FREE

and complete Directory of all Commercial Wiring Diagrams

To Dealers and Servicemen with our Special Introductory Deal on

LYNCH METALLIZED RESISTORS

USING NEW "K" FILAMENT

Write today for details of this Unusual LIMITED offer

Lynch Mfg. Co., Inc.
Dept. R, 1775 Broadway, N. Y.

(352 pages—9x12-in.)



1/2, 1, 2 and 3 Watts Pigtail and Cartridge Types



Precision Wire Wound Pigtail and Cartridge Types



No. 10—Midget Model Universal Cover now \$2. (\$2.50 Colorado and West) Shipped parcels post, C.O.D. postage paid. On open account if you have an account with us.

WEATHERPROOF CARRYING CASE for all Midget Radios

Now \$2

The Universal Midget Cover is adjustable to all table type radios. Only one strap to fasten, forming a convenient carrying handle. Made of strong, weather-proof brown drill, padded with thick layer of high grade comfort cotton—*guaranteed not to separate unless actually torn.*

MAISH BEDDING CO.
1501 Freeman Ave., Cincinnati, O.



One Permo-Point Phono Needle makes an automatic phonograph—Automatic—for more than 2000 plays.

This special phonograph needle is used and endorsed as standard equipment by leading manufacturers of automatic record-changing phonographs, portables, and radio phonograph combinations.

Permo Products Corporation
3623 Montrose Ave., Chicago, Ill.

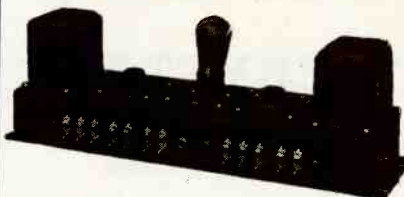
AMERTRAN POWER AMPLIFIERS and ASSOCIATED EQUIPMENT

For installation in restaurants, clubs, dance halls, schools, and wherever exceptional fidelity of reproduction at high volume is desired.



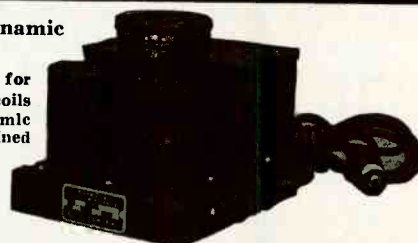
Type PA Series 80

Type A-88 Master Control and Input Amplifier. This unit will select between 200- and 500-ohm input sources and control volume. It also contains a one-stage pre-amplifier.



Type P-101 Dynamic Field Supply.

Filtered d.c. current for energizing the field coils of one or two dynamic speakers may be obtained from this compact unit. It operates from 110-volt, 60-cycle circuits.



Type A-89 Input Amplifier. This two-stage, transformer-coupled amplifier is utilized in raising low-level input signals to values sufficient for operating the main amplifier. Two 227-type tubes are required.

Type P-78 "A" Supply Unit. All AmerTran input amplifiers are d.c. operated and this unit has been designed to provide filtered filament current. It operates on 110-volt, 60-cycle lighting circuits.



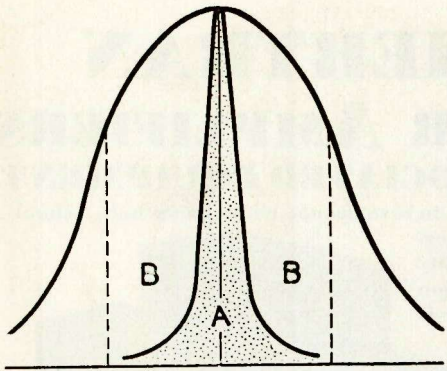
AMERICAN TRANSFORMER COMPANY
178 Emmet Street, Newark, N. J.

Gentlemen: Send me bulletin 1000B with complete information on AmerTran power amplifiers and audio parts.

Name

Street and No.

City State



Inner curve shows Stenode's selectivity, outer curve that of ordinary receiver. Lines BB are 5 k. c. distant from Line A. All background noise, included in the light portion between A and BB is eliminated by the Stenode.

STENODE TUBES

Until the American Tube Manufacturers licensed by the Stenode Corporation of America are in sufficient production, we can supply the rapidly growing demand of laboratories and serious investigators for:

QUARTZ CRYSTALS

Suitably Mounted in Tube Form To Fit Standard Tube Sockets

These crystals are all approved by our own laboratory after actual tests in a standard Stenode developed under the patents of Dr. James A. Robinson, M.B.E., D.Sc., Ph.D., M.I.E.E., F. Inst. P., and former Chief of Wireless Research, British Royal Air Force, by the engineers of the Stenode Corporation of America.

All crystals are ground to respond to a frequency of 175 kilocycles, which is the frequency accepted as standard in all modern superheterodynes, and are mounted in vacuum tube form.

STENODE TUBES (Standard UX Socket Base) **PRICE \$15.00**

"If it isn't a STENODE it isn't a modern receiver."

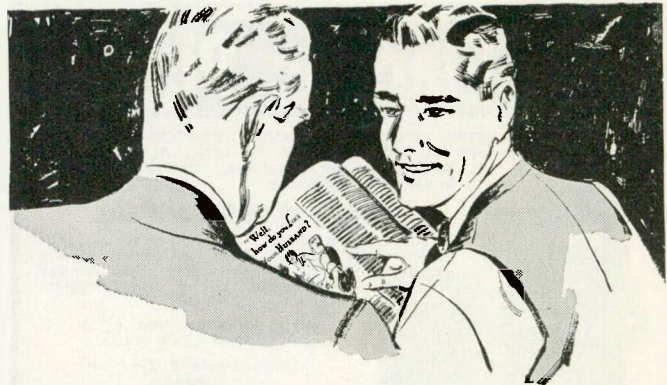
Stenode Corp. of America

(Formerly American Radiostat Corp.)

Hempstead Gardens, Long Island, N. Y.

STENODE CORP. OF AMERICA
Hempstead Gardens, Long Island, N. Y.
Enclosed find Personal Check, P. O. or Express Money Order
for which please forward me.....Stenode Tubes.
(state number)

NAME.....
STREET.....
CITY.....STATE.....



"No Wonder Kester SELLS

Look at the Way They Advertise!"

Kester has a whale of a good story to tell — and they don't skimp on the telling! A line-up of 31 national magazines that go into over 16 millions of homes is used. Actually over 64,000,000 Kester advertisements are appearing this year in these magazines.

Kester makes soldering easy . . . for everybody. Amateurs are able to turn out professional work. Result . . . people are saving repair bills these days by doing their own soldering. And dealers who carry Kester have a fine source of easy and steady profit!

There's Kester Metal Mender for general soldering, and Kester Radio Solder for radio and electrical work. Both come in small packages in attractive counter cartons and Kester Solder on larger spools

for the bigger users. Give them a good display and they'll give you good profits! Get in touch with your jobber now. Start solder sales climbing!

Here's the Complete Kester Line

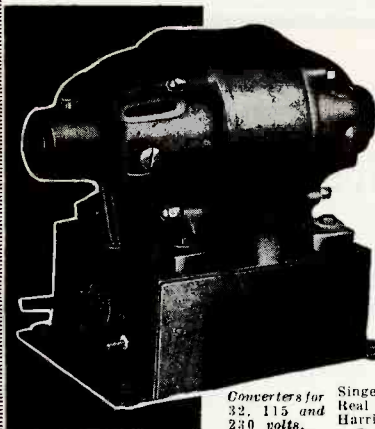
Kester Acid-Core Solder—for general home repair use. Small Metal Mender package, 1, 5, or 20 lb. spools.

Kester Rosin-Core Solder—used principally for electrical and radio work. Small Radio Solder Package, and 1, 5, or 20 lb. spools.

Also Kester Paste-Core Solder, Body Solder, Bar Solder and Solid Wire Solder for home and industrial uses.

KESTER SOLDER COMPANY
4262 Wrightwood Avenue Chicago, Illinois
Incorporated 1899

KESTER
FLUX-CORE
SOLDER
Acid-Core Paste-Core Rosin-Core



**Every D.C. Home
Now an A.C. Radio
Prospect**

Janette Rotary Converters, with their surprisingly low prices and the perfect reception they make possible, help you sell A.C. radios in all kinds of homes—from the modest dwelling to the mansion. Now you can sell *more* radios—and make a handsome *extra* profit on the converter.

Write for Bulletin 431-R.
JANETTE MFG. CO.
555 West Monroe St.,
Chicago

Converters for Singer Bldg., 149 Broadway, New York.
32, 115 and Real Estate Trust Bldg., Philadelphia.
230 volts, Harrison Sales Co., 314 Ninth Ave., N.,
D. C. Seattle, Wash.

