

Radio Retailing

The Business Magazine of the Radio Industry

A McGraw-Hill Publication

APRIL, 1928

what is the answer to present-day
"radio talk"?

what is the greatest single underlying
factor that governs a dealer's suc-
cess and permanency in radio?

who today is looked to as the voice
of authority in radio?

how will 1928 stand as a
"radio year"?

The answers to these questions will be found on
pages 14 and 15. Turn there now. Read this most im-
portant message in this issue of Radio Retailing.

STEWART-WARNER

STEWART-WARNER SPEEDOMETER CORPORATION
CHICAGO, U. S. A.

A
MESSAGE *of* THANKS
and a word of
PROPHECY

THE Farrand Manufacturing Company has just completed the most successful business year in its history ... more Farrand Speakers having been sold during the 1927-28 season than in any similar period in its career. While recognizing this as further tribute to Farrand supremacy in the cone field, we are more than mindful of the part played both by distributor and dealer. To them ... to every Farrand distributor and dealer through whose joint efforts this splendid record was made possible ... we convey our hearty thanks ...

and likewise....

the assurance that the Farrand line for the coming season will, more than ever, continue to merit their fine support.

FARRAND MANUFACTURING CO., INC.
LONG ISLAND CITY / / / NEW YORK

Farrand

Always the FIRST Cone

SPEAKER

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Editorial Director
RAY V. SUTLIFF,
Western Editor, Chicago
HENRY W. BAUKAT,
Technical Editor
S. J. RYAN,
Merchandising Counsellor

Radio Retailing

The Business Magazine of the Radio Industry

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OVID RISO
C. GRUNSKY, San Francisco
PAUL WOOTON, Washington

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C. L. Dennis Joins Radio Retailing

FOLLOWING its policy of keeping in close touch with every branch of the radio industry, *Radio Retailing* has secured C. L. Dennis, formerly of the Music Industries Chamber of Commerce, as a contributing editor. *Radio Retailing's* staff of contributing editors now includes three acknowledged experts in their respective fields: John W. Griffin, president of Haynes-Griffin, Inc., New York, one of the country's foremost radio merchants; S. J. Ryan, vice-president of Rines Brothers Department Store, Portland, Me., and a recognized authority in merchandising; and now, Mr. Dennis.

Mr. Dennis was formerly manager of the merchandising service department of the Music Industries Chamber of Commerce and was also executive secretary of the National Association of Music Merchants. In these connections for more than ten years, Mr. Dennis had an unusual opportunity to become intimately acquainted with the problems of the music trade, particularly as regards radio. The results of his long experience in music merchandising will be reflected in *Radio Retailing's* service to the radio industry.

Mr. Dennis's first job, at which he is now at work, is a thorough survey and analysis of the music field so that a true perspective of this important part of the radio industry may be obtained. The results of Mr. Dennis's survey will be made available to readers and advertisers as soon as completed.

Export Number Next Month

THE May issue of *Radio Retailing* is designated as the Export Number and plans are being made to mail 1,200 copies to leading radio outlets throughout the world. Editorially, the May issue will contain a statistical review of radio exports last year to every foreign country. Radio manufacturers desiring to develop their foreign markets will, in the May issue of *Radio Retailing*, have an opportunity to tell their story to the most important radio buyers in every part of the world.

June, the Trade Show Number

UNUSUAL importance is being attached to this year's Trade Show Number of *Radio Retailing*. As the mailing of the June issue will be held until June 11, manufacturers will be able to announce their new models to the trade as a whole coincidentally with the opening of the Trade Show at Chicago on that date. Advertising forms will close May 20.

Editorially, the June issue will be of such value that dealers and jobbers will keep it as a handy reference guide. Trade Show exhibitors and the products exhibited will be listed, and as many new products as possible will be illustrated. Photographs of the new radio receivers, speakers and cabinets will be published so that the trade throughout the country will be given a visualization of what is being exhibited at Chicago.

Member Audit Bureau of Circulations and Associated Business Papers

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

NEW YORK DISTRICT OFFICE, 285 Madison Ave.

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

WASHINGTON, National Press Bldg.
CHICAGO, 7 South Dearborn St.
PHILADELPHIA, 1600 Arch St.
CLEVELAND, Guardian Bldg.
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SAN FRANCISCO, 883 Mission Street
LONDON, E. C. 8 Boulevard St.



Listen to the Stromberg-Carlson Sextette Tuesday evenings at 8 o'clock E.S.T., through the NBC and Associated Stations:— WJZ, WBZ-WBZA, WBAL, WHAM, KDKA, WJR, KYW, KWK, WREN, WTMJ, WCCO, KVOO, WFAA, KPRC, WOAI, WHAS, WMC, WSB, WBT, KOA.

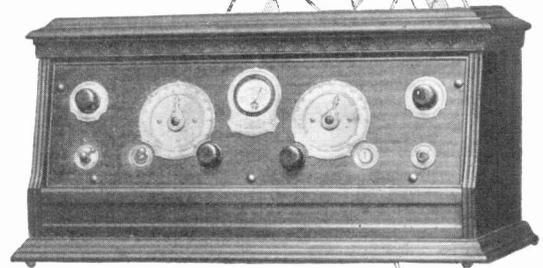
Stromberg-Carlson's FAMOUS TONE— for Both Radio and Records

A TELLING sales feature of the new A. C. Stromberg-Carlson Receivers is that they give the same realistic tone to phonograph record reproduction as to radio.

To play records through a Stromberg-Carlson merely add the new Stromberg-Carlson Magnetic Pick-up Outfit to a standard phonograph — then push the Pick-up plug into a jack provided in the Receiver. The operating power is from the house-lighting circuit just the same as for radio—the tone of the record reproduction has all of radio's living beauty.

Wide-awake dealers will welcome this opportunity of giving their customers two-fold radio value—and will find the record reproducing ability of these Receivers a great advantage in giving demonstrations of tone quality, when there is no station on the air.

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



Stromberg-Carlson Receivers complete with tubes for A. C. house current operation, East of Rockies, \$295. and up; Rockies and West, \$315. and up; Canada, \$390. and up. No. 523 A.C. Stromberg-Carlson, illustrated.

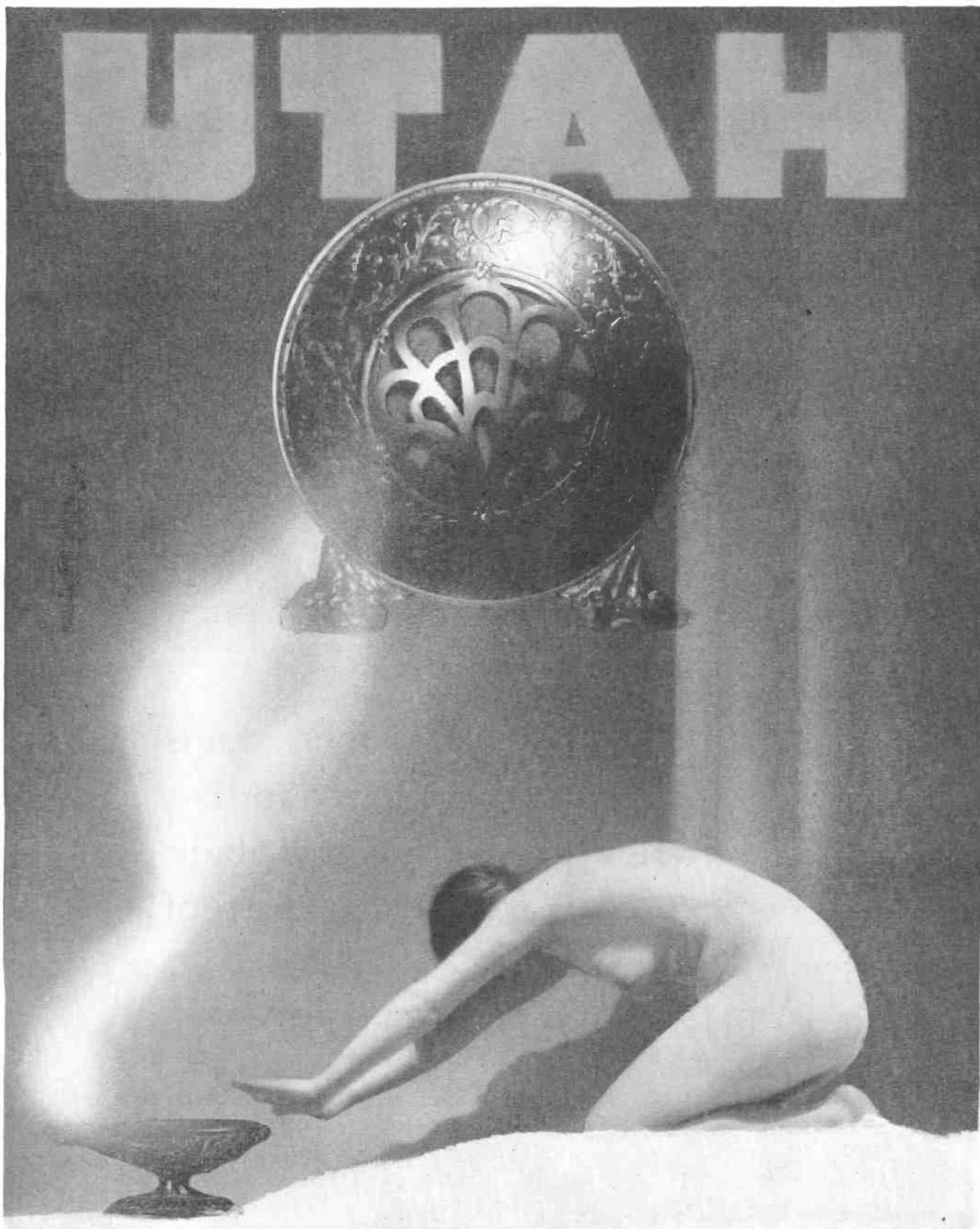
Every new Stromberg-Carlson has handy jack to facilitate playing phonograph records.



No. 10 CONE SPEAKER
A new 22-inch Seamless Cone Speaker. Complete with long cord; Price, East of Rockies, \$40; Rockies and West, \$44; Canada, \$50.

Stromberg-Carlson

Makers of voice transmission and voice reception apparatus for more than thirty years.



Phantom melody of the air is magic realism to your ear as you listen to the new UTAH SPEAKER. Full, rich, harmonious, the tones come in with mystic fidelity to original values. The new, complete line covers all designs—prices ranging from \$10 to \$100 UTAH RADIO PRODUCTS COMPANY, 1615 South Michigan Ave., Chicago

POOLEY

*Leader in Radio Cabinets
of Quality*



Four years of leadership in radio cabinets—and now for 1928-29 Pooley will present the finest line in its history.

A large part of the public wants quality radio merchandise. Pooley Radio Cabinets are built expressly to fill that part of the market.

THE POOLEY COMPANY

1600 Indiana Avenue

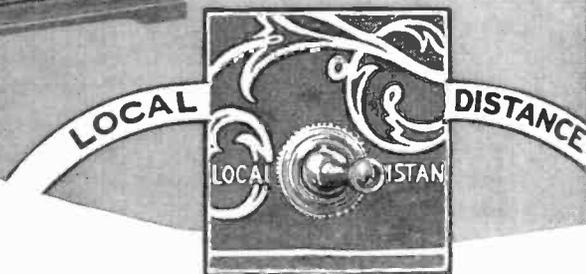
Philadelphia, U. S. A.



Get it *Better* with a Grebe



The Grebe A-C Six has Unusual Sales Features



A New Grebe Feature—
Local-Distance Switch

A COMPLETE A-C operated receiver with several unusual advantages that appeal instantly to the buyer.

Grebe-built—always a guarantee of satisfaction to the user; and to you, real profit through freedom from excessive servicing.

Write for Booklet RR

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

Factory: Richmond Hill, N. Y.

Western Branch: 443 So. San Pedro St., Los Angeles, California

Makers of quality radio since 1909

The Grebe
Synchrophase
A-C Six offers

in addition to
Tone—clear, true, natural, free from A-Chum;
Volume—no distortion;
Selectivity—without loss of tonal fullness.
Cabinet—mahogany finish with burl walnut panel;
several new features, such as—
Local-Distance Switch
Antenna Control
Illuminated Dial in kilocycles
Line Voltage Control,
Etc.

GREBE
SYNCHROPHASE
TRADE MARK REG. U.S. PAT. OFF.
A-C Six
RADIO



- Grebe Synchrophase A-C Six, \$227.50 (less tubes)
- Grebe Synchrophase Seven, \$145.00 (less tubes)
- Grebe Synchrophase Five, \$105.00 (less tubes)
- Grebe Natural Speaker \$35.00 (Illustrated)
- Grebe No. 1750 Speaker \$17.50



The Romance of Wood

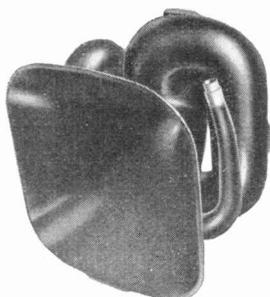
Since the dawn of the first day, the symphony of Life has been carved on the bark of trees . . . Wood is nature's chosen and unsurpassed method of expressing the universal language of music.



MOLDED WOOD TONE CHAMBERS



LIST \$7.00. Fidelity Speaker Unit.
Will handle output of largest power amplifier



LIST \$18.00. This is No. 595—Tone Travel, 8 feet. Over-all dimensions: 21¼" High, 18" Wide, 15" or 13" Deep.
No. 570 is identical in design. Tone Travel, 6 feet. Over-all dimensions: 15" High, 12" Wide, 12" Deep. LIST \$13.00.

A full line of tone chambers for every style and size of cabinet. Already mounted in sturdy box from which it is not removed. Simply place in cabinet, block, and the job is finished. Takes any standard size speaker unit.

Progressive dealers add to their profits and good will by installing Molded Wood Tone Chambers in new console cabinets and as replacements for old style cone and horn loud speakers

MOLDED Wood Tone Chambers should not be confused with other types of speakers. They are different in many vital respects. The Fidelity Speaker Unit creates the superb voice of the Molded Wood Tone Chamber for which it was especially designed.

Regardless of the tonal frequency, whether the low, throbbing notes of the organ or the thrill of the soprano, the reproduction is of utmost faithfulness.

Manufacturers, jobbers and dealers are especially urged to learn for themselves the orthophonic tone quality that causes Molded Wood Tone Chambers to stand out pre-eminently in the field of long tone chamber exponential speakers.

Comparison will firmly establish their greater sales importance, when profit, quick turnover and enthusiastic consumer satisfaction are concerned.

A Molded Wood Tone Chamber will be sent for test purposes, without any obligation to purchase.

Send for catalog and wire for full details

MOLDED WOOD PRODUCTS, INC.