**YOUR STOCK
is incomplete
WITHOUT**

**STA-PUT
TAPE AERIAL**

Modern and Convenient Aerial
for Indoor Installation

CONSOLIDATED
CORPORATIONS

**The Fastest Selling
Antenna in RADIO HISTORY**

At last—a real profit maker and sales stimulator. Just the thing to “pep” up your aerial business. STA-PUT TAPE AERIAL sells on sight because it can be strung in a few minutes without tacks or brads and can be changed or removed without leaving a mark to show where it was. Backed by national advertising, everybody will be asking for STA-PUT.

Act Now—Send for Prices and
Discounts Today

THIS SEAL GIVES 100% PROTECTION

All wire coiled under this seal (CWAC) assures you full measure—exact size—perfect quality and 100% satisfaction.

This policy of sealing its wire is another step forward by CONSOLIDATED in giving its customers full value.

Send today for our special offer to jobbers.



**CONSOLIDATED
WIRE AND
ASSOCIATED
CORPORATIONS**

512 S. Peoria Street, Chicago

America's Antenna Headquarters

See us at the SHOW: Booth No. 12, Main Exhibition Hall,
or Room 2207-A, Stevens Hotel

CORWICO

**IT'S NEW!
THE VISIBLE
VULCAN**

LIGHTNING ARRESTER

PATENTS
PENDING

85c.
LIST

**MADE OF CRYSTAL CLEAR
GLASS**

Here's a brand new idea in Lightning Arresters. Made of crystal clear glass, this new Visible Vulcan Arrester has the eye appeal that leads to sales. On your counter or in your window this item attracts instant attention. Here's the big feature of the Visible Vulcan Arrester—a “short” can be easily detected—no more blind spots in the antenna circuit. Costs less than old style arresters.

The Visible Vulcan Arrester is manufactured under a new process and engineering principle. It not only protects the radio against lightning damage but also dissipates accumulative static charges. Backed by \$100.00 guarantee.

Enclosed in an attractive three color box. Packed ten to a three color counter display carton. Order a trial carton today.

*If Your Jobber Cannot
Supply You—Order Direct*

Write for catalog and prices of the complete line of Corwico Radio Wires and Antenna Accessories.

**CORNISH
WIRE CO., INC.**
30 Church St., New York

**MAKERS OF
CORWICO BRAIDITE HOOK UP WIRE**

"GOLD TEST" Products



Used Wherever
RADIO IS
Known!

**AERIALS and
REPLACEMENT PARTS**
WITH A
WORLD WIDE REPUTATION



Since their introduction to the radio field several years ago Wellston Gold Test Products have attained a popularity that is indeed phenomenal. And this popularity is well deserved because the manufacturers of Gold Test Products are the creators of high-grade, tested merchandise offered at extremely low prices by leading radio dealers everywhere.

THE GOLD TEST AERIAL

The shell of the new, improved Gold Test aerial is constructed of genuine Durez—an attractive and durable substance. This new aerial follows closely upon the success attained by the original Gold Test Aerial which at present is giving satisfactory service to thousands of radio owners throughout the world. Although small enough to fit in the palm of your hand, it has a capacity equivalent to 54 ft. of aerial wire strung 50 ft. high in the air. It does away with both outside and inside aerials, aids selectivity, reduces electrical interference, does away with lightning hazards and, because it does not connect in a light socket all A. C. hum and line noise is eliminated. It can be installed in or on the back of the radio cabinet. Retail Price, \$2.50.

NOTICE—Dealers and Servicemen!

Write *immediately* for our complete Reference Catalog No. 12 on Condensers, Transformers, and Resistances, etc. Astonishing **LOW** prices on all replacement parts and other specialties.

GOLD TEST REPLACEMENT PARTS

Gold Test Replacement Parts, designed to allow the largest amount of safety in the space allowed, are manufactured to duplicate the original parts as to hook-up and external size. All parts used in assembling Gold Test Replacements are manufactured and tested in our factory. No salvaged or surplus parts are used—only the best of new material is utilized in the construction of Transformers, Condensers, Resistances, etc. All Gold Test Replacement Parts are fully guaranteed.



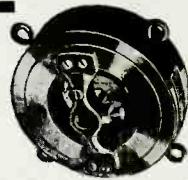
GOLD TEST PRODUCTS

ARE SOLD BY LEADING
RADIO DEALERS EVERYWHERE

Manufactured by the

WELLSTON RADIO CORPORATION
ST. LOUIS, MO.

BETTER MICROPHONES for Every Need . . .



Model "KK"

For both voice and music. A rugged, two-button microphone, using a 24-karat pure gold spot center alloy diaphragm, .002 in. thick. Frequency range from 35 to 6000 cycles. Buttons of 200 ohms resistance each.

12 types—
Also mountings,
stands, transform-
ers, cables, etc.



Soft aluminum pregrooved blank records for instantaneous home recording. Double faced. Give Volume, Brilliance, Durability.

"Handi Mike"

Available in both single-button and two-button types. Especially preferred for home recording. Assures maximum volume and minimum hiss. An exceptionally clear hand microphone of unusually rugged construction.

Liberal Discount To Dealers

UNIVERSAL MICROPHONE CO., Ltd.
1163 Hyde Park Blvd., INGLEWOOD, CALIF., U.S.A.

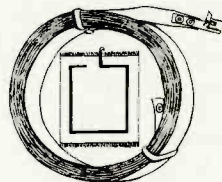
"The Magic Rug" ANTENNA

List
75 cents

of Pure Copper Ribbon

IT'S NEW!
Easily Installed
Out of Sight

Special Dealer's price \$2.70 for
Six packed in display carton.



RADIO ACCESSORIES CO.

4354 Warne Ave.

St. Louis, Mo.

WASMUTH - GOODRICH COMPANY



Fine Radio Cabinets
fashioned by
Master Craftsmen

103 Park Ave., New York
Peru, Indiana

**Do You Sell,
Install or Service
CENTRALIZED RADIO
AND PUBLIC ADDRESS
SYSTEMS ?**

“Radio Retailing” wants to find out how many dealers are selling, installing or servicing public address and centralized radio systems. If you do work of this kind, will you be good enough to register with us by filling in and returning to us the coupon below. You will be sent, from time to time, special information on centralized radio, public address systems and other sound amplifier applications.

Thank you!

Cut out and send to Radio Retailing

To MARKET ANALYSIS DEPT.,
Radio Retailing,
475 Tenth Ave., New York, N. Y.

We install and service centralized radio and public address systems
(Check if you do).
In 1930 our sales of these systems installed about \$
Our major line of business is
Name of company
Name of Owner or Manager
Street Address
City State

**Announcing
the new
E-Z-WAY
Soldering Compounds
Send for particulars
Service Men!**

Get your Replacement
Transformers, Condensers
and Resistances from

M A Y O
“They’re Guaranteed”

Send for New 32 page Catalogue

MAYO LABORATORIES, INC.
281 East 137th Street, New York, N. Y.

**New Sales Ideas
For Sale At
8 Cents a Month!**

Yes, *Radio Retailing*, published monthly, serves its many readers with dozens of practical sales plans, service kinks, window displays, collection and accounting plans and many other workable ideas at a cost of only 8 cents a month. One dollar a year.

This introductory offer is for cash with your order only. The regular price of *Radio Retailing* is \$2 a year. If you already subscribe to *Radio Retailing* send in your \$1 and have your present subscription extended at the reduced price.

FILL IN THE ORDER BLANK AND MAIL IT TODAY
Cash must accompany order for half price rate.

RADIO RETAILING R. R. 0
475 Tenth Ave., New York, N. Y.
Attached is \$1. Enter my order for Radio Retailing for one year
Extend my present subscription for one year
Name
Street
City State
Company Position
For Foreign Postage add \$1 extra a year.

SEARCHLIGHT SECTION

EMPLOYMENT and BUSINESS OPPORTUNITIES—SURPLUS STOCKS—DISCONTINUED MODELS

POSITIONS WANTED

YOUNG man, 23, Protestant, born and raised in England, would like position with an American radio firm in England. Has been in America eight years; salesman for five years; excellent character. PW-145, Radio Retailing, Tenth Ave. at 36th St., New York.

RADIO department manager, now employed, desires to make change. Capable taking charge sales, service and repairs. Excellent references. PW-146, Radio Retailing, Bell Telephone Bldg., St. Louis, Mo.

Due to extension of sales activities we have a limited number of opportunities open for manufacturers' representatives,

preferably those in a position to carry stock and make direct shipments to dealers and jobbers. We would be interested in hearing from aggressive concerns. In replying, please state territory covered, number of men travel, and other lines now being handled.

Perryman Electric Co., Inc.

North Bergen, New Jersey

or Suite 619-20 Stevens Hotel, Chicago, Illinois, June 8th to 12th.

RADIO SALES REPRESENTATIVES

An entirely new sales policy has been inaugurated by one of America's oldest and finest manufacturers of radio, upon which millions have been expended for advertising.

The new plan embraces a complete new feature line of five models, each a sensation in its class. The line, together with a high-profit basis and outstanding selling features offer exceptional merchandising possibilities to leading merchants throughout the country.

A rare money-making opportunity is offered several radio sales representatives of proven ability whose contacts are with live and capable merchandisers of radio in the retail field. The line and the plan is worthy of exclusive effort on the part of such men. Choice territory is open. Appointments are being made now for the Chicago Show at which time interviews will be made and entire set up presented. Write, giving complete details of your qualifications, territory and some larger accounts sold.

SW-143, Radio Retailing
520 No. Michigan Ave., Chicago, Ill.

Now . . . SELL

Talkie Sound-on-Film

To Theatres, Schools,
Churches, Clubs

Write for manufacturers' prices on Soundheads, Photocells, Optical Systems, Rectifiers, Amplifiers, Horns, Faders, Synchronous Motors, Projectors, Lamp-houses, Screens, Microphones, etc.

Dept. RR—S.O.S. CORP.
1600 Broadway, New York City
Cable Address "SOSOUND"

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.

REPRESENTATION

Organization contacting Jobbers, Department and Chain Stores desires to represent reputable manufacturer in New York City and surrounding territory. Give full details.

RA-147, Radio Retailing
Tenth Ave. at 36th St., New York City

EUROPEAN MARKET COVERAGE

Importer of American radio equipment in Paris wishes to make connection with manufacturers of:

5-8 tube Midget Chassis

7-9 tube Superheterodyne

(phono. connection)

Pickups, Turntables

Tubes

Dynamic Speakers

Escutcheons

Amplifiers

and other electronic components

Manufacturers without European representation preferred.

The manager of this organization will be in the United States early in June.

Address

RA-144, Radio Retailing
Tenth Ave. at 36th St., New York City

WANTED

For Spot Cash

100 New Radios of Low-boy Type or Larger

Need not be one make

W-142, Radio Retailing
Tenth Ave. at 36th St., New York City

SERVICE

on discontinued models our specialty. 48 hr. service on all chassis. Send us those difficult jobs. Let us be the shop.

HILET ENGINEERING CO.
ORANGE, N. J.

Fast Sellers! Money Makers!

VACUUM CLEANERS

Well known makes Rebuilt—Tested—Guaranteed

For price list see our adot. page 36, May issue this paper or write to

EMPIRE STATE TUBE & ELECTRIC CO.
303 Fourth Ave., New York City
Phone GRamercy 5-6619

Radio Dealers: Radio Service Men!

Try Grant's for Replacements, Transformers, Condensers and Resistors at regular dealers' discounts. Our stock is always complete.

We repair everything in Radio

Estimates gladly furnished

IMPORTANT

Limited supply of an up-to-the-minute catalogue just off the press. Send for one AT ONCE before quantity is depleted.

Grant Radio Laboratories
6521 So. Halsted St., Chicago, Ill.

THOUSANDS OF DEALERS

have been purchasing their requirements from RADIO SCHIER CO. since 1919. Are YOU on OUR mailing list? The LARGEST stock of "replacement parts," sets, tubes, accessories etc., etc., at the very lowest prices obtainable anywhere, is what we have to offer. Write for our bulletin to-day . . . NOW.

Radio Schier Co., 135 Liberty St., N.Y.C.

Our Purchase of 12,000

**Latest 1931
Model**

CROSLY RADIOS

**Screen Grid
Dynamic Speaker**

Offered Subject to Prior Sale



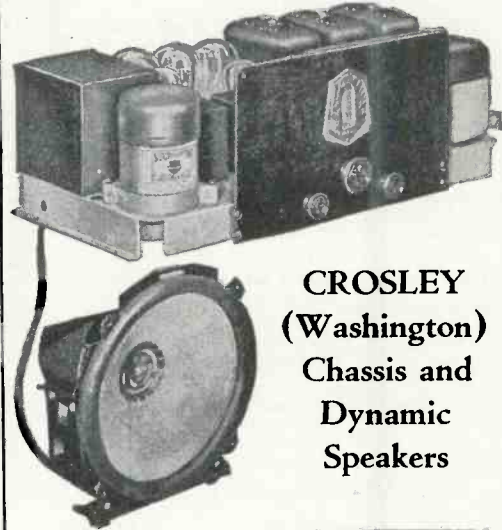
**CROSLY Washington
Model C**

Your Special Price **\$28.50**
less tubes

Here is a cabinet of moderate height, finished in three-ply walnut veneer with inset panel of matched butt walnut. The Five-Tube Chassis and Dynamic Power Speaker (described opposite) is built into this attractive console model.
Size: 42 1/4 in. high, 26 1/2 in. wide, 14 1/2 in. deep.
Set of Speed Tubes.....\$3.52

Equipped with 7-Tube Chassis and Speaker (Described Opposite). **\$31.00**
less tubes
Set of Speed Tubes.....\$4.28

Equipped with 8-Tube Chassis and Speaker (Described Opposite). **\$32.50**
less tubes
Set of Speed Tubes.....\$5.08



**CROSLY
(Washington)
Chassis and
Dynamic
Speakers**

5-Tube Model No. 579

Where a small receiver is required, this is the most popular model. Specially designed screen-grid circuit of three tuned stages, with all parts completely and efficiently shielded. Matched Crosley Dynamic Speaker.
Size: 16 1/2 in. wide, 9 1/2 in. high, 6 1/4 in. deep. Uses Three 224, One 245 and One 280 Tubes.
Set of Speed Tubes.....\$3.52

Your Price **\$19.00**
less tubes

7-Tube Monotrad—No. 309

The Monotrad (309) represents the finest moderately priced radio receiver in the world! Neutrodyne circuit—Triple Range Control—Phonograph Pick-up Connection. Every Modern Feature. Matched Crosley Dynamic Speaker.
Size: 19 1/2 in. wide, 7 in. high, 10 in. deep. Uses two 224, two 227, two 245, one 280 tubes.
Set of Speed Tubes.....\$4.28

Your Price **\$21.50**
less tubes

8-Tube Unitrad—No. 409

The Unitrad (409) is an eight-tube set—utilizing three 224, two 227, two 245, one 280 tubes. Neutrodyne circuit—Triple Range Control—Phonograph Pick-up Connection. Matched Crosley Dynamic Speaker.
Size: 19 1/2 in. wide, 9 in. deep, 6 1/2 in. high.
Set of Speed Tubes.....\$5.08

Your Price **\$23.00**
less tubes

Six-Tube D.C. Model—No. 769

An efficient receiver for D.C. operation. Specially designed screen-grid circuit. Six tubes—three 224 and three 171-A's. All parts thoroughly shielded. Matched Crosley Dynamic Speaker.
Size: 19 1/2 in. wide, 9 1/2 in. deep, 7 in. high.
Set of Speed Tubes.....\$4.08

Your Price **\$23.00**
less tubes

All Brand New in Original Factory Packing—FULLY GUARANTEED. Terms: Net Cash with order or 20% Deposit—Balance C.O.D.

See Mr. Ben Abrams at the Radio Show—Stevens Hotel—for this and other Special Radio Offers.

**CROSLY
Washington
Model A**

This model strikes a bright note in radio furniture. Its design is charming; small but complete. Made of walnut veneer with decorative inlay of golden maple. The Model A utilizes the Five-Tube Chassis and Dynamic Power Speaker described opposite.
Size: 28 1/2 in. high, 26 1/2 in. wide, 15 in. deep.
Set of Speed Tubes, \$3.52



Your Price **\$24.50**
less tubes

**CROSLY
Washington
"Buddy" Model**

The "Buddy" is a popular Crosley Model. This is a console-type radio set supplied in a case of light, durable metal realistically finished in burl walnut effect and decorated in dull metal trim.

The "Buddy" utilizes an A.C. Screen-Grid Neutrodyne receiving instrument of modern radio development. The power speaker, suspended below the set, is the pure-toned electro-magnetic Dynacone.

Size: 24 1/2 in. high, 20 1/2 in. wide, 10 1/2 in. deep. Uses: Two 224, two 171-A, one 227 and one 280 Tubes.
Set of Speed Tubes.....\$3.78

Your Price **\$21.50**
less tubes



MANUFACTURERS SALVAGE CORP.

645 SIXTH AVE. Tel. Watkins 9-4943 New York, N. Y.

Dealers! Compare Airex Prices, Quality, Service!

AIREX New 247 Pentode Push Pull Amplifier Kit



The tremendous power-sensitivity of the new 5-element power pentodes is now available at an exceptionally low price. For Phono, Mike or Radio input. Also supplies five 2½ v. tubes. Eliminates need of first audio stage. AIREX GUARANTEED. Complete with diagrams and instructions.....\$9.45

AIREX Super Power Two-Stage 250 Push Pull Amplifier and "ABC" Power Supply Kit

This big heavy-duty job will deliver the tremendous undistorted, hum-free power output of 12 watts of natural clear-cut speech or music—ample for your largest and finest set or P. A. Installations, Transmitters, etc. Radio, Phono or Mike Input. AIREX GUARANTEED. Complete with full diagrams.....\$15.65

WEBSTER Power Amplifier Type 7202, uses 1—281, 1—236, 1—210..... Our Price \$19.50
Type 7203, uses 1—281, 1—250, Our Price \$8.50
Type 7201, uses 1—281, 1—226, 1—250
Our Price.....\$17.50

AT OUR EXPENSE

Ship us that defective condenser or transformer and get our quotation on its proper replacement—no obligation.