219 WEST CHICAGO AVE.

CHICAGO, ILLINOIS

Already!
sales of the new
Splitdorf * "DUPLEX"
all-electric receiver
are far in excess of
sales for 1927!

SPLITDORF Radio CORPORATION

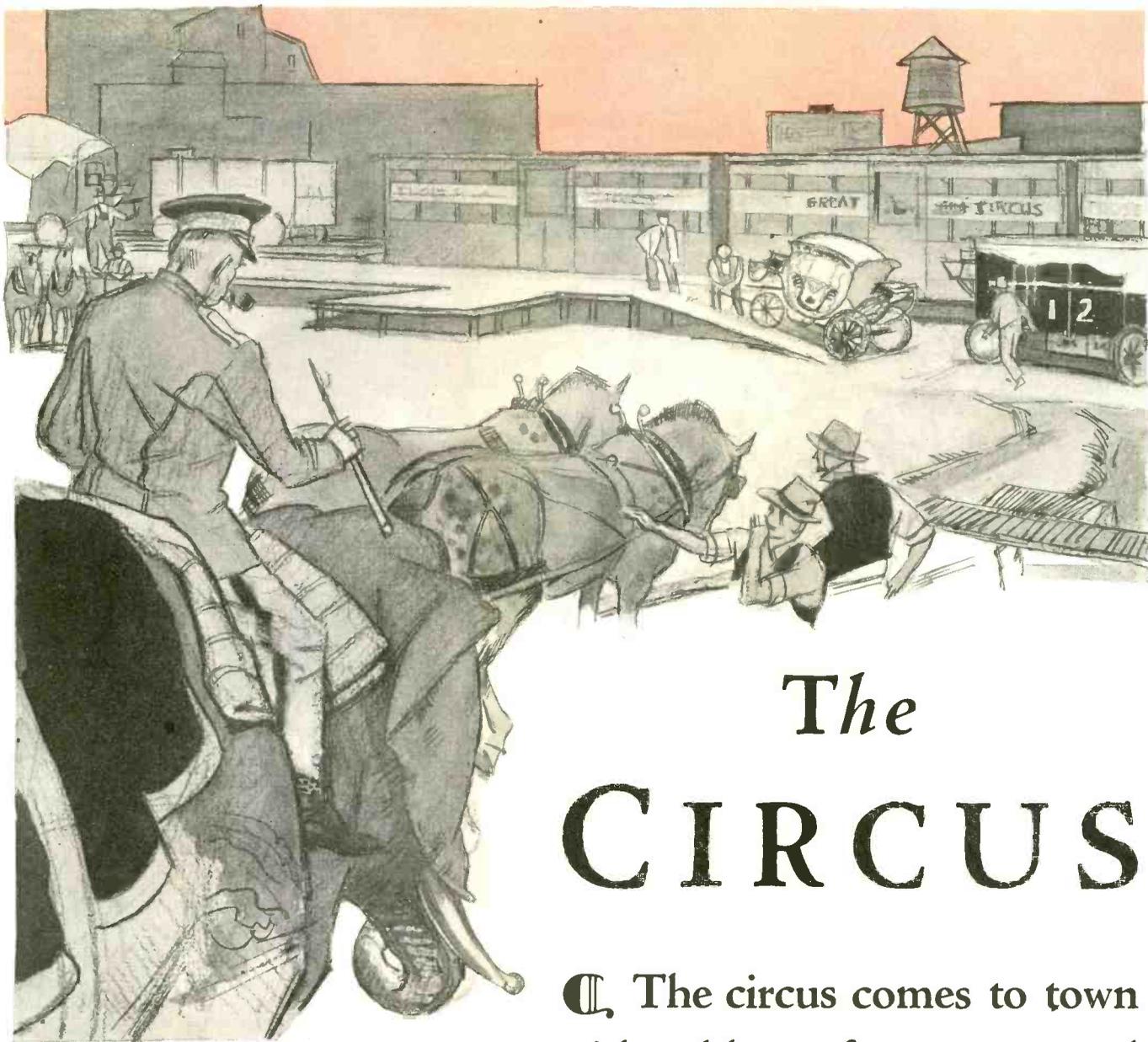
Subsidiary of Splitdorf-Bethlehem Electrical Company

NEWARK



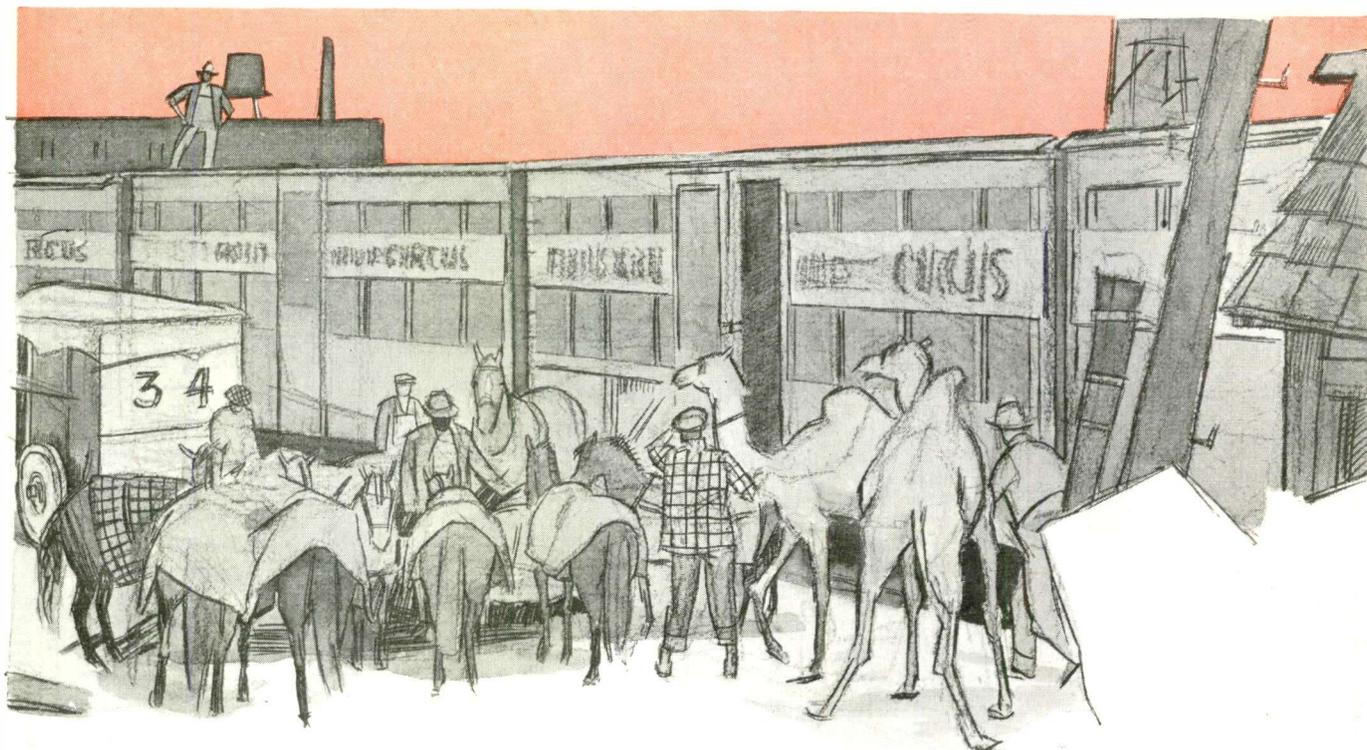
NEW JERSEY

* there is a reason for this instant success-write for it.



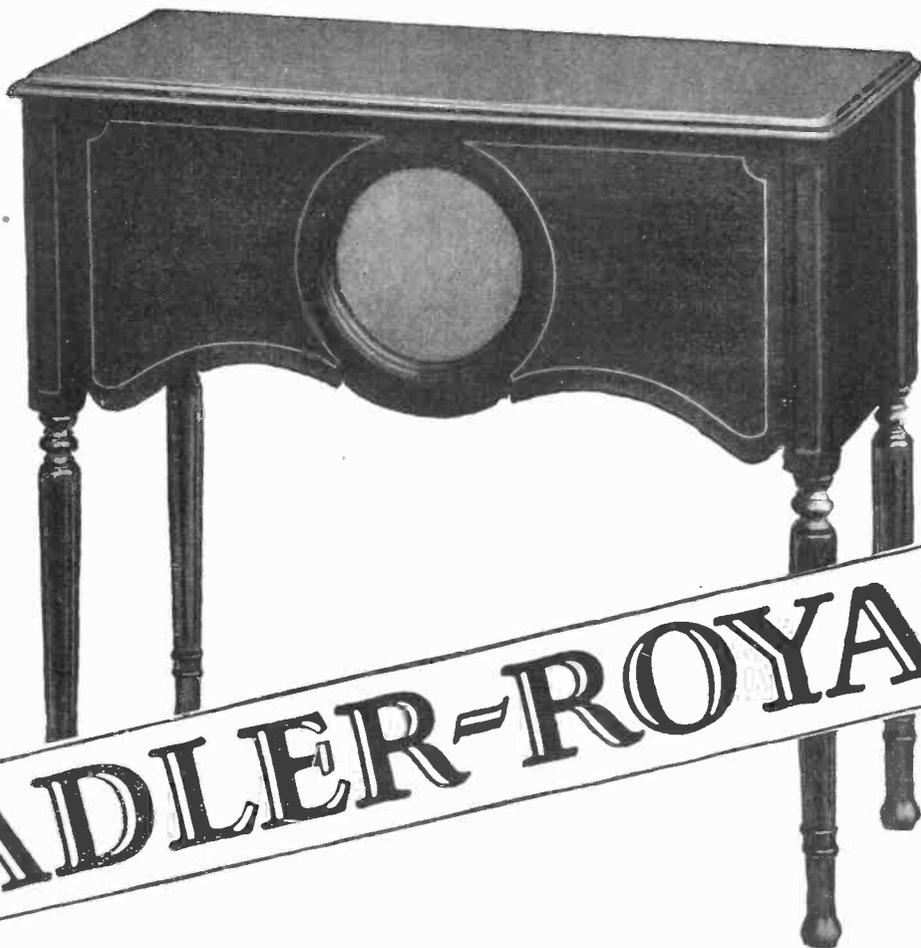
The CIRCUS

¶ The circus comes to town with a blare of trumpets and the smell of sawdust. ¶ Everything is absolutely the very *biggest, greatest, newest, most wonderful, sensational and astounding*. ¶ That night the circus leaves town—it doesn't have to stay and make good! ¶ During the past years of radio development many names have flashed like a skyrocket and soon vanished for evermore. ¶ They had "circus" plans, but the trouble was, they had to stay



Leaves Town!

and couldn't make good. The dealer was, in most cases, the "goat." ¶ Of the enduring names in radio, Kolster is today outstanding and made so by adherence to the basic principle that a successful business can be built only on confidence. ¶ This confidence has resulted in continuous growth for Kolster Radio and will add thousands of new Kolster users this year. ¶ The Kolster dealer is assured of sound, progressive methods backed by finance, engineering and merchandising.



Model 201

Adler-Royal Table with R.C.A. 100-A Speaker. Height 28 $\frac{3}{8}$ inches, width 30 $\frac{1}{4}$ inches, Depth 14 inches. For use with Radiola 17, Atwater Kent 37, Crosley and other standard A.C. Sets.

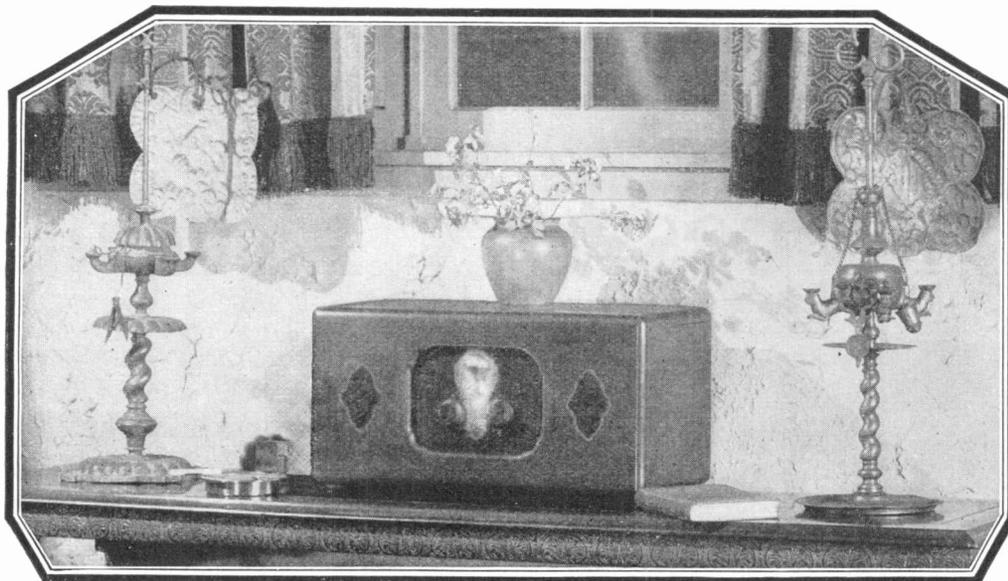
“We are very enthusiastic over your Model 201 Adler-Royal Table Speaker, and believe it to be the finest proposition we have ever seen at the price.”

Thus speaks the Southwestern General Electric Supply Co., of Dallas, Texas—and other Leading Distributors. Read them. *It speeds the sale to say “Cabinet by Adler-Royal.”* Write or wire for details.