Airex Impregnated Filter Condensers are built to meet the most exacting requirements. Guaranteed one full year.

Working Size	Volts	Price Mfd. age Each
2	800V.	.60
5	1000V.	.35
2	600V.	.50
1	600V.	.30
5	600V.	.25
2	400V.	.40
2	200V.	.20
1	200V.	.18
.5	200V.	.15
.25	200V.	.10
.01	600V.	.03



AIREX Selected Tubes

are made for us of specially selected raw materials on the latest and most efficient production equipment employing the most modern scientific manufacturing processes. They are tested and retested every step of the way to insure acceptance by us under our rigid rejection limits. We GUARANTEE free replacement for three months.

Type UX	Type UX	Type UY
201A @ .35c	230 @ .75c	227 @ .40c
226 @ .40c	231 @ .75c	224 @ .60c
199 @ .50c	232 @ .80c	
UV 199 @ .55c	210 @ 1.30	NEW TUBES
171A @ .50c	250 @ 1.25	235 @ .80c
222 @ 1.00	280 @ .40c	551 @ .90c
245 @ .40c	281 @ 1.25	247 @ .75c

New Mercury Vapor Rectifiers

Type 281 @	\$4.45	Type 886 @	\$4.95
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Hammarlund Equalizing Condenser. Price.....15c ea.

Humbuckers, 15, 20 & 40 ohms. Made by Carter, Frost & Yaxley.....15c

Bradleyohms E-5—750 to 1 Meg. E-10—5 M. to 15 M. Z-253—2 M. to 30 M. Price now 25c each.

Toggle Switches. Approved electric switch.....25c
Single pole double throw.....20c

Airex Universal Audio Transformer. An Ideal Repl. Transf. Free from the defects of cheap transfs. 1½-in. dia. Ratios 3½:1 and 5:1.....60c

Push Pull Input or Push Pull Output 62c

Test Leads. They can quickly be attached to any meter for testing batteries or any electrical apparatus. Price.....40c

Thordarson Transformer fully shielded for use with:
5—224, 227, 235
2—224, 227, 551
2—245 &
1—280 Tubes
B & C. voltages. Size. 3½ x 3½ x 5-in. Price.....\$2.75

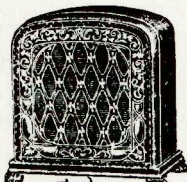
Polymet, Elmenco, Illini Moulded Mica Condensers
.001, .000125, .0001, .00045, .00225, .002
Price, 10c. ea. \$1 doz.

Compensator. Moulded Bakelite Base with Mica separator. A quality neutralizer.....14c

Peerless Condenser. 7 mfd. 600 v. test. Price.....\$1.00

El Menco Resistors. 10 watt 2" long. Tapped 25M and 25M. Total 50,000 ohms. Price.....5c each

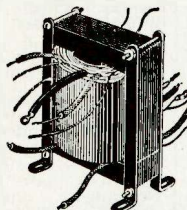
15 V. Sonora RA-1 Tubes. Genuine indirectly heated cathode type replacement tube made by Arc-turus for Sonora, etc. Designed for R. F. A. F. or detector. .45c



Kolster K-6 Magnetic Speaker. Noted for its quality of tone and power. Special...\$4.35



Voltage Dividers With Variable Sliders. 10,000 ohm 4½" long, three sliders...70c
25,000 ohm 5½" long, four sliders 80c
50,000 ohm 6½" long, six sliders 95c



Power Transformer. For 245 push pull. Has electrostatic shield and tapped input. Replacement transformer for sets using 227 or 224, 245 and 280 tubes. Size, 4½x4½x3½ width. Weight, 8 pounds.....\$2.25 (Includes mountings.)



Beede Radio Set Analyzer & Tube Tester. Price.....\$13.75 Tests all AC and DC filament voltages—plate—grid and screen. Line voltages and all other conceivable tests necessary on the modern electric set.



3-Gang Hammarlund Trimmers on Bakelite strip 6½" long. Price.....35c



Splitdorf 1 mfd. 600 volt condenser. Our price...35c



Sprague or Polymet 8 mfd. 450 volt electrolytic condenser. Price...80c each

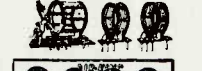
Phono-Link Pickup



An excellent rigidly constructed, finely finished phono pickup with thumb screw volume control. Needs no input transformer. Special \$1.95



FLEXIBLE WIRE WOUND GRID RESISTANCES
We Can Supply These Sizes:
100 200 300 400 500 600 700 800 900 1,000
250 500 750 1,000
\$1.00 Doz., Asst.



Heavy Duty Wire Wound Resistors Ward-Leonard, Hardwick & Hindle etc. 50 and 100 w. sizes.
Long
19,700—6" .30c
5,000—6" .25c
6,200—3½" .25c
10,000—4" .20c
16,000—4" .20c
15,000—4" .20c
8,350—5" .20c



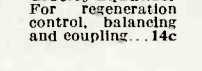
Air-King Precision S.W. Plug-in Coil Kit. Rugged, of the extreme low loss "air wound" type. Variably coupled primary. Covers 15 to 133 meters with 00014 tuning and 00025 tickler condenser. Complete set with diagrams and instructions...\$3.85



Air-King Midget Short Wave Plug-in Coils. Fit any UX socket. Compact rugged. Pure Bakelite forms. Cover full range 15 to 200 meters with .0001 cond. Set of four.....\$1.50



Crosley Equalizer For regeneration control, balancing and coupling...14c



Pick up and "Mike" Adapters For 4 and 5 Prong Tubes. A convenient Bakelite adapter for phono pickups, home broadcasters, microphones, etc. 25c each



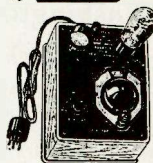
Shielded Lead-in Wire. size 18 Heavy duty, triply insulated, tinned. Outer tinned copper braid. Banishes pick-up noise. Also for wiring hi-gain circuits. 500-foot rolls.\$4.50 100 ft. rolls. 1.00



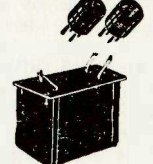
Tube By-Pass Filt. .1 Cond. Size 1-in. x ¼-in. x 1¼-in. Weather-Proofed Flexible Ribbon Leads. Price 10c. 65c. doz.



Air King Superhet. Short Wave Converter. For those who want the very best in S.W. Makes a first-class Superhet. of your broadcast receiver. Enjoy consistent Dalite DX. Self-contained. Plugs into AC line. No plug-in-coils required. Covers full range 15 to 120 meters with one Vernier dial and range selector switch. Complete with full instructions.....\$15.95



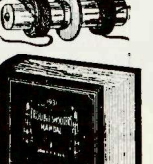
Dayton-Fluelling S-W Converter Plugs right into your set, without rewiring. Needs no extra batteries or tubes. A real bargain. Complete with 3 plug-in coils, for type UY or type UX.....\$4.95



Stromberg-Carlson Heavy Duty, Steel Jacketed Double Chokes 30 henrys each, 125 mils., 1000 v. insulation. Ideal wherever perfect, hum-free filtration is especially needed. Our price.....\$1.00



Full Vision Dial and Escutcheon Plate The newest dial adopted by over fifty set manufacturers. Very attractive. Complete with dial light and bronze escutcheon plate. Our price.....\$1.10



Tuned Superhet. I.F. Trans. Duo-lateral wound. Easy to mount. Only ¾" dia. x 2½" long. Price.....19c



New 1931 Rider's Trouble Shooter's Manual Over 1500 diagrams, 886 loose leaf pages—size 8½-in. x 11-in. Complete—comprehensive—up-to-date—it covers entire radio, P. A., short wave, and analyzer field, with values, color codes, terminals, etc. AND free consultation service—24 separate questions personally answered for you by John F. Rider at any time. Sold with a money back guarantee. Price.....\$4.50

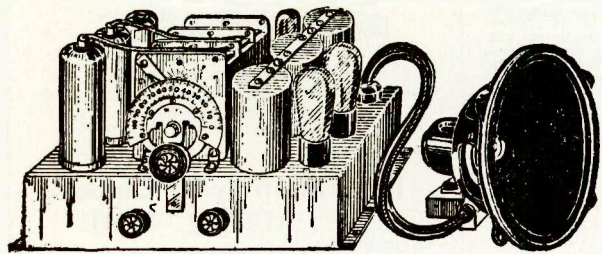
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67-R Cortlandt St., New York, N. Y.
Write for Our Complete Catalog (Free)

Airex Company's reputation with the trade is based on 10 years of *Careful, competent, fast service* by men who really know both the business and technical ends of the Radio game. Airex offers you a complete line of quality service equipment, standard merchandise, and replacement parts at remarkable

prices. All first class fast moving merchandise, AIREX GUARANTEED.