ADLER
Manufacturing Co.
Incorporated

LOUISVILLE  KENTUCKY

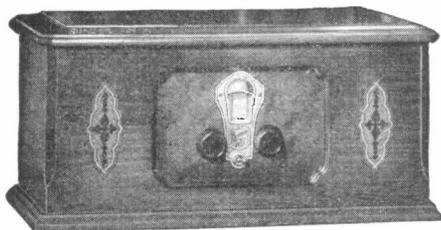
- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Colorado
Hendrie & Bolthoff Supply Co., Denver. | Minnesota
Northwest General Electric Supply Co., St. Paul
Great Northern Electric Appliance Co., St. Paul |
| Connecticut
The Post & Lester Co., Hartford.
Crown Light & Radio Co., New Haven. | Missouri
Mid-West General Electric Supply Co., Kansas City |
| Georgia
Carter Electric Corp., Atlanta.
Cooper Tire & Battery Co., Atlanta
Cooper Tire & Battery Co., Augusta | Nebraska
McGraw Electric Co., Omaha |
| Illinois
Hudson-Ross, Inc., Chicago
Beckley-Ralston Co., Chicago
Central States General Electric Supply Co., Chicago
Radio Distributing Co., Chicago
The Harry Alter Co., Chicago
Illinois Electric Co., Chicago | New York
Stanley & Patterson, New York City
Roskin Bros., Middletown
Times Appliance Co., New York City |
| Indiana
Lake States General Electric Supply Co., Indianapolis | North Carolina
Southern Electric Co., Charlotte |
| Kansas
C. W. Tanner Co., Wichita | Ohio
Lake States General Electric Supply Co., Toledo
Lake States General Electric Supply Co., Columbus
The F. Bissell Co., Toledo
The Erner Electric Co., Cleveland |
| Louisiana
Wesco Supply Co., New Orleans | Oklahoma
Southwest General Electric Supply Co., Oklahoma City
Dodge Electric Co., Tulsa |
| Maryland
H. C. Roberts Electric Supply Co., Baltimore
Southern Electric Co., Baltimore | Pennsylvania
H. C. Roberts Electric Supply Co., Philadelphia
H. C. Roberts Electric Supply Co., Reading
Raymond Rosen & Co., Philadelphia
Pierce & Phelps, Inc., Philadelphia
Beckley-Ralston Co., Pittsburgh |
| Massachusetts
General Electric Supply Corp. (Formerly Pettingell-Andrews Co.), Boston
F. D. Pitts Co., Boston
Union Electric Supply Co., New Bedford
M. Steinert & Sons Co., Boston
Wetmore-Savake Electric Supply Co., Boston | Rhode Island
Union Electric Supply Co., Providence |
| Michigan
Beckley-Ralston Co., Detroit | Texas
Southwest General Electric Supply Co., Dallas
Southwest General Electric Supply Co., Abilene |
| | Virginia
Southern Electric Co., Richmond |



New Dealer Orders Twenty-five!

Bremer-Tully

6-40
Making Radio History



The 6-40 is for A.C. use only—compact, simple, efficient—6 tubes—one drum dial indexed in large figures in kilocycles—illuminated by a protected pilot light. Furnished in two attractive cabinet styles—Model "R" illustrated at the top of the page and Model "S" illustrated above—both of equal size—small enough to fill the requirements of limited space, but large enough for exceptional performance.

On the air every Tuesday
"Bremer Tully Time"

7:30

W. G. N.

A Bremer-Tully distributor reporting on the new A.C. 6-40 wires:

"On our first demonstration closed retail account which we have been trying to get for a year and secured order for twenty-five sets."

Other reports from various parts of the country are equally flattering.

Superior performance is responsible! Nowhere, at its price, is the Bremer-Tully 6-40 equalled for quality of musical reproduction. In general performance as well, it excels.

You have only to make comparisons to prove these things to yourself.

A Complete Line

The Bremer-Tully line now offers the dealer his greatest opportunity—five A.C. models from \$130.00 to \$365.00—a radio for every purse and purpose.

The franchise may still be available in your community. The coupon will bring details and copy of our 64 page booklet, "Better Tuning."

Bremer-Tully Manufacturing Company

PIONEERS OF BETTER TUNING
520-532 So. Canal St.
Chicago



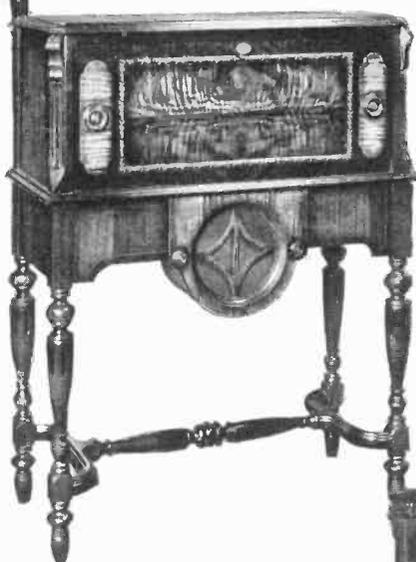
Name
Address
City State.....

Here's the Solution of Your Accessory Problem!



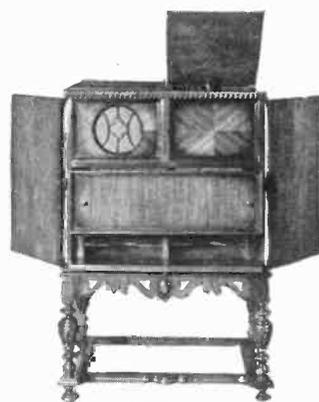
THE MADRID

Made in walnut and mahogany finishes. Contains RCA 100-A Speaker. Accommodates any radio set. Height 29"; width 30".



THE SEVILLE

Butt walnut front, attractively overlaid in rippled maple. Equipped with RCA 100-A Speaker. Accommodates all makes of radio sets. Height 42"; width 32".



IMPERIAL

Combination PHONO-RADIO Cabinet. Handsome, massive walnut cabinet. Striped walnut veneer front with maple overlay. Equipped with spring motor or GE Electric Phonograph Motor and Cone Speaker. Efficient electric pick-up. Sliding drawer accommodates any radio set. Special compartment for records. Height 50"; width 32".

Wasmuth-Goodrich Radio Furniture

is made by masters of the wood-working craft; conceived by men who *know* 1928-29 requirements. The modern replacement for your dwindling accessory sales—ready now, for this week's business!

We shall present new designs and new goods as often as the basic demands of the industry justify or require. Careful distribution through wholesalers of approved standing—wholesome merchandising methods and liberal discounts—these mean quick turnover and greater profits for you!

The coupon is for your convenience—mail it NOW!

SYMPHONIC SALES CORPORATION
370 Seventh Avenue, New York

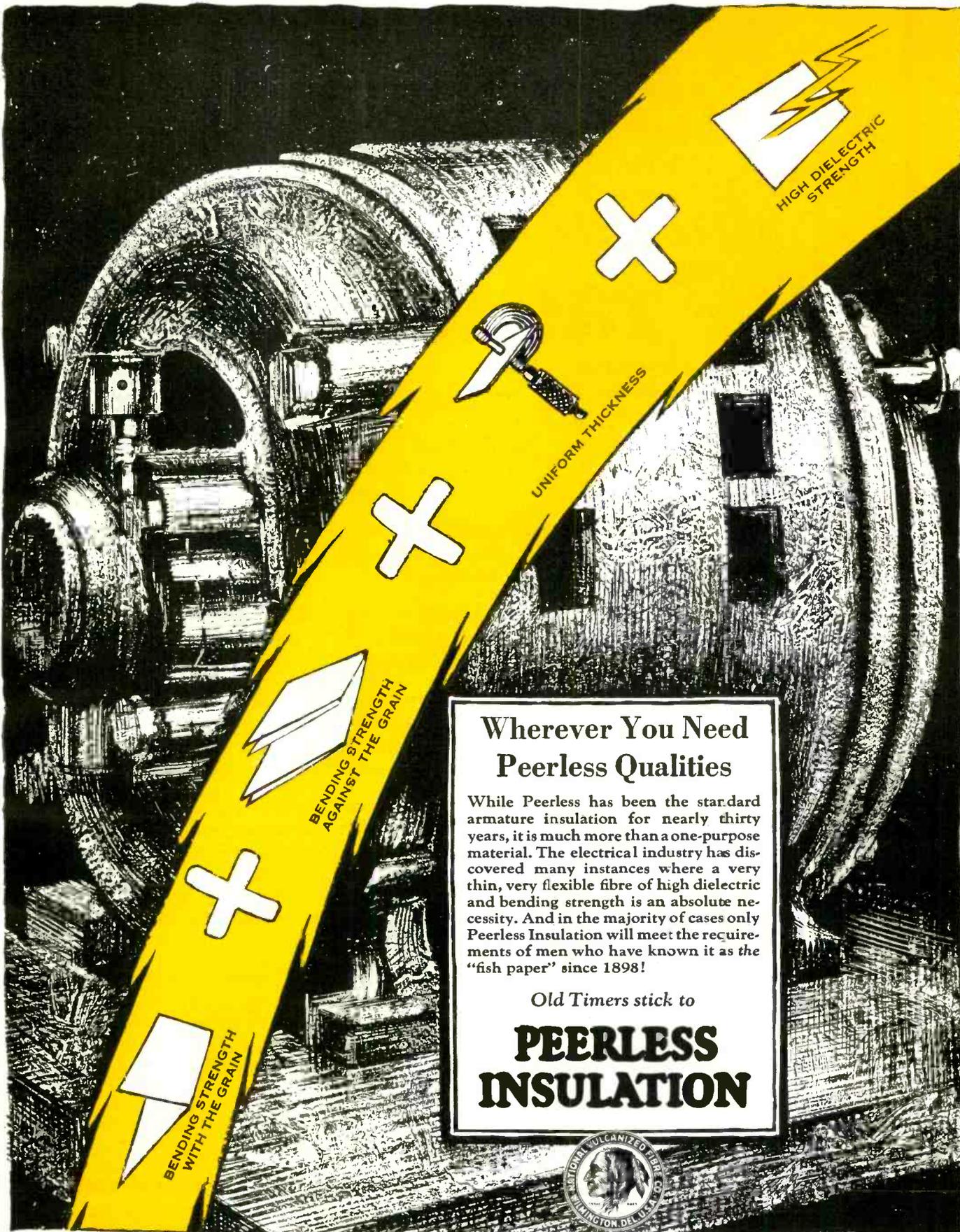
Symphonic Sales Corporation
370 Seventh Avenue, New York

Please send me detailed description; list prices and discounts on the new Wasmuth-Goodrich Radio Furniture.

Name

Address





**Wherever You Need
Peerless Qualities**

While Peerless has been the standard armature insulation for nearly thirty years, it is much more than a one-purpose material. The electrical industry has discovered many instances where a very thin, very flexible fibre of high dielectric and bending strength is an absolute necessity. And in the majority of cases only Peerless Insulation will meet the requirements of men who have known it as the "fish paper" since 1898!

Old Timers stick to

**PEERLESS
INSULATION**



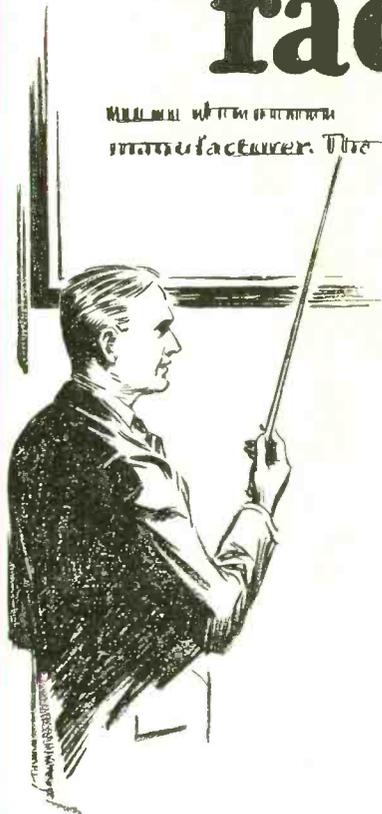
NATIONAL VULCANIZED FIBRE CO., Wilmington, Del., U. S. A.

Makers of laminated insulation since 1873

Offices in Principal Cities

There's **one**

straight answer to all this
“radio talk”



The industry is alive with talk today. Retailers, wholesalers, manufacturers—everyone is discussing radio and the radio market.

All recognize, in A. C., the basis of permanence and increased demand. All unite on the expanding future for radio.

But through all this talk, there is one note that stands forth pre-eminent in demanding recognition. It goes beyond the mere mechanics of radio.

It gets right down to fundamentals—places a detecting finger upon the one great underlying factor, which, more than any other, will ultimately govern any dealer's permanency and success in selling radio.

That factor is tersely summed up in the answer to this question: "Who is the manufacturer?" Find the right manufacturer! That is the first step. When you find the right manufacturer, you'll have the right radio. You'll have the right proposition. You'll have the right assurance of a lasting connection on which you can safely build.

The position of Stewart-Warner is unparalleled in the field of radio. Think for a moment. How many of today's trade names in radio pre-date the birth of broadcasting? How many carry with them a 20-year reputation of stability, achievement, leadership, good will?

How many can point to a history that dates back virtually to the beginning of the automobile? To an experience born of the one great industry which, more nearly than any other, parallels the characteristics of radio?

The name Stewart-Warner—and Stewart-Warner alone—stands for all these things!

The dealer or jobber who ties up with Stewart-Warner will never have an "orphan" radio on his hands. He will have no unpleasant memories to live down or forget. He can build his business with confidence that he will be selling Stewart-Warner Radios five years, ten years, fifteen years hence.

And, knowing Stewart-Warner's outstanding record in merchandising and advertising, he can depend upon Stewart-Warner to lead the way with common-sense, intelligent merchandising assistance.

Radio has come to stay. You are in business to stay. And Stewart-Warner is in radio to stay. Here, then, is the perfect opportunity for a permanent and profitable union.

Our facilities for radio production have again been enlarged. We are looking for more dealers of the right type. You should know about the Stewart-Warner proposition. Don't delay. Write or wire for details today.

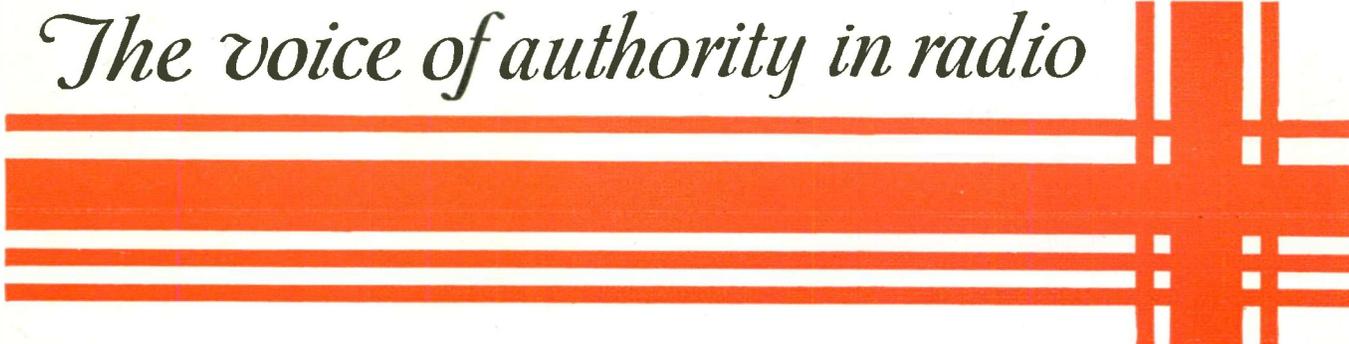
20 years in business—50 million dollars in resources—4th successful radio year

STEWART-WARNER SPEEDOMETER CORPORATION
CHICAGO U. S. A.

*A. C. or D. C.—
Stewart-Warner has them
both. Now you can an-
swer every radio demand!
The time is here to go out
and sell! People in your
community are waiting
to buy! The biggest radio
spring, the biggest radio
summer, the biggest radio
year is here, this year,
for dealers who go ag-
gressively after business!*

STEWART- WARNER

The voice of authority in radio



“For jobbers and dealers who want to make money on the sound basis of high quality merchandise, we have an interesting proposition.”

Paul C. Hittman
President



WHEN we announced La Salle HIGH-VACUUM Radio Tubes to the trade we specifically promised protection through a strict jobber-dealer policy. That promise is now well understood and appreciated by the best jobbers and dealers throughout the country.

Their orders tell us how they feel towards La Salle HIGH-VACUUM Tubes and definitely proves that La Salle HIGH VACUUM quality makes good with their customers.

Dealers and jobbers who are interested in high quality tubes are invited to write for complete information.

Manufacturers

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

Sole Distributors

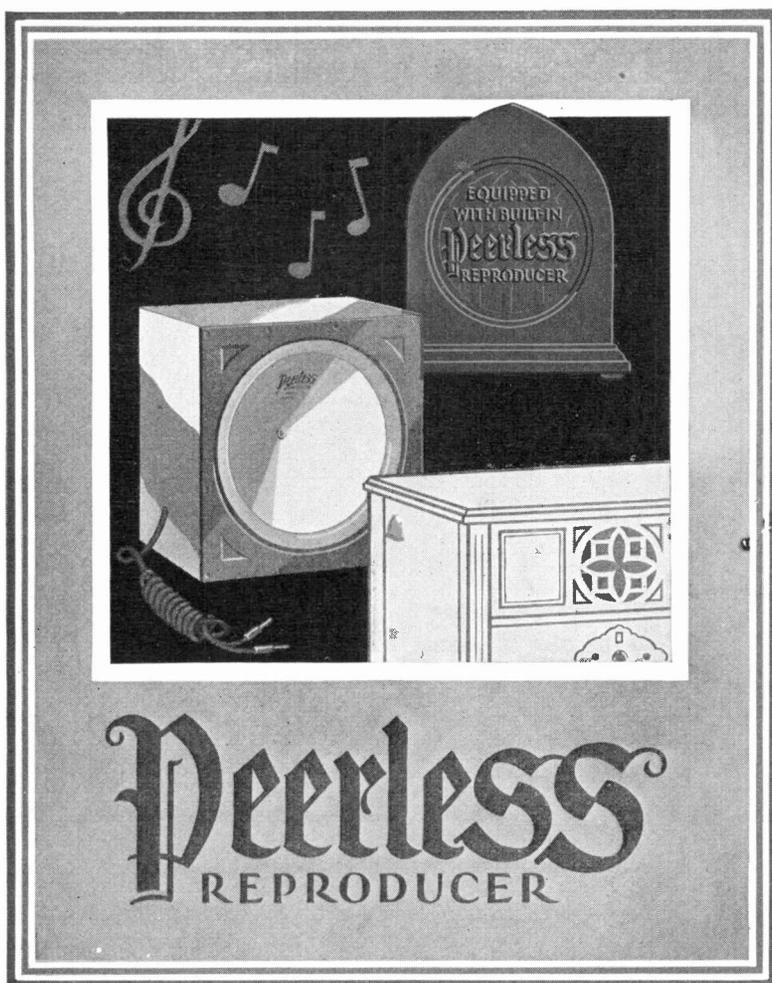
MATCHLESS ELECTRIC COMPANY
145 West Austin Avenue, Chicago, Illinois

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

*Other Standard Types
for Battery Power*

La Salle

HIGH-VACUUM TUBES



The Peerless Built-In Reproducer (Model 7-B) is also sold through jobbers and dealers to supply set Re-builders who wish to modernize their radios.

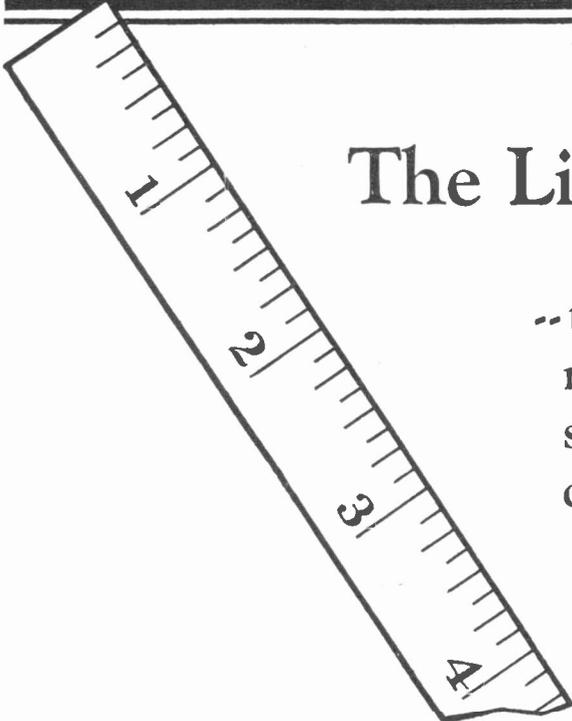
WORTH LOOKING FOR!

THE famous Gothic Cabinet of the Peerless Reproducer (7-A) is known wherever radio is sold. More people bought Peerless last year than any other independent speaker. It makes any radio better. *Sells itself by simple comparison!* Price \$35. Sold through jobbers.



THIS bronze medallion, scarcely larger than your thumb-nail, is a trustworthy index of QUALITY. You will find it on the side or back of Radio Sets into which the makers have built Peerless 7-B Reproducers. They buy Peerless to match the perfection of their own product. And pay us a premium for our Quality. They secure the same sturdy Peerless chassis, the same RANGE, the same ability to stand VOLUME—that has made Peerless Reproducer the fastest selling independent Speaker in America. A symbol worth looking for!

UNITED RADIO CORPORATION, 15 CLARISSA ST., ROCHESTER, N. Y.



The Line that Measures Up--

--to the standard you set for
radio in your own home
should be a profitable
one for you to sell--

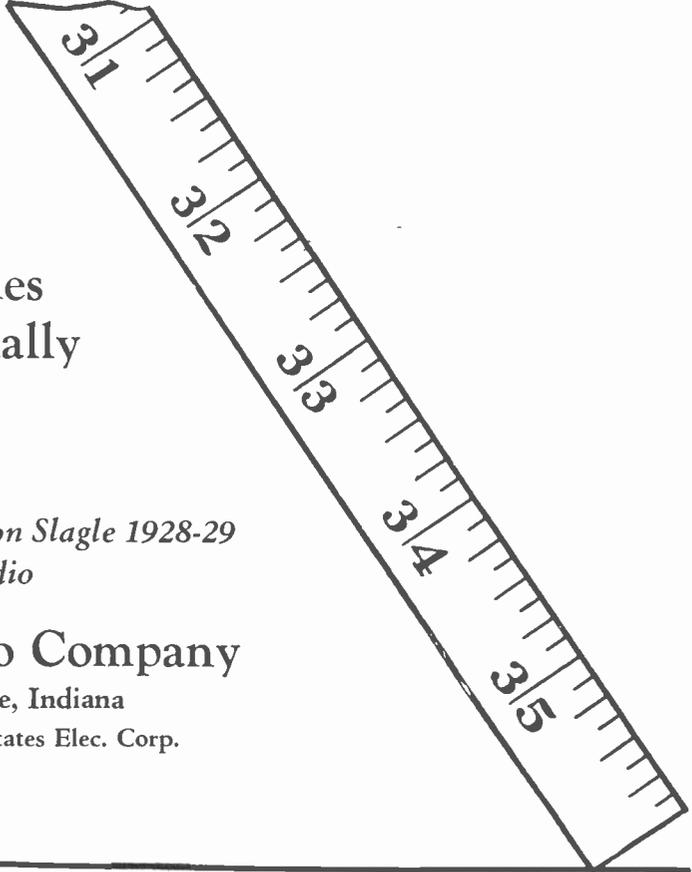


Slagle Radio

--especially if inves-
tigation shows the sales
and merchandising policies
behind the line to be equally
right.

*Ask for the facts on Slagle 1928-29
Radio*

Slagle Radio Company
Fort Wayne, Indiana
Div. of United States Elec. Corp.



VOLTAGE SURGES

*Deadly as a
Serpent's
Fangs!*



Play Safe With **PARVOLTS!**

VOLTAGE Surges in electric-powered radio strike at filter condensers with the lightning speed and deadly power of a venomous snake.

Imperfect condensers, improperly rated condensers, non-uniform condensers—all break down sooner or later under the destructive action of voltage overloads. Blown condensers usually mean blown tubes, burned out transformers and chokes and even the destruction of speaker units.

Why take chances with ordinary condensers when ACME PARVOLTS give you positive protection?

These condensers are made only

from highest grade insulation papers and special foils. Every detail of manufacture is under the constant supervision

of experts who have devoted many years to the manufacture of condensers for heavy and continuous industrial duty.

Every PARVOLT is tested to R.M.A. and N.E.M.A. standards and can be relied upon for accuracy and CONTINUOUS DUTY. Sold by leading jobbers and dealers.

Made by THE ACME WIRE CO., New Haven, Conn., manufacturers of magnet and enameled wire, varnished insulations, coil windings, insulated tubing and radio cables.



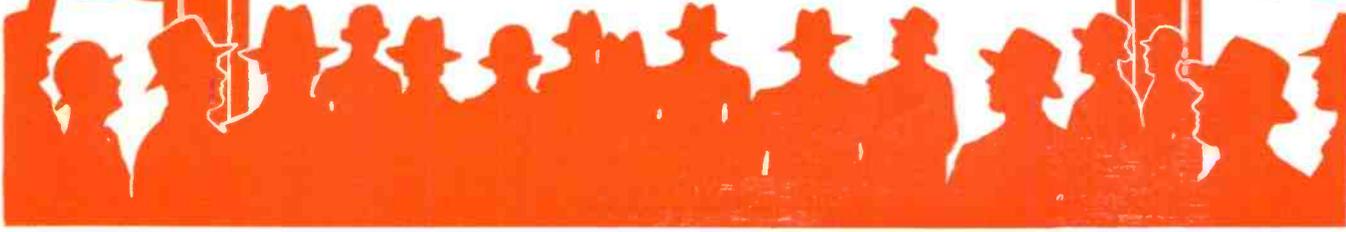
ACME PARVOLT FILTER CONDENSERS are available in all standard volt. capacities for 250, 400, 600, 800, 1000, and 1500 Volt D.C. requirements. Use firm bolts and washers for easy handling. Serrated washers in complete hook-up kits for the important power supply units such as Thermostat, Sams and others. ACME PARVOLT BY-PASS CONDENSERS are supplied in all standard mfd. capacities and for all required voltages.

ACME PARVOLT CONDENSERS *Made by the Manufacturers of* ACME CELATSITE HOOK-UP WIRE

**ENAMELED
AERIAL WIRE**
Enameled copper wire in both stranded and solid types. Also Acme Lead-ins, Battery Cables, Induc and Loop Aerial Wires.

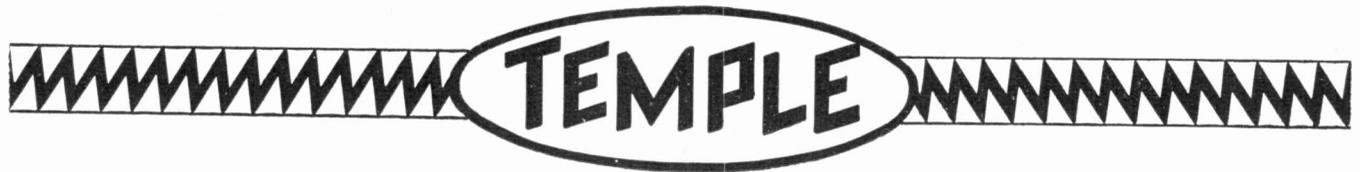
**CELATSITE
FLEXIBLE and SOLID**
For all types of radio wiring. High insulation value, non-inflammable, 10 colors.

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

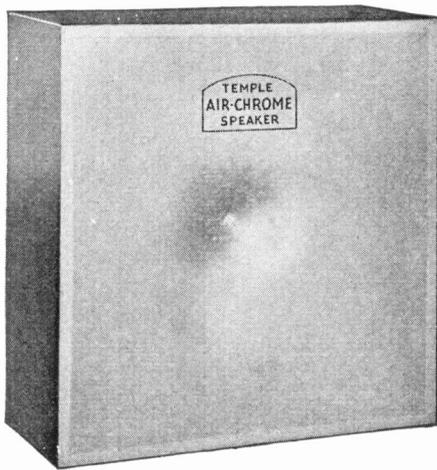


The Whole Radio World Is Reading PARVOLT Advertising!

Write Your Jobber Today for Our 1928 Proposition



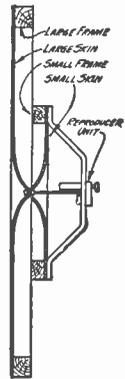
New Air-Chrome Speakers Added to Temple Line



The Air-Chrome principle, while it is new, is so logical that the efficiency of this type of construction is readily appreciated. In Air-Chrome construction there are two diaphragms instead of one—tightly stretched skins of chemically treated airplane linen. The centers are brought together to a point where the tension is naturally balanced. At this balanced center the driving unit operates and as there is no dead weight to overcome because of the balanced feature it is easy to understand how the slightest impulse on the driving unit is instantly transmitted to the taut diaphragms. The result is a sensitivity, a frequency response and a handling capacity in undistorted volume that is a revelation in speaker design.

THE new Temple Air-Chrome represents one of the most startling speaker developments that the industry has seen. It couples Temple engineering and experience in speaker manufacturing with one of the most advanced principles ever developed in sound reproduction. This rounds out the Temple line—it enables you to sell, on the one hand, the justly famous Air Column models and on the other hand, a line of speakers of the double action, open radiator type which bids fair to displace all existing models of the cone type of reproducers.

The Temple Air-Chrome speaker is licensed under the Air-Chrome inventions and is of the balanced tension open radiator type. This advanced principle of design plus the special developed powerful Temple Double Action Unit results in the tremendous handling capacity—enormous volume—round, natural tones in all frequencies. Further, the Temple Air-Chrome speakers are of substantial construction—they are not affected by climatic changes—ordinary abuse will not affect their ability to function properly.