If you are not on our mailing list it will pay you to get our complete catalog. On these two pages are just a few of our hundreds of bargains.

Airex Power Pentode A.C. & D.C. Consolettes



Size 8x8x13 in. long

In the flood of flimsy midgets, good, bad and indifferent, that the past year has witnessed, this newest development stands out in sharp contrast as a positive piece of engineering genius. To get the superlative results that modern design theory offers is not easy; to get this thorough-going quality into a dainty consolette without compromise is very difficult, and to produce on a QUALITY basis at a price dictated by the present practice of cut-throat competition is a mighty big problem.

So anxious are we to have you hear this new receiver for yourself—to have you compare it yourself under your own conditions with any other set, and so confident are we that you will agree with us in all we have said of it that we offer you a TEN-DAY MONEY-BACK GUARANTEE without any strings or obligations. That's how much we think of it. MODEL 5-47 CAN ALSO BE HAD FOR VARIABLE-MU TUBES (235), NO ADDITIONAL COST.

Model 5-47 Pentode, 50-60 cycle, 95 to 125 v. A.C., using 3-224s, 1-247 power Pentode and 1-280 tube. Price.

\$21.75

Model 5-47 chassis with matched speaker (less cabinet). Can be installed in any midget or full-sized console. Price

\$18.85

NOTE
Order Good Tubes for these sets
SEE OUR PRICES

Model 6-45, 50-60 cycle, 95-125 v., A.C., uses 3-224s, 1-227, 1-245, 1-280 tubes. Price

\$23.25

With Matched Rola Dynamic Speaker and Easy Vision or Full Vision Illuminated Dials



APPEARANCE
—Newest full vision illuminated dial or ordinary dial. We regret that news-stock cannot do justice to the fine finish, the delicate detail and the graceful proportions of the attractive walnut cabinet.

*The only reason for the lower price of Model 5-47 is that the pentode is so much more sensitive than the 245, that a full audio stage can be done away with, resulting in a considerable saving in manufacturing costs. It is really the better job of the two.

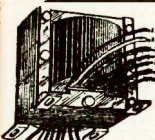
BUILT TO LAST — You will not need to replace this receiver for years to come.

Direct Current Model D, 110 v., D.C., uses 2-232s, 2-230s and 2-171A tubes. Price

\$32.50

Same as Model D, but for 220 v., D.C. Price

\$33.75



Crosley "ABC" Power Transformers. Two types, Part No. 5267 and Part No. 5115, for Crosley models 704-B, 706, 41 and 42, or for any set using 4-266, 1-227, 2-171A, 1-280. Price of 60 cycle 110v. AC. \$1.65
25 cycle, 220v. AC. 2.25
Part #145 for Model 608 or set using 3-228, 1-227, 1-171 A, 1-280. \$1.25



R.C.A. Photophone 12" dynamic speaker, AC and D.C. Special prices



Portable Radio Cabinet Ideal for Summer Trade. Size 18 1/2 x 10 x 11". Has compartment for cone speaker and batteries. Light, yet sturdy. Neat leatherette covered. Snap locks on front and back covers. Price. \$3.25



Trans. Corp. of Am. Push pull input and push pull output for 250's, 245's or 171A's. Easy to mount in any position. Size 2 3/4 x 2 1/2 x 2". Our Price. .95c



3-Wire Microphone Cable. Excellent insulation, over 6 ft. long. Price. .25c



6-Wire Flexible Cable. Eight ft. long. All wires have tracers. Price .30c
Moulded Speaker Plug and 5-Wire Cable. Heavy insulation, ideal for dynamic speakers, etc. .40c



Midget Radio Table. Sturdy, graceful, handsome walnut finish. The last word in clinching a sale—many dealers offer them "Free with every set". Top, 11x17", height 28". Come packed in cushion carton. Price. \$2.35



Combination "A,B,C" Airex Power Packs, wired ready for use in 4 types. Electricity that battery set. Delivers over 125 mls., 300v., supplies all voltages for up to eight tubes. State tubes to be used. Provision for DC dynamic field. Price, any type. \$5.45



Peerless Dynamic Chassis Every AC and DC Type in stock to fit any type set or power amplifier. All equipped with either P.P. or straight output transformers. Field resistances, 575, 1,000, 2,000, 2500, 7500 ohms.

Our Net Prices to You
9" DC \$6.50 11" AC 10.75
9" AC 8.50 12" DC 9.50
11" DC 7.50 12" AC 11.25
14" DC 11.25 14" AC 13.50
7" 6v. DC. .50
9" 6v. DC. .625
The 14" is the Super Model!



Earl and Kolster Shielded Power Trans. A well-built dependable job. For 5-226, 2-227 2-171A, and 1-280 and all "B" and "C" voltages. Price. \$1.95



Genuine Baldwin Rival Speaker Unit. The unit of a hundred uses— Full diagrams and directions included free on request. Price 40c. with shell 50c.



Majestic Condenser— A genuine Majestic replacement condenser. Ideal for all repair work, size only 1 1/4 x 3 1/4", one mfd., 600v. .35c



Victor Shielded Replacement Condenser Block. 10 3/4 mfd., 600v. test, size 5 1/4 x 4 3/8", 5 taps. Price. \$1.75



R.F. Chokes. 40 and 20 Milhenrys. For RF, IF, SW work. Dia. 1", 1 1/2" thick. Price. .15c



Hi-Volt Shielded Filter and Transmitter Condensers. 1 mfd., at 1500 v., or 4 mfd., at 800 v. .15

Crosley Chokes. Shielded and Impregnated. Double 60 Hy. at 80 mls 85c. Single—30 Hy., 80 mls, 120 ohms 75c.



De Luxe Speaker Motor Drive Speaker. Unquestionably the nearest unit to a first-class dynamic ever developed. Extremely sensitive, reproduction actually finer than most dynamics, will translate heaviest power output without chattering or distortion. No output transformers needed. Ideal for the new pentodes. Our price. \$3.25



Line Voltage Regulator Heavy duty (150 watts) differential resistance automatically keeps line voltage steady. Levels out surges. Saves tubes, prevents condenser breakdowns. Fits standard socket or outlet. List \$1.75, our price. .45c



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Litz High Frequency Cable. Used in DeLuxe RF and IF coils for utmost efficiency and lowest losses. Far superior to ordinary wire where price is not a factor. Size 20/38, 1/4 lb. spool. .35c



Centralab Twin Potentiometers. Two potentiometers or Variable resistors on one shaft. Front unit 250,000 ohms, rear 10,000. One-hole mount, quiet, stepless control. Has many important uses, as Phono-Radio volume control, dual RF control, tone control, etc. Our price. .35c

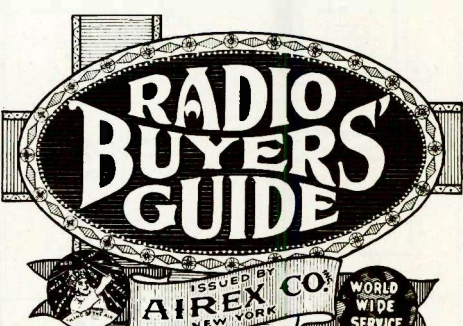


Moulded Socket 10c. ea.

AIREX "Junior" Screen Grid Power Four



Dealers! Here's an amazing buy—the fastest selling all electric we have ever seen. Uses 2-224 screen grids, 1-245 power, 1-280 full wave rectifier, and Rola dynamic speaker, giving ample sensitivity, selectivity, and undistorted power output. Housed in fine walnut finish cabinet. Easy to sell—anybody can afford more than one! Buy one, try it, then order a dozen. Our price, while they last. \$14.88



It Will Pay You to study the contents of the catalog carefully. You will find here not only unusual bargains in everything you need, unbiased information, and real money making suggestions scattered on every single page, but in addition, many truly amazing buys tucked away here and there that will please and surprise you indeed. . . our way of thanking you for taking time to give our catalog your valued consideration and close attention.


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Radiola 62, Field Supply Pack 60 Cyl., Part No. 8384, L.P. \$8.25, Our Price \$3.25.

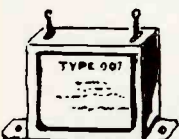
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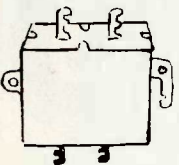
3 COIL ASSEMBLY

R. F. Detector and Oscillator Coil Assembly Mounted on Metal Strip Used in RCA 17-18-33
Employs two neutralizing condensers.
Our Special Price \$1.10 Per Set



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7 Mfd. Condenser
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**No. 2/18-1/64 Rubber Silk
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With Inner Braid
Approved
Standard Colors

500 ft. 2—500 ft. Spools	6—500 ft. Spools
\$4.50	\$8.25 \$24.00


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Ea. 20c Doz. \$2.00

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This volume control will stand up where others fail. It will get you away from burnt out troubles. Can be used on any set. Standard for R.C.A. Victor Sets.