Three models of the manufacturers type of Air-Chrome speaker are now available. They will fit almost any cabinet or console requirements for size. These will be followed immediately by two standard models—one being a small "clock type" Air-Chrome and the other a cabinet or radio table type. The sizes of the available manufacturers type models are as follows:

Size	Depth	Price
14" by 14"	7 inches	\$20.00
18" by 23"	8½ inches	23.00
24" by 24"	9 inches	25.00

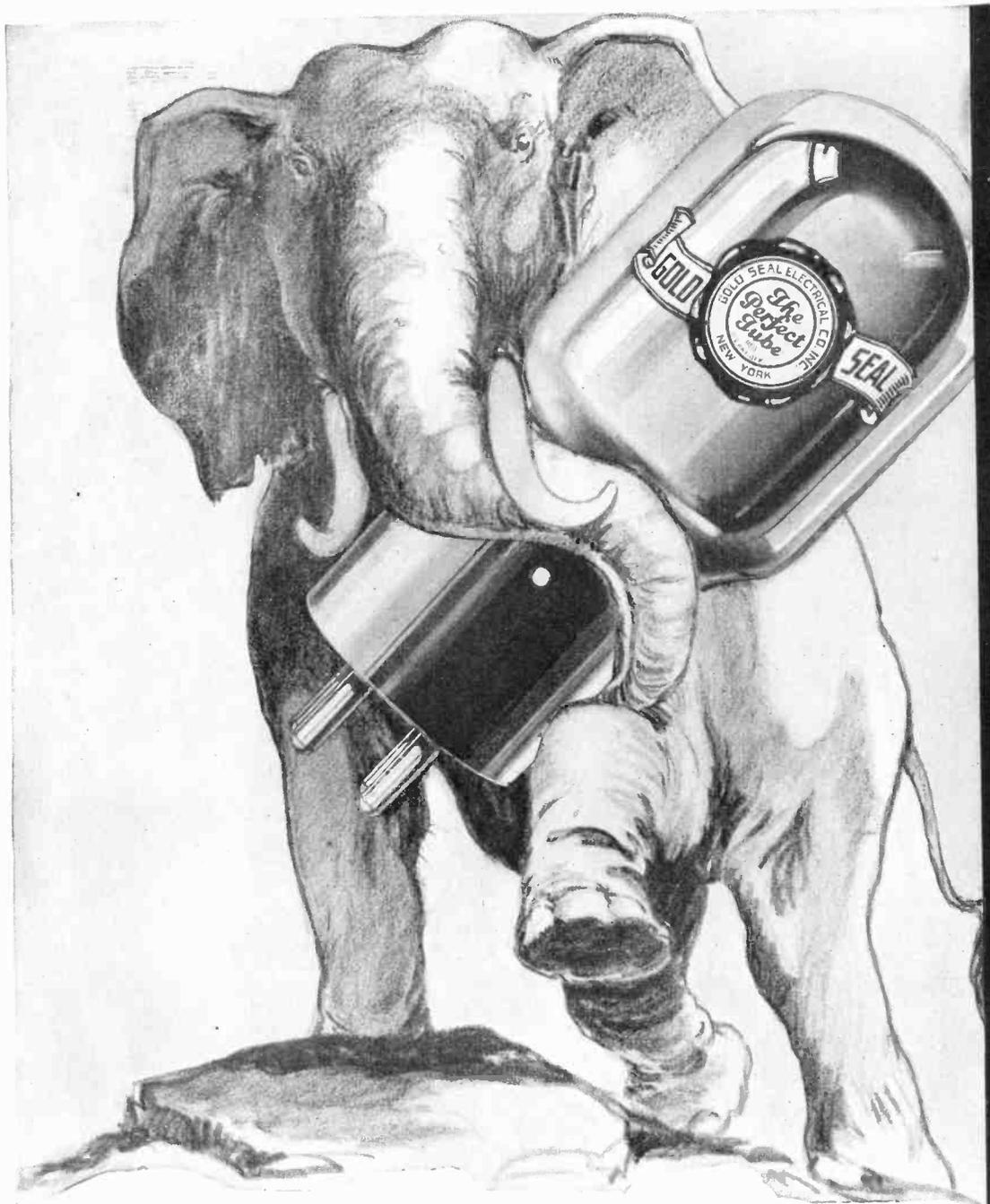
The Temple line of speakers is moving now—and will be one of the fastest moving lines of the coming season. You owe it to yourself to investigate the Temple line thoroughly. And, Temple speakers have merit. They will sell in any kind of a competitive demonstration—for Temple has gone so far as to market a Comparator for this very purpose. Isn't that a whole-hearted belief in the merits of your own product?

Air-Chrome Division

TEMPLE, Inc.

1925 S. Western Ave., Chicago, Ill.

LEADERS IN SPEAKER DESIGN



—the Tubes that Sell!

GOLD SEAL provides you with *all* the advantages—the popularity of the product has been built up by quality in manufacture and by effective national and local advertising—the dealer and jobber are given every up-to-date selling aid that they may profit to the fullest from the public acceptance of Gold Seal as “the brand they want when they want tubes.”

The Gold Seal Policy is “the Square Deal and *co-operate to the limit.*”

It will pay you to write for particulars.

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

Gold Seal A.C. Tubes can be used with all standard A.C. Harnesses.

Gold Seal
Radio Tubes

All Standard Types



GSX 281
Half Wave Rectifier
List Price \$7.50



GSX 280
Full Wave Rectifier
List Price \$6.00



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



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



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

**Any Radio Sells Better In
A Cabinet By Radio Master**

RADIOLA 16 · ATWATER KENT · CROSLEY · KOLSTER
 FREED-EISEMANN · FADA · BOSCH · SONORA
 STEWART · WARNER · GREBE · FRESHMAN

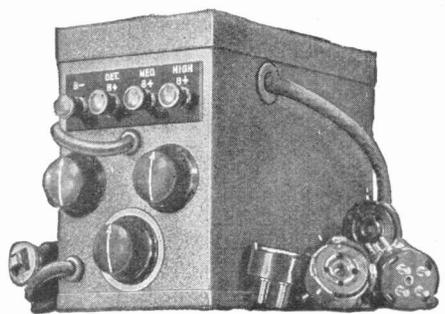
and 30 other popular makes of radios

Convert them All to AC Operation!

Complete "A-B-C" for sets using AC Tubes

Sterling Tri-Power sales are outstripping all competition because of these features which quickly adapt the unit to any set—variable "B" voltages; "A" voltage regulation to protect overloading filaments where AC line voltage is high; complete—no extra mid-tap resistors or by-pass condensers or "C" bias needed. All are built into the unit. Standard AC cable-adapters are furnished or installation is quickly made to re-wired AC sets.

These units offer you big profits. Write your jobber or us direct. Do it now. Every minute counts.



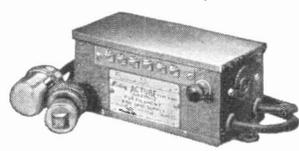
AC TRI-POWER For AC Tubes

The Complete "A-B-C" for All 5-7 Tube Sets

List Price, Model R-810, 115 volt 60 cycle	\$32.00
Model R-809, 115 volt, 25-40 cycle	37.00
BH Raytheon Tube	4.50
Special harness with adapters	6.00

This Complete AC Tube Transformer

Requires no mid-tap resistors, no by-pass condensers, no "C" bias. They are all built in. Added to any good "B" supply you get perfect AC tube conversion.



List prices, Model 850 115v 60 cycle	\$14.50
849 115v 25-40 cycle	16.00
Harness with AC Tube adapters	\$6.00 to \$8.00

Complete "A-B-C" for sets using DC Tubes

In the face of the popularity of AC tubes Sterling "Dri-A" Power Units, "B" Units and "B-C" Units, also Radiola "A" and "B" Power Teams continue to sell and sell big. Why? Because they have proved themselves most satisfactory to owner and dealer alike. They give tone quality and are free from service troubles. Constantly increasing sales prove it.

Thousands of owners of DC sets want reliable, light socket—all electric radio—and they want to keep their DC tubes. *They want Sterling.* There is a Sterling unit for every set and every pocketbook.

- "Dri-A" Power with Tungar Bulb, R-93 \$39.50
- "B" Power with Raytheon Tube, R-81 28.50
- "B-C" Power Heavy Duty Model with Raytheon Tube, R-98 38.00
- "A" and "B" Power Team for Radiolas, R-94 and R-41 59.00

STERLING AC LINE TESTER



More than ever, since AC tubes have been so widely adopted, varying AC line voltages present a real problem to radio service men. Every installation of an AC receiver should be checked and "A" voltages adjusted accordingly. This Sterling AC Voltmeter, specially designed for AC radio work tests AC circuits up to 150 volts. Compact—rugged. R-417. List price . . . \$7.50

Sterling

OTHER AC PROFIT-MAKERS

- R-509 AC Tube Tester for Stores Shows grid performance and tests emission of all tubes. List . . . \$35.00
- R-512 for Service Men—The Universal Tube and Set Tester. Tells you everything you want to know. Portable. Accurate. List 35.00
- Sterling's Latest!*
- the Junior Short Checker, makes the rejection tests of all types—both AC and DC tubes. Also checks filament emissions. Your best insurance is R-514 List . . . 13.50
- Output Transformer, R-360 5.00

THE STERLING MANUFACTURING COMPANY · CLEVELAND, OHIO

Majestic

in 30 days will announce

the greatest line of
quality all electric radio
receivers that years of radio
power leadership can produce,
at the lowest prices ever
placed on merchandise
of this character.

when you see them
when you hear them
when you price them

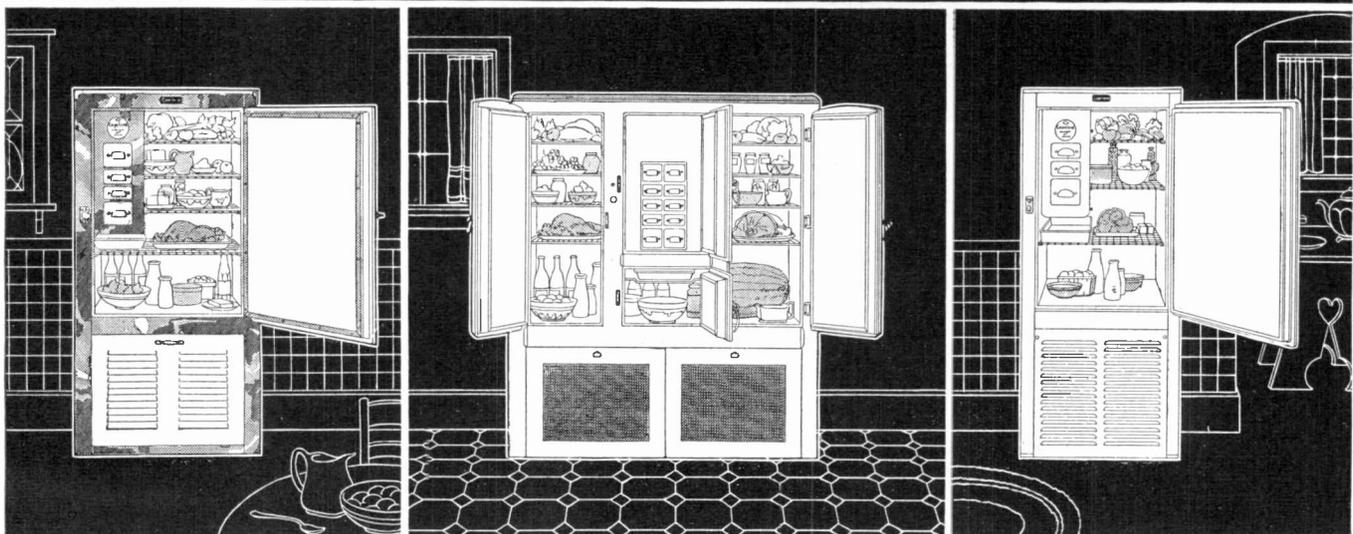
You'll Know!

GRIGSBY - GRUNOW - HINDS CO.
4540 Armitage Ave. Chicago, Ill.

COPELAND GOES FORWARD

Copeland

DEPENDABLE ELECTRIC REFRIGERATION



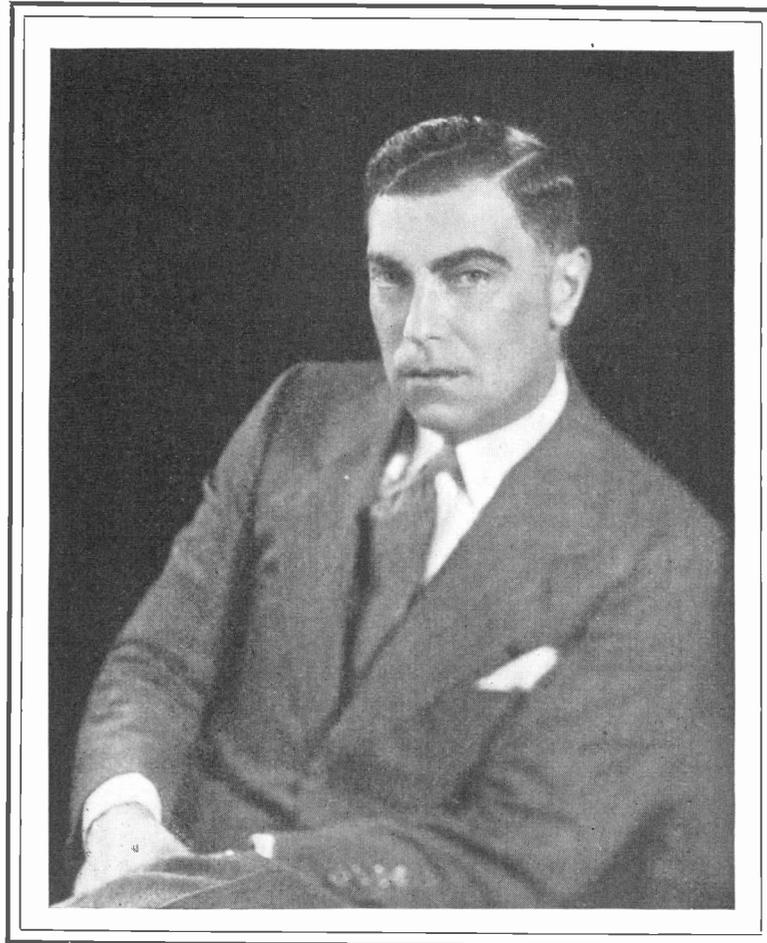
—new complete lines, optional colors, models for *every* purpose!

Copeland's sales opportunity is now actually unlimited—a low-priced line of domestic electric refrigerators, 5 to 9 cubic feet, \$195 to \$365; larger, all-porcelain models; a brand new and complete line of De luxe models *in optional color trims*; all sizes of separate units for present ice boxes; new line of multiple hook-up for apartments; new developments in commercial refrigeration. ☼☼ The time was never more opportune for making money in electric refrigeration than *right now!* And no products will allow you to cash in on this money-making opportunity more quickly, more surely and more profitably than the present Copeland line! ☼☼ We need a few more good distributors, and some dealer territories are still available. We will tell you the whole story and you can decide for yourself. Write us today, defining the territory you would like to handle. Or send us a wire. Or use the attached coupon.

MAIL THIS COUPON
Copeland, 630 Lycaste Ave., Detroit, Mich.
I am interested in learning more about
the 1928 Copeland franchise.