Ea. 25c	Doz. \$2.90
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All Approved by Underwriter

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500 ft. Spools.
2/18 - 1/64 rubber, cotton braid.
One Spool Ea. \$2.45. 6 Spools Ea. \$2.35.
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Not more than 12 spools to a customer.


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AERIAL WIRE**



100-Ft. Coils
Full Weight and Measure

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COPPER LEAD-IN WIRE**



	50-ft.	100 ft.	500 ft.	1000 ft.
No. 16	.15	.28	\$1.30	\$2.50
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No. 14—3/64 rubber—single braid. Stranded Code Wire. Staple as sugar—500-ft. coils. Each with Underwriters' Label.
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An extra heavy duty flexible rubber covered cord, positively water and oil proof. Suitable for garages, shops, etc. A full 60% rubber cord.
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Approved



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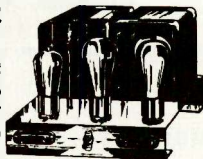
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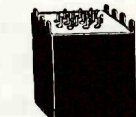


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110 volts, 50-60 cycle.

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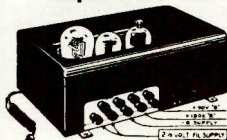


Victor A.B.C. Power Transformer
As used in Victor sets. For use with six 26's, two 45's and one 80; can also be used for any power amplifier using 245. Price, \$2.10
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Quam Magnetic Speaker
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R.C.A. component parts compose the major portion of this superior constructed combination amplifier and power supply.

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Model BRC 1, 110 volts, 50-60 **\$13.50** cycle. A.C. list \$70.00, our price.

Pentode Screen Grid Power Amplifier Model BRC 3. This model differs from Model BRC 1 in the tubes used and the method of coupling employed. The 224 screen grid tube is used in the first stage and is resistance capacity coupled to the 227 Pentode power output tube. This makes an ideal television amplifier.

List \$90.00, 110 volts, 50-60 **\$16.90** cycle A.C. Our price

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A.F. Transformer Assembly for Radiola 80, 82 and 86; Part 8554.



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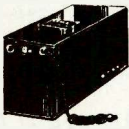
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Midget in size, gigantic in performance. Advanced in design, beautiful in appearance and sure to win the favor of your most exacting customers. More profit in your cash drawer with this Summer Sales Booster.

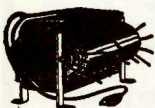


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Our Price **\$23.95** less tubes

Boost your Summer Sales, Show More Profit. This set also available in 220 v. A.C. or 110 v. D.C.

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Three secondaries, will deliver filament current for two '71A, or '12A tubes in push-pull and sufficient "B" and "C" potential for these tubes.

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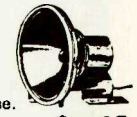
R.C.A. Brunswick Catacombs
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12 inch cone, 600 ohm D.C. Resistance. Ideal for home or auditorium use.



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"PUT THEM TO A SERVICE TEST" Look our list over. They include all the new tubes, including the new

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CX332 2.30	CX300-A 4.00	
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C335 2.20	CX326 1.75	
C551 2.70	CX371-A 2.25	
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C327 1.25	CX199 2.50	
CX345 1.40	CV199 2.75	
CX350 5.00		
CX381 5.00		

These tubes are of the highest standard and are sold on a money back approval basis if not satisfactory.

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Compact moisture proof, impregnated, and packed in individual cartons. 1000 volts D.C. working voltage.
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100% replacement guaranteed.

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Ideal for use between power tube and speaker. Take no chance on burning out your speaker. Our Price **75c.**

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All resistance values.

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227...		199X...		WD11	
226...		199V...		WD12	
230.....	} .75	281	} 1.25	171A..	.40
231.....		222		224....	.50
232.....		210		250....	1.35

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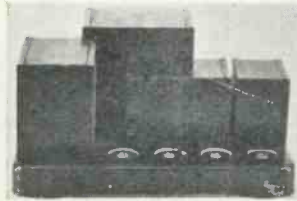
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To:—Public Address Specialists and Service Men

R.C.A.-VICTOR Power Amplifiers

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Uses:—1-226, 1-280, 2-245

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each net

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R.C.A.-Victor Power Transformers
No. 60 No. 48

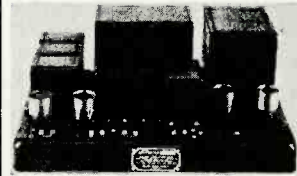


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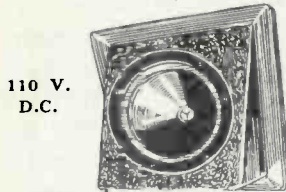
Very Powerful Amplifier Suitable for Theatres and All Large Installations



Model S.P.U. Amplifier
Uses:—1-226, 1-250, 2-281

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R.C.A. Photophone Speakers, Very Powerful Theatre Dynamic, Mounted on Heavy Metal Baffle



110 V. D.C.

Exciters for Operation on 110 V. A.C.
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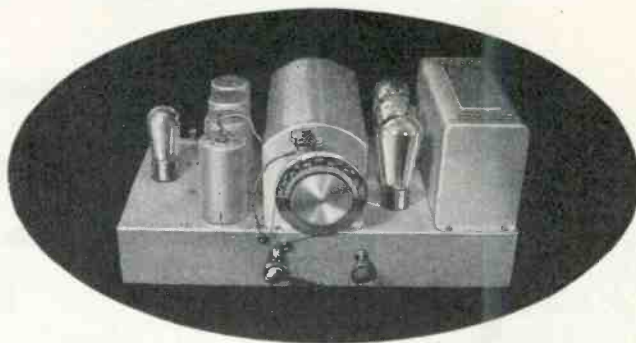


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Highboy Walnut Console for Above Chassis . . . \$6.50 net



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Radio Tubes



Manufactured by one of the Foremost Radio Tube Manufacturers. Due to a special arrangement we are not permitted to advertise the maker's name.

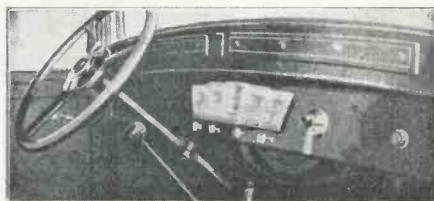
226	} 30c	224	} 35c
171A		227	
201A	} 65c	230	}
245		231	
280		232	

247 PENTODE . . . 60c.

BH 125 Mil. . . . \$1.25

PILOT LIGHTS \$3.00 for 50
2½ and 6.Volt 5.00 per 100

NEW MODEL TRANSITONE AUTOMOBILE RADIO



SINGLE DIAL
COMPACT
STURDY
OUT-OF-SIGHT

EASY TO
INSTALL

Complete with Speaker and Tubes

OUR PRICE

Transitone is the original Auto Radio—embodying all the newest advancements for the best radio reception and audition. Six tubes, single dial control, as easy to operate as flicking on the headlights.

Stock No. 1075 **\$34.50**
Net

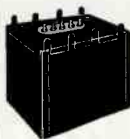
COMPLETE SUPPRESSION KIT . . . \$3.75

RCA-VICTOR Replacement Parts



RCA Power Transformers

Radiola 17-18-33
No. 3310 . . . \$3.25 net
Radiola 44-46-60
No. 3312 . . . \$3.75 net



Victor 10½ Mfd. Condenser Block

Stock No. 3410
\$1.50
Net



RCA-1000 Volt Un-cased Condensers

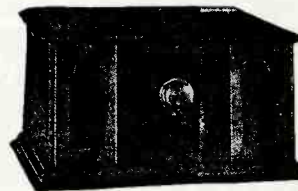
Stock No. 3520
½ mfd. 20c. . . \$2.25 doz.
1 mfd. 25c. . . 2.50 doz.
2 mfd. 35c. . . 3.60 doz.
3 mfd. 50c. . . 5.60 doz.



Victor Power Transformers

Stock No. 3635
\$2.10
Net

A Wonderful Value BATTERY OPERATED RADIO RECEIVER



Stock No. 1085

\$4.95
Net

Encased in a beautiful 2-tone walnut cabinet—single control—automatic volume control—cabinet size: 18x11x10 inches, chassis size: 8x8x8 inches.

Carborundum Pig-Tail Resistors

100	ohms	20,000	Stock No. 3540
150	1,500	25,000	
200	2,000	30,000	OUR PRICE
300	2,500	40,000	
400	3,000	50,000	
600	3,500	75,000	
700	4,000	100,000	
750	4,400	180,000	
875	5,000	250,000	
1,000	10,000	500,000	
1,125	15,000	200,000	
	2 Meg.		Any Assortment Permitted
	3 Meg.		