Name _____
Address _____
City _____ State _____ R.R. 4 _____

The new President of SONORA is gathering Men!



NO business despite its millions of money, despite its revolutionary products like the wonderful new Sonoras, can hope to rise higher than the abilities of the men who command it and who serve it.

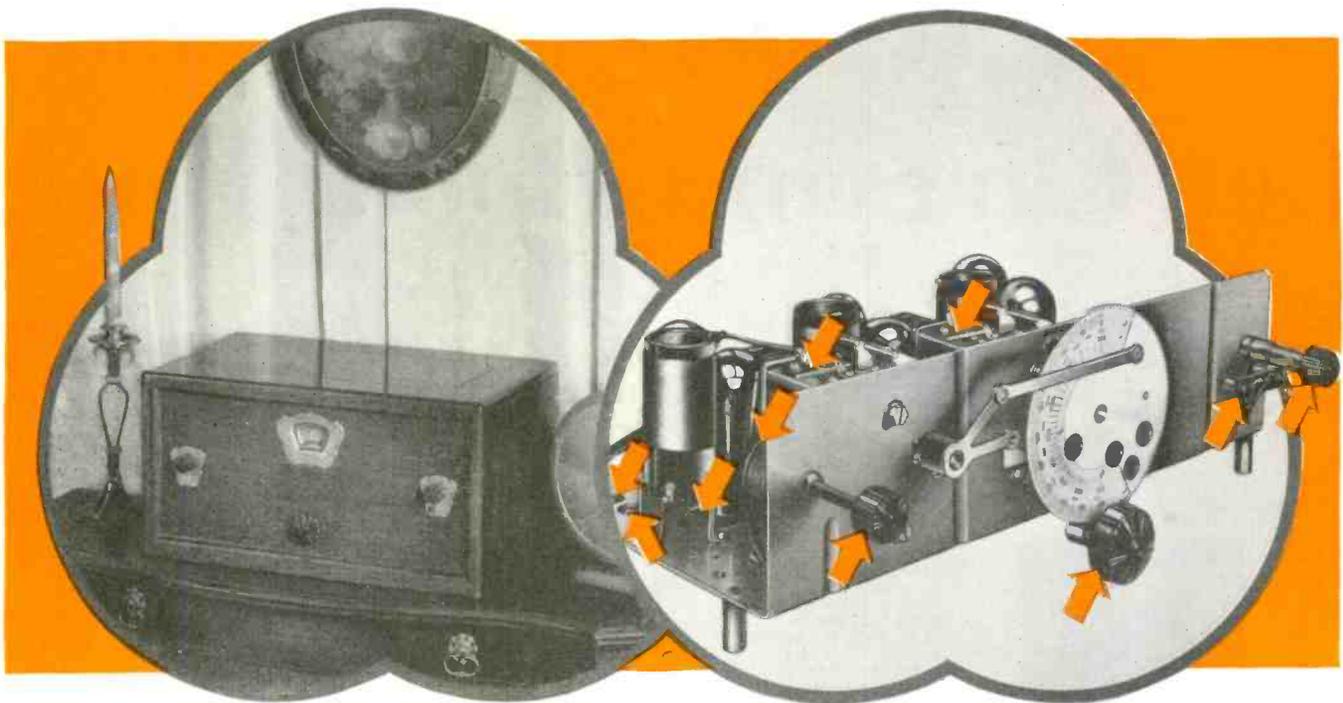
You have probably heard of the vast and far-reaching plans of Sonora, you have perhaps, heard of its millions of life-giving money—and you may have heard of its astounding new improvements and products and its new plans

in the interest of dealers the whole land over.

But the last and greatest guarantee of its future is the new man-power Sonora is assembling. Some of our new leaders are with us now, others are soon to be announced. Watch for the most important announcement of personnel in next month's issue of this publication.

P. L. Deutsch, the new president of Sonora is gathering men. And he is gathering dealers too. The Sonora Snowball has started to roll.

Sonora 



Stewart-Warner radio receiver insulated with Bakelite Materials. Made by Stewart-Warner Speedometer Corp., Chicago, Ill.

Bakelite Materials are used to insulate and to beautify Stewart-Warner Receivers

AT various points where high insulation value is essential, and failure would be fatal to good reception, the Stewart-Warner receiver is insulated with Bakelite Laminated. It is an insulation which is immune to the ravages of time and in any climate will not deteriorate with age or use.

Bakelite Molded is used for the tuning and amplifying knobs because it is an insulating material possessing a rich color and high lustre, in keeping with the fine

cabinet work of the receiver. Both color and lustre last indefinitely and are unharmed by frequent handling.

The use of Bakelite Materials is a protection against troubles due to faulty insulation, one which benefits the dealer as well as his customers. Service calls are decreased and customer good will enhanced. It pays to make sure that the radio sets and parts which you sell are Bakelite Molded. Write for Booklet No. 39, "Bakelite in Radio."

BAKELITE CORPORATION

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

BAKELITE

REGISTERED



U. S. PAT. OFF.

THE MATERIAL OF A THOUSAND USES

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



Let Carryola Boost Your Summer Profits



Carryola Master

Audak Ultra (phonic) reproducer—curved, throwback tone arm of Bakelite—tone chamber filled with neotype meta-grill. Motor built by The Carryola Company of America. Furnished in black, brown, blue, green or red Fabrikoid with velvet covered turntable, embossing and air brushing to harmonize—handsome nicked fittings.

\$25.00 LIST
East of the Rockies



Carryola Lassie

Flat-type portable, furnished in black, blue or brown Fabrikoid. Latest design curved, throwback, die-cast tone arm. Equipped with Audak reproducer. The only portable phonograph in its price class that has all these exclusive quality features.

\$15.00 LIST
East of the Rockies



Carryola Electric Pick-Up

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

\$10.50 LIST
East of the Rockies

Carryola is backed by the biggest advertising campaign ever seen in the portable phonograph industry. Starting with a page and a half in Liberty and followed by full pages in The Saturday Evening Post and Liberty, this campaign will tell nearly five million people the story of Carryola quality again and again throughout the year.



GET ready now for Summer business. Get your share of the big profits that are going to be made on Carryola portables and Carryola pick-ups this year.

Every one of your customers that has bought a radio during the Fall and Winter is now a live prospect for a Carryola pick-up—and probably a Carryola portable as well.

Get that business! Stock Carryola now. Get the full benefit of the big national advertising campaign that is telling over four and a half million people about Carryola.

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

THE CARRYOLA COMPANY OF AMERICA

647 Clinton Street, Milwaukee, Wis.

Carryola Porto Pick-Up

Same as Electric Pick-Up with the addition of motor and turntable enclosed in neat Fabrikoid box.

\$23.50 LIST
East of the Rockies



Carryola



New List Price
\$10.50
 for
 Either Battery or A. C. Model

The fastest selling
 radio-phonograph
 accessory
 on the market

Every time you sell a Radio or
 Phonograph—sell a
 Pacent

PHONOVOX

THE Electric Pick-up

WITH the addition of the *new* A.C. model Phonovox to your stock—*every* radio owner—*every* purchaser of a radio set, whether battery or A.C. tube operated—is a live prospect for one of these outstanding phonograph pick-up devices.

Summer months are big sales months for the Phonovox. The superb tone quality, greater volume and wider range of **ELECTRICALLY** played phonograph records, make this new, inexpensive and more enjoyable form of music rendition the popular summer pastime when good radio reception is uncertain.

Make sure you have the new A. C. model in stock for use with UY227 or CY327 A. C. tube sets. Order a stock from your jobber. If he can't supply you, write us at once.

PACENT ELECTRIC CO., Inc.

91 Seventh Avenue, New York

Makers of the famous Pacent Balanced Cone

Manufacturing Licensee for Great Britain and Ireland:
 Igranic Electric Co., Ltd., Bedford, England



Durham

Resistors for Every Power Purpose!

NOW, after three years of experiment and research, International Resistance Co. offers a complete line of resistances for all types of receivers, power amplifiers and accessory radio devices at new low costs which represent important savings.

Durham Resistors are supplied in ranges from 500 Ohms to 10 Megohms, while Durham Powerohms range from 1 to 50 Watts and are supplied with every practical type of tip as illustrated. All are constructed upon the well-known Durham Metallized principle which has been approved in every type of service by the most important set and amplifier manufacturers in the country.

As for years past with Durham Resistors, these modern Powerohms are guaranteed for accuracy and absolute dependability.

Samples and full data with accurate operating curves together with prices, supplied upon request.

- 1 Durham Resistors—500 Ohms to 10 Megohms; standard brass end tip, mould or pigtail type.
- 2 Durham Grid Suppressors—250 Ohms to 3000 Ohms in steps of 100; standard brass end tip.
- 3 Durham Powerohm—1 Watt; 250 to 1,000,000 Ohms; standard brass end tip or pigtail type.
- 4 Durham Powerohm—2½ Watts; 500 to 250,000 Ohms; standard brass end tip type.
- 5 Durham Powerohm—2¼ Watts; 500 to 250,000 Ohms; knife-end type.
- 6 Durham Powerohm—2½ Watts; 500 to 250,000 Ohms; soldered end tapped type.
- 7 Durham Powerohm—2½ Watts; 500 to 250,000 Ohms; screw-end type.
- 8 Durham Powerohm—5 Watts; 250 to 250,000 Ohms; soldered end tapped or screw-end type.
- 9 Durham Powerohm—10 Watts; 250 to 250,000 Ohms; soldered end tapped and screw-end type.
- 10 Durham Powerohm—25 Watts; 250 to 250,000 Ohms; soldered and tapped.
- 11 Durham Powerohm—50 Watts; 250 to 250,000 Ohms; soldered and tapped.
- 12 Durham Mounting supplied in various lengths to carry any required number of Powerohms where quick change of resistance is necessary.

INTERNATIONAL RESISTANCE COMPANY
2½ South 20th Street, Philadelphia, Pa.

DURHAM

METALLIZED

RESISTORS & POWEROHMS

METALLIZED



ABOVE — $\frac{2}{3}$ Actual Size
BELOW — $\frac{1}{2}$ Actual Size

METALLIZED

**Kellogg
goes
forward
not
backward!**

Kellogg Set Arouses Enthusiasm
Francis D. Pitts, head of the F. D. Pitts Co., who has just been out to Chicago, waxes most enthusiastic over the new Kellogg model which is to be ready in June. It is to be known as the Majestic. It is a three-tube set and will be shown in several patterns. The samples are expected here in about three weeks and already dealers are making inquiries about it. President Pitts reports that the February business in Kellogg goods was nearly 25 per cent higher than in the previous month.

**Ridiculous
Rumor
DENIED!**

The above "story" from a widely read business paper, is hereby denied, both by Mr. F. D. Pitts and the Kellogg Switchboard & Supply Company. There is no intention of using the trade name "Majestic"—or of producing a 3-tube Kellogg Receiver.

***New* Kellogg Models
will arouse enthusiasm but
they will not be 3 Tube Sets**

Rumors are flying thick and fast! The whole industry seems to be talking about what Kellogg is going to do.

The Kellogg set-up for Fall 1928 has not yet been announced. But to Kellogg distributors and to the many dealers and jobbers interested in securing the Kellogg Franchise, we may say:

Kellogg will go forward in the future as in the past. Never backward. New Kellogg models will incorporate the very latest developments. They will, of course, be

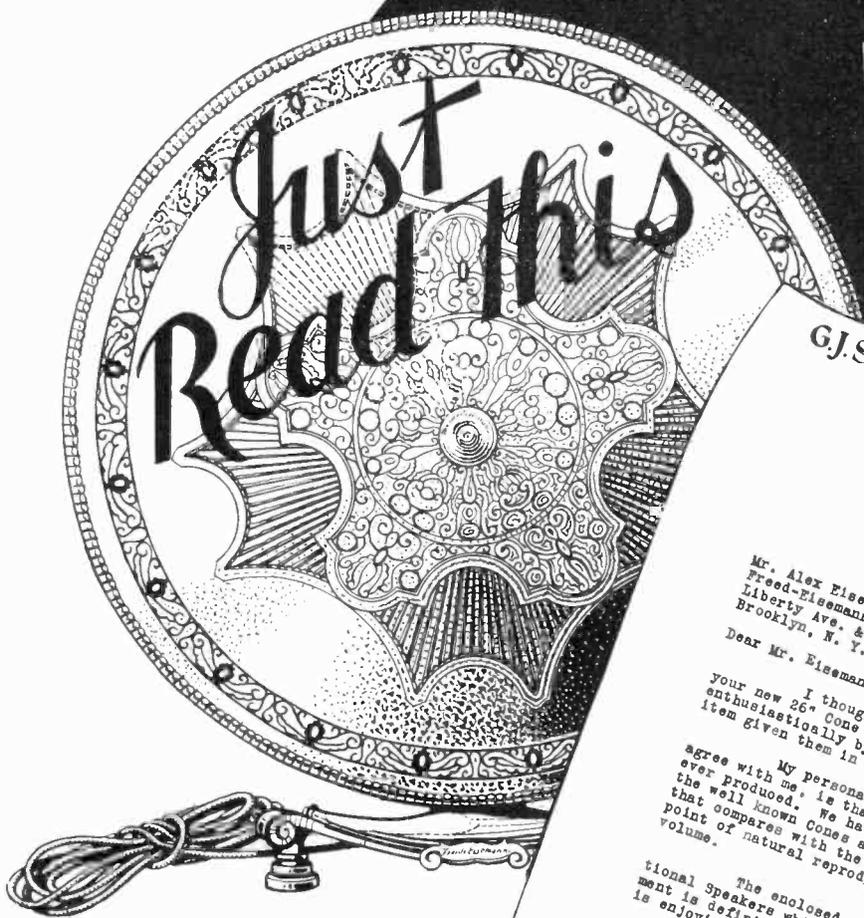
A-C sets, using Kellogg A-C Tubes. They will be sets of unequalled tone quality, as Kellogg sets always have been. They will be outstanding in design VALUES that will insure ready sales and clean profits.

Increased production will make it possible to open additional territory this season. We therefore invite inquiries from jobbers and dealers interested in the distribution of high quality radio.

KELLOGG SWITCHBOARD & SUPPLY CO.
DEPT. 54-74, CHICAGO

**Kellogg
A-C Radio**

A NEW 26 INCH SPEAKER!



LOW NOTES LOW NOTES LOW NOTES

G.J. Seedman Automotive & Radio Co., Inc.
 JOBBERS AND
 Wholesale Distributors
 BEDFORD AVE. at MADISON ST.
 BROOKLYN NEW YORK

March 16th, 1929.
PLEASE ADDRESS REPLY
TO THE BOTTOM OF

G. J. Seedman.

Mr. Alex Eisemann,
 Freed-Eisemann Radio Corp.,
 Liberty Ave. & Junius St.,
 Brooklyn, N. Y.

Dear Mr. Eisemann:

I thought you would like to know that your new 26" cone speaker has been received more enthusiastically by our sales force than any new item given them in a long time.

My personal opinion, and all of the men agree with me, is that it is the finest cone speaker ever produced. We have made tests against all of the well known cones and we have yet to find one that compares with the new Model 26 from the standpoint of natural reproduction and ability to take volume.

The enclosed order for three hundred additional Speakers which we require for immediate shipment is definite evidence of the fine acceptance it is enjoying at the hands of dealers.

I hope you are arranging to give the new Speaker wide publicity for you cannot exaggerate its quality, and anyone who buys the Speaker will feel indebted to you for the tip.

With best wishes for continued success and kindest regards, I am

Very truly yours,

G.J. Seedman
 President,
 G.J. SEEDMAN COMPANY, INC.

GJS/MAT

Price \$ 35.
 (Pacific Coast prices \$ 2. add'l)

FREED EISEMANN

FREED-EISEMANN RADIO CORP. BROOKLYN-NEW YORK

These are the MEN



JAMES E. HAHN
President



POWEL CROSLY, JR.
Chairman of the Board



F. E. JOHNSON
Chief Engineer



A. B. AYERS
General Manager



W. H. LYON
Gen. Sales Manager

who will introduce
a new and dominant
AMRAD SERIES
next month!

A line of superlatively fine, purely electrical radio receivers.

Embodying principles of character and design of extreme interest.

THE AMRAD CORP., Medford Hillside, Mass.

Eye Value

is as Essential as Performance

-- in Present Day Radio Selling

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

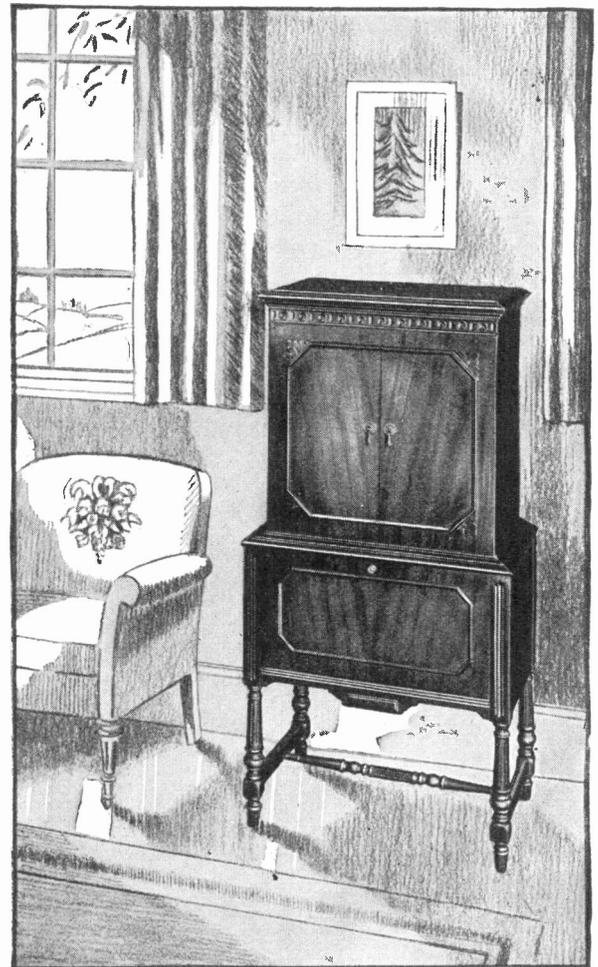
FRESHMAN EQUAPHASE *ELECTRIC* RADIOS

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

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

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

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



Model G-4

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

\$225⁰⁰ No **ACIDS
BATTERIES
WATER
TROUBLE**

Manufactured by

CHAS. FRESHMAN CO., Inc.

NEW YORK

CHICAGO

LOS ANGELES

FRESHMAN ELECTRIC RADIOS

Radio Will NOT be Wrecked

WELL, Congress finally passed a law and extended the life of the Federal Radio Commission for another year. But it imposed upon the commissioners its "equal allocation" amendment requiring that each zone shall have an equal number of stations, an equal amount of power, an equal number of wave channels.

No one would think of demanding that there be an equal mileage of railroads in every zone, or equal production of electric power, or an equal number of telephones. No one would ask that there be an equal number of letter carriers, regardless of the population or volume of business in these zones. But Congress has made this arbitrary ruling and it is the law.

It is a fact that broadcasting studios must be located where artists are available. It is a fact that the great studios of New York and Chicago are today producing a quality of program that cannot be provided in smaller communities.

It is also a fact that a New York or Chicago station even with super power cannot carry into distant southern and western states today. It is for this reason that the networks have been organized. But it is also true that these networks are not yet extensive enough to enable the entire United States to enjoy the known delights of the big city programs. That is what Congress has been stewing and boiling about.

The most disturbing factor is the uncertainty involved. The radio industry is naturally worried. "What does it mean?" men are asking. "Will broadcasting be broken down? Will it wreck radio?"

NOBODY—not even Congress itself knows just what this law will entail. But one fact stands clear for every man to fasten to—*Radio will NOT be wrecked!* The public interest lies in making the good program available to more people, not in destroying it. If anybody wants to know who is boss in America, the answer is easy. The public is boss. And the public is not going to have radio broadcasting ruined by Congress or anybody else without a fight. And when the public fights, it wins.

Everybody agrees to one thing. The people in the south and west would enjoy the programs from the great city studios as much as anyone else. They ought to have these programs. The question is—how? The commission is accepting the new law in the right way and is at work endeavoring to solve the problem.

One thing is certain, however, that any plan devised should provide for the continuing development of high powered broadcasting and guarantee good service in warm weather. Whether the new law influences the expansion of chain broadcasting from the big studios by wire to more new modern stations that eventually would cover the entire country—or whether it leads to the organizing of more good studios in smaller cities across the map, is after all of secondary importance. What the public wants and what the radio industry wants is good reception of the best possible programs available in every home—no matter where.

Perhaps out of all the tumult and the smoke will come the full delights of radio in those sections now suffering. That will be good.

The CONVENTIONS



Here's a merchant who keeps up with the news and capitalizes the national events that are broadcast



*Republican Convention—June 15—Kansas City
Democratic Convention—June 26—Houston*

THE National Conventions in 1924 meant any number of things to any number of people but to P. C. Moore, radio merchant in Champaign, Ill., it meant just one thing. That one thing was the sale of radio sets.

Just before the conventions opened Mr. Moore made up a list of what he calls "hard-shell Republicans and Democrats." Any number of them would have given their right hand to have been able to attend the conventions and he knew it. So he gave them the next best thing. He furnished them with a radio set. Moore sold 15 sets on the strength of these so-called "loans" of radio sets to the right prospects during the conventions.

The same idea worked out equally as well during the Eucharistic Congress held in Chicago. Moore supplied radio sets to a carefully selected list of people who were vitally interested in the Congress but who couldn't attend it.

In other words, he sells radio sets by keeping up with the news. If a big football game is to be broadcast, he sees to it that a selected list of football enthusiasts who cannot attend the game, are provided with sets. When the Dempsey-Tunney battle was staged in Chicago, fight fans in Champaign heard the returns over sets provided by Moore. If the president is to make a speech on Friday, those vitally interested in his talk will be furnished with a set on Thursday. By anticipating these broadcasting events and preparing his list of names in advance, he is able to install the sets where they will do the most good.

Right now, Moore is working on his list of prospects

for the coming National Conventions and expects to sell an even greater number of sets than he did as a result of the last conventions. Every political club, office holder or office seeker will be canvassed by him and anyone of them who does not own a radio set, or who has an antiquated one, will be supplied with a set for the broadcasting of the coming events.

MR. MOORE does not distribute his sets in a haphazard fashion. Before he installs a set for a try-out he first makes sure that it will be possible to arouse interest in the prospect. Then he decides whether or not that particular prospect can afford a radio set.

"We don't sell radio sets to people just because they want to buy them. Many times we discourage customers from buying sets. If we know positively that after a customer has had the set a couple of months we'll have to take it back because he can't pay for it, what's the use of selling it to him in the first place? We've even gone so far as to take sets back when we had gone out to install them. Of course we're tactful, but we're firm. We feel that we do the customer as big a favor as we do ourselves."

In reply to a question concerning his sales methods, Mr. Moore said, "We don't *sell* radio sets. Our customers buy them. Ninety per cent of our sets are bought, not sold."

Proof of this statement is revealed in a sale just recently made. Half a dozen radio dealers had been trying to sell a certain customer a radio set. A half a dozen or more sets had been tried out. The customer had listened to so much talk about the relative merits of the different sets that he was almost out of the inclination to buy any set. And then Moore delivered his receiver. Its total cost was a good \$300 in excess of any of the other sets

that had been demonstrated but he installed it without saying a word and walked out. The next day the customer telephoned the shop that he wanted the set. The set, in other words, had sold itself.

Mr. Moore's contention is that if the quality is in the goods, if the goods are properly displayed, and if conditions under which the demonstration is made are right, the set will sell itself. He handles only one make of radio sets—the one that he started out with six years ago when he first went into business and he's kept it ever since. For proper display of his goods, Moore has a model of every set this particular company manufactures on the sales floor, all hooked up, ready to go.

IN MAKING conditions as nearly right as possible for the demonstration of his goods, Moore sees to it that all interference around his shop is cleared up before he attempts to put his sets to the test. If interference is present to any appreciable extent, the demonstration is postponed. He believes that in order to demonstrate a set satisfactorily it is necessary to create, as nearly as possible, the atmosphere of the home. He likes to say to a customer, "This is the way this set is going to sound in your home." Not, "of course the set will sound much better when it is installed in your own home."

Ninety per cent of the sets sold from Moore's Radio Shop are sold for cash. On those that are sold on time he insists upon at least 25 per cent of the cost for the down payment. Monthly payments are made on a proportionate basis.

"If a man pays, say, \$5 down and \$2.50 a month after that until the set is paid for, the set will never be paid for," says Moore. "He'll use the set all winter and by the time spring comes he's ready to buy a car and the radio will come back to our shop. That's not good business."

"My argument is that if a man wants a \$300 or \$400 set and hasn't that much money to pay for it, he hasn't any business with that kind of a set. It's too much money for him."

Moore is strongly opposed to paying more for a trade-in than the old set actually is worth, simply to

make a sale. "I'd rather lose the sale than allow too much on a trade-in. If I pay more for the old set than it's worth, I'm just that much nearer out of business. Some dealers figure that even if they make only \$10 on a sale they're making money. If you figure your time and overhead you'll find it costs \$10 to make a demonstration. Where's your profit?"

"Besides, you can't have all your working capital tied up in trade-ins. It's the profit in the sets that enables you to stay in business. The sooner the customer realizes that after his set is a few years old its resale value is practically nothing, the better off this business is going to be."

"Another thing. If a dealer allows more for an old machine than that machine is worth, he can't possibly give service on the new set and make any money. And the radio business is built on service. The minute you don't give it to a customer you've lost his future business and the business of his friends for no one yells louder and longer than a man who isn't satisfied with his set and the service he gets on it."

Moore tries never to oversell a customer. He says in his experience he has learned to estimate just about how much

a man can afford to pay for a radio set. In making a demonstration to that man he exhibits the model that is within his means. Yet the average set sale in his shop is \$225. He caters to the class of customers who wants a good radio set and who can and will pay a good price for it.

Moore employs no solicitors. He spends some \$500 or \$600 a year on newspaper advertising and three or four times a year he works on his mailing list. Two service men are in the field and three salesmen are employed for the store. About the radio business he says, "It's a fascinating business but it requires a lot of horse sense. If you're not prepared to use it, you might just as well get out of the game altogether."

Mr. Moore appears to have used a lot of horse sense in his business. Last year his gross sales amounted to something like \$50,000. Every year of the six he has been in the radio business has shown a good 50 per cent increase on the gross and this year thus far has proved no exception to the rule.

Get Ready!

The Republican Convention will be held at Kansas City, Mo., beginning June 15, and the Democratic Convention will open at Houston, Tex., June 26. Every political club, office holder, or party member is a good prospect for a set. Line up the prospects in your city now!

Three Set Sales and 50 Real Prospects for \$88

ROY CUTSINGER of the Cutsinger Radio Company, Walnut Ridge, Ark., sold three complete radio receivers totaling \$325 and secured the names of 50 real prospects recently by offering an \$88 receiver to the local high school scholar submitting the best essay on "Radio." Cutsinger found the school authorities willing to cooperate since his offer stimulated interest in composition writing in the schools and offered excellent training for it.

More than 125 essays of 500 words were turned in by the pupils to a jury of teachers. The essays were judged, then turned over to Cutsinger together with the names and addresses of contestants. When the award

was made 10 of the best essays were published in the local paper, one each week, to create interest. "Pupils became so interested that they actually 'phoned my home in the evenings for information," states Cutsinger. "I consider this method of advertising the most productive I have ever employed."

The political conventions on the way in June offer an exceptional theme for essays of this type. Tying in the broadcasting of these conventions as one of the reasons why school children should have radio available, makes a timely additional subject for essays, particularly among students of civics and contemporary history.

Quotes *the* Down Payment FIRST

This merchant finds that quoting the down payment first makes a stronger appeal to his prospects than the cash price or the total, time-payment price



“WHAT is the price of this set?” asks the prospect.

There are three possible replies to this question, and it is exceedingly important which one is used. Many a sale is closed or lost right at this point. Every move the dealer has made up to this time—his investment in store location and furnishings, in merchandise, his time and money—all this has been done for one purpose only . . . to get the prospect to ask, “What will it cost?”

The critical moment has now arrived. Will Mr. Dealer say, “One hundred and thirty dollars, cash price,” and thus embarrass over 60 per cent of his prospects who really would like to buy on time but whose vanity somehow makes it difficult for them to make this admission?

Will he say, “One hundred and forty-three dollars on the partial-payment plan,” and offend, unconsciously perhaps, his cash prospects and discourage his credit ones?

Or, will he play safe by saying: “Only \$35.75 down, Mrs. Black, and I will install this set in your home, ready to operate.”

CREATES FAVORABLE REACTION

IT IS a conservative statement that 70 per cent of the automobiles, 85 per cent of all major electrical appliances and 60 per cent of all radio sets, are now purchased on the time-payment plan. “The radio merchant, therefore, who quotes the cash price first is simply interjecting an element in the selling process which must first be disposed of before the sale can be consummated,” declares Nye Osborne of Wilmington, Ill., whose radio business of \$28,000 per annum, in a trading population of 14,000, has been due largely, he feels, to the manner in which the sale is closed. “Don’t worry about the cash buyers,” he says. “They will quickly declare them-

selves with some prideful remarks such as: ‘But I want to pay cash.’”