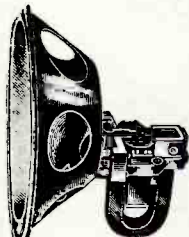
75c

Per Dozen

B B L Magnetic Speakers

Stock No. 2775

\$3.25
Net



DIXON RADIO & ELECTRIC CORP.

110 East 23rd St., New York, N. Y.

Please send me free of charge your WHOLE-SALE RADIO CATALOG.

NAME _____
STREET _____
CITY _____ STATE _____

TERMS: 20% with Order; Balance C.O.D.

Dixon Radio & Electric Corp.

110 East 23rd Street, New York City

Federated SCORES AGAIN

LICENSED
BY  &
LOFTIN-WHITE

With
THE HIT
OF THE
SEASON!



Acratone
WITH DIRECT COUPLED
AMPLIFICATION

TRIPLE SCREEN GRID
LOFTIN-WHITE AMPLIFIER
ROLA DYNAMIC SPEAKER

CIRCUIT:

This radio receiver employs 2 stages of radio frequency followed by power detection and LOFTIN-WHITE 245, DIRECT COUPLED AUDIO AMPLIFICATION. This combination insures Sensitivity, Selectivity, Full Dynamic Volume, Tone and Stability.

CABINET:

Of simple lines, yet graceful and artistic proportions, walnut satin finished; 13½-in. high, 10-in. wide and 8-½-in. deep. Shipping weight, 29 lbs. Beautiful Lyre Speaker Grille. Etched Escutcheon.

CONSTRUCTION:

All parts rigidly mounted on a heavy steel cadmium plated chassis. Coils and tubes fully shielded. Triple tuning condenser. 10 K. C. station separation. Two 8 Mfd. Dry Electrolytic Condensers filter out every trace of A.C. hum. Oversize Power Transformer delivers exact voltages to each tube for maximum efficiency and long life. Drum type dial.

RANGE:

The receiver will operate on local stations without an aerial. With an aerial it brings in distance galore. You will be amazed at its remarkable sensitivity and ability to pull in distant stations. There is nothing "small" about this receiver. It gives all around "big" performance.

OUR GUARANTEE

Order a sample today. See and hear this wonderful set in your own store. If you do not agree with us that it is the best set value on the market today, you may return the set to us and your money will be cheerfully refunded. Can any offer be fairer?

CLOSEOUT
PRICE

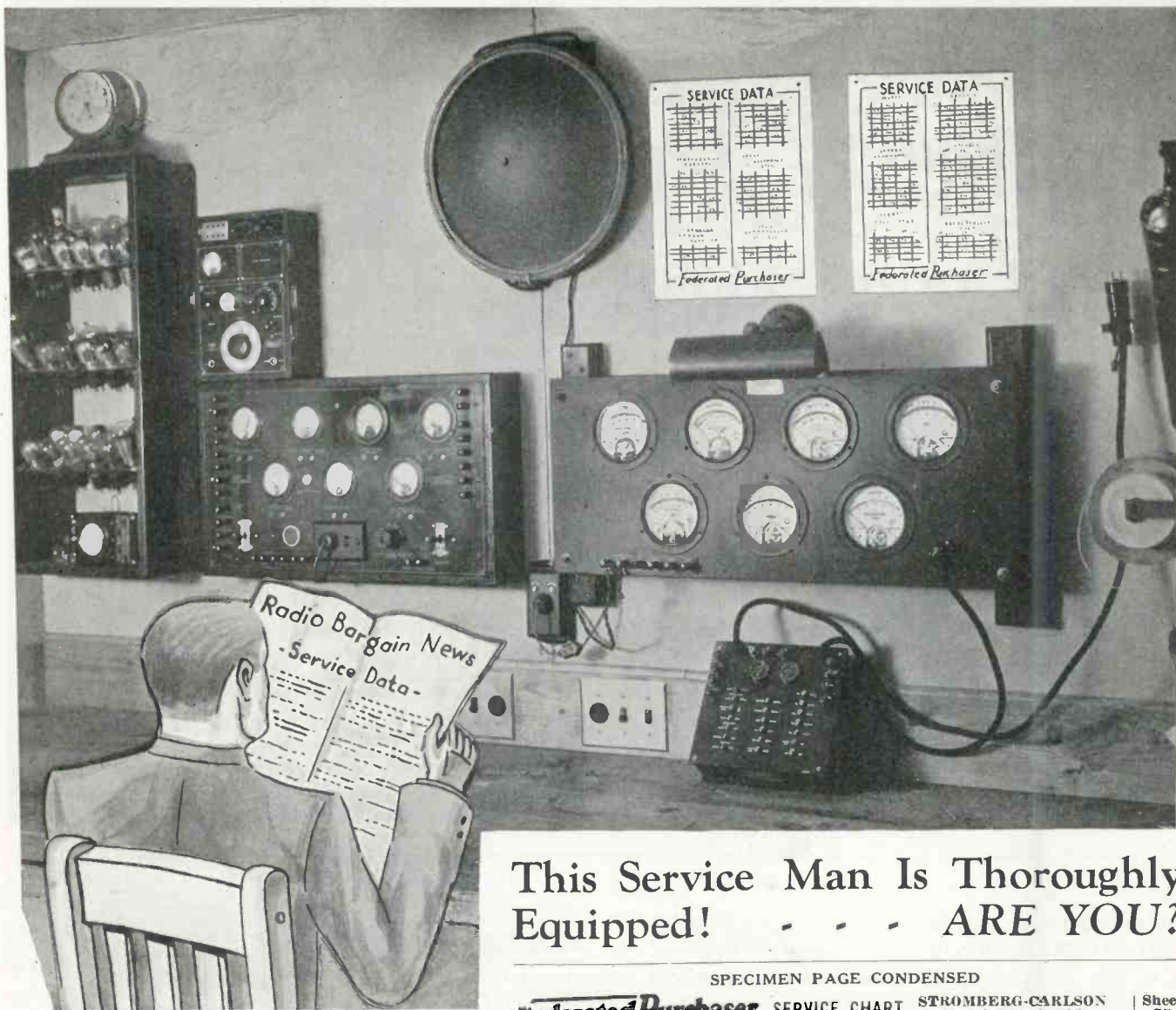
\$19.85

LESS
TUBES

Equipped with Arcturus 3-224, 1-245 and 1-280 Tubes \$24.25. Terms: 20% with order, balance C.O.D. 2% off for full cash.

Federated Purchaser

23 PARK PLACE, NEW YORK CITY



Photograph Courtesy of Shannon Radio Service, Mt. Vernon, N. Y.

This Service Man Is Thoroughly Equipped! . . . ARE YOU?

SPECIMEN PAGE CONDENSED

Federated Purchaser SERVICE CHART STROMBERG-CARLSON Model 635 & 636 | Sheet 85

Thousands of Radio dealers and servicemen everywhere are finding the Service Data in RADIO BARGAIN NEWS indispensable to their business. Their letters in our files attest to this fact. This service is placed at the disposal of our customers because it is our policy to assist them in every way we can.

If you are not receiving RADIO BARGAIN NEWS regularly, you are not getting the full benefit of this FREE service. Your service department needs these data sheets.

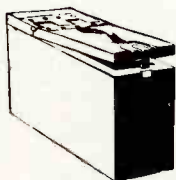
PART	CONNECTED		VALUE	Replacement	
	From	To		Cat. No.	Price
RESISTORS					
1st R. F. Cathode Bias	1st R. F. Cathode	Ground	1500 Ohms	4600	\$0.15
2nd R. F. Cathode Bias	2nd R. F. Cathode	Ground	1500 Ohms	4600	.15
3rd R. F. Cathode Bias	3rd R. F. Cathode	Ground	1500 Ohms	4600	.15
Det. Cathode Bias	Det. Cathode	Ground	10000 Ohms	4600	.15
1st A. F. Cathode Bias	1st A. F. Cathode	Ground	1500 Ohms	4600	.15
A. F. Sec. Shunts	Across both A. F.	Transformers	1 meg	4600	.15
Det. Fil. C.T.	Across Det.	Filaments	10 Ohms C.T.	4714	.10
2nd A. F. Fil. C.T.	Across 2nd A. F.	Filaments	20 Ohms C.T.	4724	.10
Det. Plate	Voltage Divider	Phono Pickup Jack	30000 Ohms	4600	.15
TRANSFORMERS AND CHOKES					
Power Transformers				3722	5.50
Output Choke	High Voltage	2nd A. F. Plate		3718	1.25
MISCELLANEOUS					
Filter Block				3723	4.95
Front Volume Control	Across Primary	Det. Coil	10000 Ohms	3208	.70
Rear Volume Control	Antenna	Ground	10000 Ohms	3210	.65
On-Off Switch	Series with one side of line		Rotary	4122	.25
Hi-Lo Switch			Snap	4104	.25
CONDENSER					
1st R. F. Cathode by pass	1st R. F. Cathode	Ground	.5 mfd.	2781	.25
2d R. F. Cathode by pass	2nd R. F. Cathode	Ground	.5 mfd.	2781	.25
3d R. F. Cathode by pass	3rd R. F. Cathode	Ground	.5 mfd.	2781	.25

FREE! TOOL BOX

For a limited time and while our supply lasts, we will send one of these sturdy and useful Tool Kits to any radio dealer or service man who writes in for it. Just send 25c. in stamps or coin to cover postage and the Tool Kit will be mailed you.

Made of solid 3/4-inch oak, with heavy hinge and snap lock. Cowhide carrying handle. Painted khaki.

Just the thing to hold screw driver, hammer, pliers, wrenches, soldering iron, tape, solder and other heavy tools.



Eight charts like the above specimen, besides other valuable service data appear in the June number of RADIO BARGAIN NEWS.

Write for free copy today.

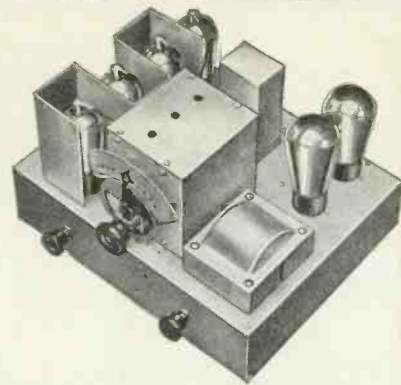
Federated Purchaser

23 PARK PLACE

NEW YORK CITY

Merchandising Radio For Profit

A RADIO CHASSIS FOR EVERY PURPOSE



DEWALD NEW PENTODE RADIO TRIO

LICENSED UNDER R.C.A. PATENTS

1. PENTODE SUPER-HETERODYNE.
2. PENTODE SUPER-TUNED RADIO FREQUENCY for A. C. Current.
3. PENTODE SUPER-TUNED RADIO FREQUENCY for D. C. Current.

IN CABINET OR CHASSIS FORM

Write for full particulars and see the new De Wald Trio at Chicago Radio Trade Show, Booth 107, Exhibition Hall.

PIERCE-AIRO, Inc. 510 Sixth Ave. New York City
MANUFACTURERS OF FINE RADIO SETS FOR TEN YEARS

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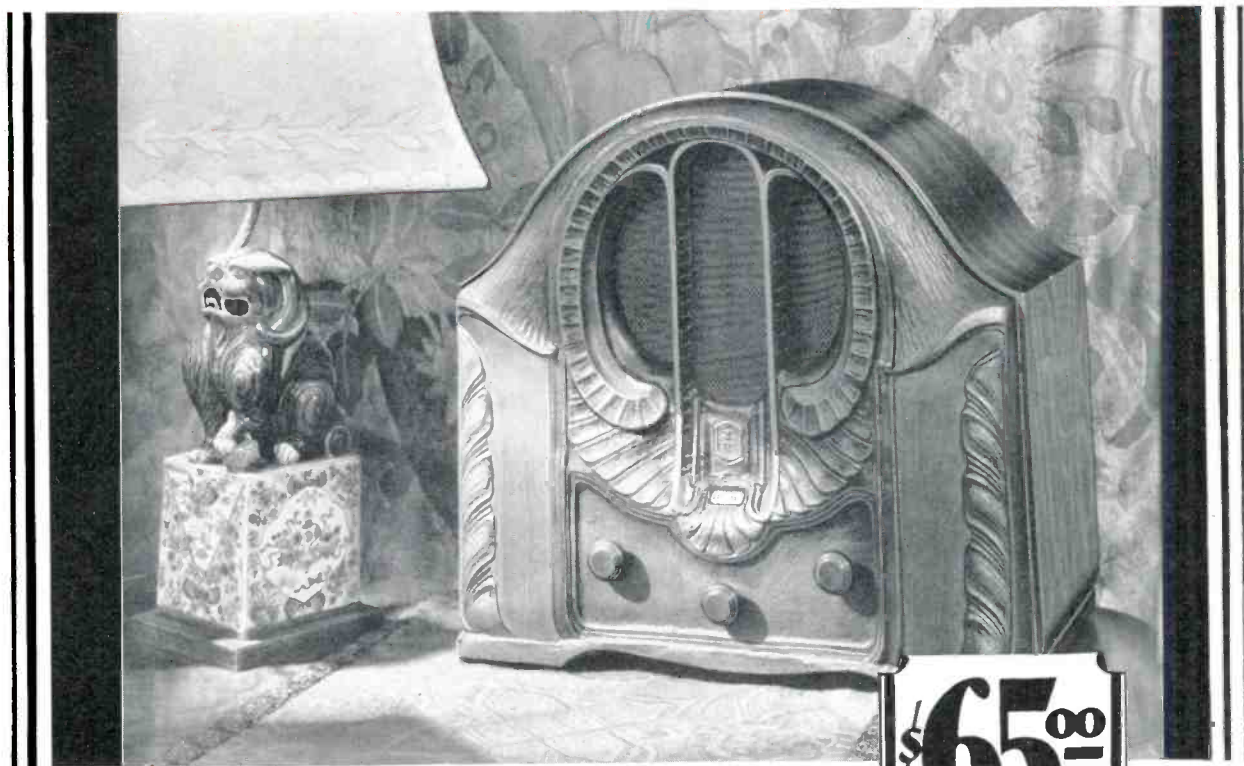
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This index is published as a convenience to the reader. Every care is taken to make it accurate, but Radio Retailing assumes no responsibility for errors or omissions.

CROSLEY presents a Low Priced 7-Tube Superheterodyne Pentode (Pliodynatron) Radio Receiver



The New Crosley **SUPER BUDDY BOY**

\$65⁰⁰

COMPLETE WITH
TUBES AND
TENNABOARD

Montana,
Wyoming,
Colorado, New
Mexico and
West, price
slightly higher.

16 FEATURES

1. *New Crosley Superheterodyne Pentode Circuit
2. Seven Tubes (Six Screen Grid)
3. Five-element Pentode Output Tube
4. Exponential or Variable Mu Radio Frequency Tube
5. Exponential or Variable Mu Intermediate Frequency Tube
6. *Pliodynatron Oscillator
7. Full Floating Moving Coil Dynamic Speaker
8. Continuous (Stepless) Static Control
9. *Illuminated Angular Vision Ribbon Dial
10. Vernier Drive
11. Continuous (Stepless) Variable Tone Control
12. Combined Volume Control and On-Off Switch
13. *Crosley Tennaboard
14. *Beautiful New One-piece Molded Cabinet
15. Perfect Tone and Powerful Undistorted Output
16. Priced Complete with 7 Tubes at only \$65.00

*Exclusive CROSLEY Feature

SINCE its introduction only a few weeks ago The New Crosley SUPER BUDDY BOY has enjoyed unprecedented success. The radio public is ready, willing and anxious to accept this radio sensation which can boast of so many outstanding features (five features exclusive with Crosley).

The SUPER BUDDY BOY incorporates the most recent of all radio developments — the Five-Element Pentode Output Tube. Its use is equal to two stages of amplification. The Variable Mu tubes impart a richness and fullness of tone to reception remarkably free from the customary background noises. The use of a Screen Grid tube as the Pliodynatron Oscillator — an exclusive Crosley feature — eliminates adjustments that are necessary with the three-element oscillator used in all other superheterodynes. In spite of these astonishing features, The SUPER BUDDY BOY is small in size and can be easily carried from room to room in the home.

Never has there been a radio receiver that holds the possibilities of big sales and profits as The SUPER BUDDY BOY. Get in touch with your Crosley distributor today — see and hear this marvelous new receiver.

THE CROSLEY RADIO CORPORATION

POWEL CROSLEY, Jr., *President* Home of "the Nation's Station" — WLW
CINCINNATI

Also manufacturers of the CROSLEY Battery Radio Receivers and the
CROSLEY ROAMIO Radio Receiving Set.

YOU'RE THERE WITH A CROSLEY

CROSLEY RADIO

H G DILLEMUTH
79 IVYHURST RD
BUFFALO N. Y.

• • Do Set Sales Come Hard? • •



try equipping your sets with **RCA Radiotrons!**

MODERN radio set buyers are "in the know." They are *buying*, but they are insisting as never before that they get value for their money. They are looking inside the cabinet to make sure that well-known, quality tubes are there. Does this investigation catch you unprepared? Does it embarrass you? Do you have to grope for an explanation?



Have your distributor deliver your sets equipped with RCA Radiotrons, and know the pleasant feeling of being ready for the most hard-to-please. RCA Radiotrons, the standard vacuum tube of the industry, satisfy *everybody*. No tubes are better known; no tubes enjoy a better reputation for quality performance. RCA Radiotrons actually *help sell* sets.

RCA RADIOTRON CO., INC. ~ HARRISON, N. J.

A Radio Corporation of America Subsidiary

RCA Radiotrons

THE HEART OF YOUR RADIO