“Fine, Mrs. Black, you will save \$13 by doing so,” he replies.

But the majority of buyers, in this dealer’s opinion, those with steady incomes but limited ready funds, will not be so quick on the trigger if the dealer gives answer number one. Many will side step, give some other, not the real reason, for “thinking it over” and eventually walk out the door.

MR. OSBORNE finds that quoting the down payment first—the last reply suggestion—makes the strongest appeal. Thirty-five dollars and seventy-five cents, or 25 per cent of the total time-payment price, is a more intriguing proposition than \$130 cash or \$143 on the partial payment plan. Still, even this amount may cause some, whose ability to meet the required monthly payment is perfectly sound, to hesitate. In that case Mr. Osborne again reviews the features of the set which seemed to make the greatest impression the first time; but the signature on the dotted line is not forthcoming. Tactfully he leads the customer to say, “But that first payment seems pretty high.”

“Is that the only reason you hesitate, Mrs. Black?”

Now comes the critical period. The customer must be led to admit that it is.

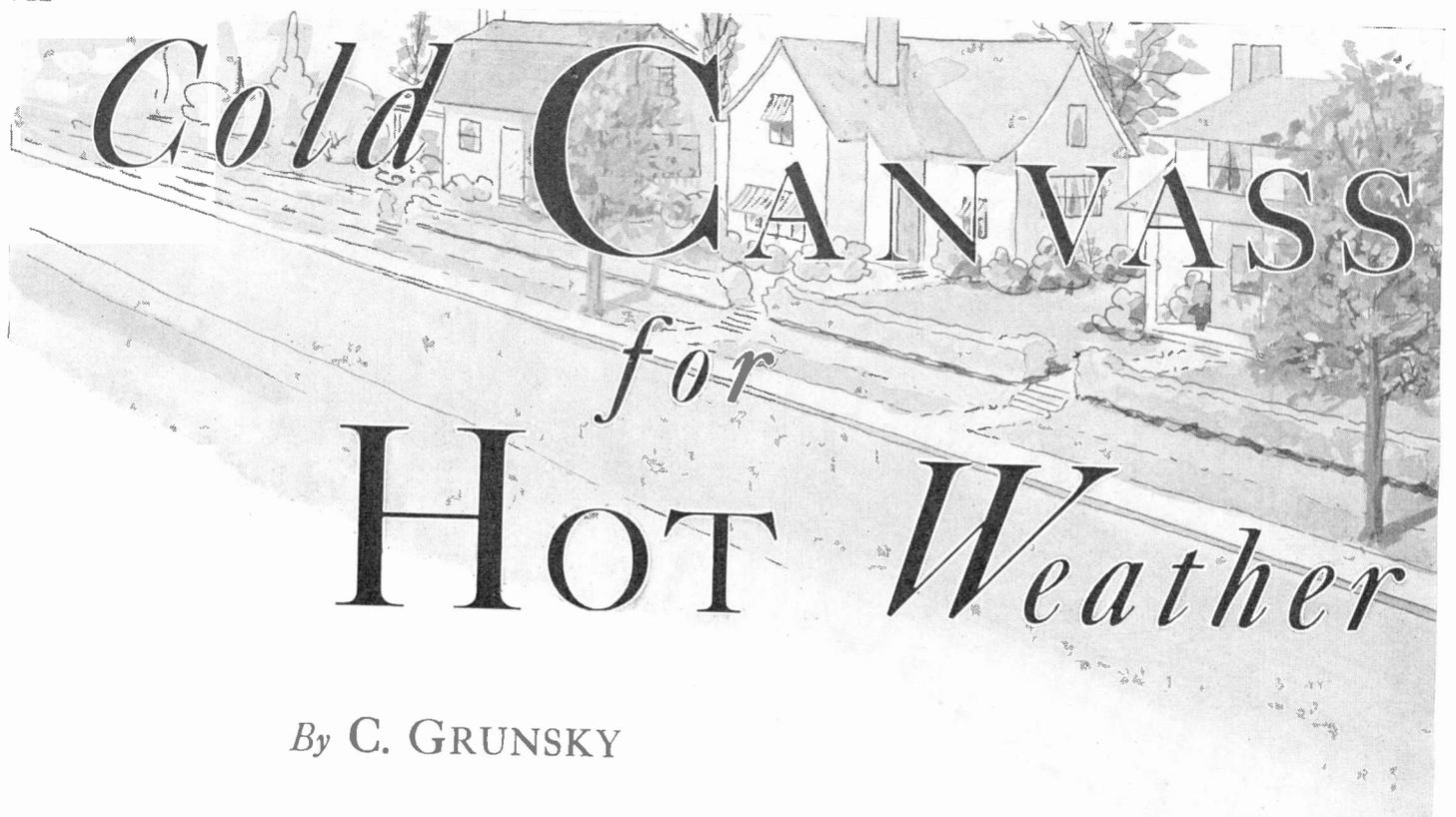
“May I ask, Mrs. Black, just about what you do feel like paying?”

“Do not say, ‘what you can afford to pay,’” Osborne warns.

The customer will seldom name a first payment figure less than 15 per cent of the total quotation.

“Very good, Mrs. Black, when do you want me to deliver the set?”

Mrs. Black has, by her own admission, “bought something” and Mr. Osborne has made another sale.



By C. GRUNSKY

When summer comes this merchant sends his inside salesmen outdoors to canvass for new customers

WHAT to do to keep the sales curve up when hot weather comes is the problem confronting many a radio merchant at this moment. It is the problem that at one time confronted R. R. Bent, sales-manager of the Oakland Phonograph Company, Oakland, Calif., until he conceived the idea of putting his inside sales force in the field to drum up sales during the summer lull.

As a result of his plan the first day of summer now finds the entire sales staff of the Oakland Phonograph Company withdrawn from its usual occupations and sent out on a house-to-house canvass. The store is kept properly manned, of course, and the service department is ready to answer any call made upon it, but outside of this, the entire organization is uprooted and sent out on the quest of prospects.

And in this business they remain for the rest of the summer, or until the so-called slack season is over and the normal demands of business again require the full staff to follow up leads and carry on their usual functions. The house to house canvass itself hastens this day.

The system is very simple. Each salesman—and Mr. Bent includes himself in the list—starts out with his car, prepared to make twenty calls during the day. Each is given a district to cover. On approaching a residence, his first observation is whether or not a radio antenna is on the roof. In any case, he rings the door bell.

***D**URING the summer months the store personnel has much time to spare and many are usually laid off, but the philosophy of this California merchant is—"Send your floor salesmen out to see the customers, when customers stop coming to your store."*

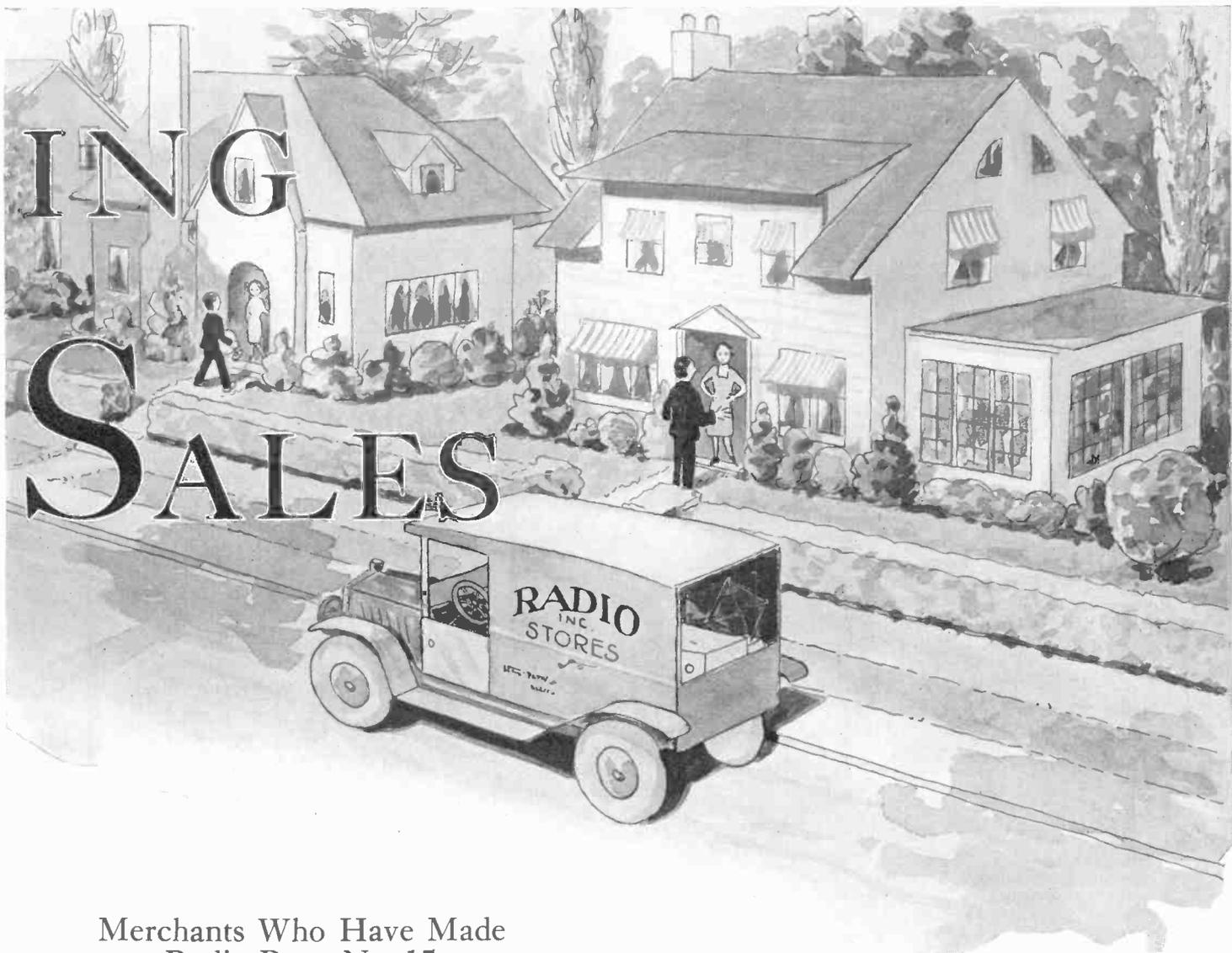
If an antenna is in evidence the following lead is used: "Good morning," says the salesman, "I note by the antenna on your roof that you have a radio. I don't want to take any of your time, but I am connected with a radio store and I just want to leave my card in case you should be in need of batteries or any repair work."

The answer he receives to this lead determines whether or not he goes on. If the housewife really is busy, sometimes all that happens is that he leaves his card. That is to say, this is all that happens at the time, but experience has shown that quite a bit of business can definitely be traced to people who have come into the store on the basis of the cards left in their possession and the favorable impression made upon them by the salesman.

If, however, the housewife is not too busy, the conversation goes on, the salesman inquiring what kind of a set she possesses and whether it is working all right, possibly lining up a repair job or a prospect for a better type of radio set on the spot.

Suppose, however, there is no antenna on the roof: "Good morning," says the salesman in that case, "I note you have no antenna on your roof and so of course I felt that I could sell you a radio set." The housewife smiles, and again the conversation is opened.

The work is not in any way unpleasant, according to the salesman—there are very few unfavorable receptions—and even where no opening is made for a later sale, it



Merchants Who Have Made Radio Pay—No. 15

is usually possible to make the experience for both salesman and housewife a pleasant one. The men are encouraged to get all the enjoyment they can out of the experience. Usually they take their lunch, and at about quarter of twelve find an opportunity to take a run into the Oakland hills where they meet and eat their lunch in true picnic fashion. This spirit in some way finds itself into the approach to the customer and makes the entire transaction easier.

Of course, returns in actual sales do not run high for the number of calls made, but it is surprising how many friendly contacts are made which later develop into a money making relationship. Mr. Bent estimates that thousands of dollars worth of business is brought into the store during the winter months which originated in these summer calls. In addition the actual summer sales made are sufficient to justify the procedure. The experience of contact with the public is also very valuable to the entire staff, who appreciate and profit from the experience.

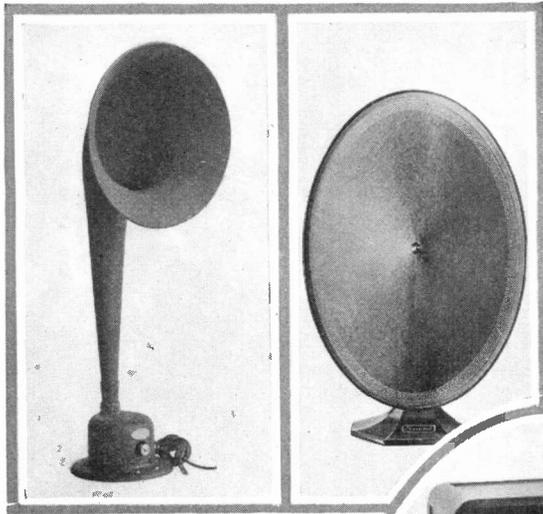
The Oakland Phonograph Company started as a purely phonograph business, but in the early days of radio, added that line, which has expanded until it now dominates the store. Twice the concern under the leadership of B. S. Goldsmith, proprietor, has found it necessary to expand its quarters.

MR. BENT also believes in advertising, in conjunction with their canvassing, and what is more, he believes in advertising over the radio. "Very few customers buy the expensive type of set for their first purchase" is his explanation, "or, if they do, it is because they are familiar with the advantages of radio through the use of a set belonging to someone else. The ten minute talk over the radio which we give every morning and evening reaches both these classes of people—the man who is ready to buy a better set, and the man who is listening in at his neighbor's. For those who set out to buy radio without having had previous access to a radio instrument, there is always a kind neighbor who gives advice and whose freshest impression is that of the 'wonderful set which they heard described by the Oakland Phonograph Company just this morning. Better look it up'."

These radio talks are given by a man with a good radio presence rather than by a member of the firm, whose voice might not be adapted to this method of reaching the public. The hours chosen are at 9:30 in the morning and at 7 at night. Each talk emphasizes some one thing carried by the store. Almost invariably these talks produce immediate results in the form of telephone calls or actual visits the following day. "Set a radio to catch a radio prospect," says Mr. Bent.

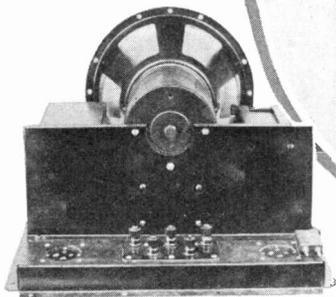
TRENDS

Tracing latest developments in radio furniture, speakers, tubes and tuning—what's on the way for 1929

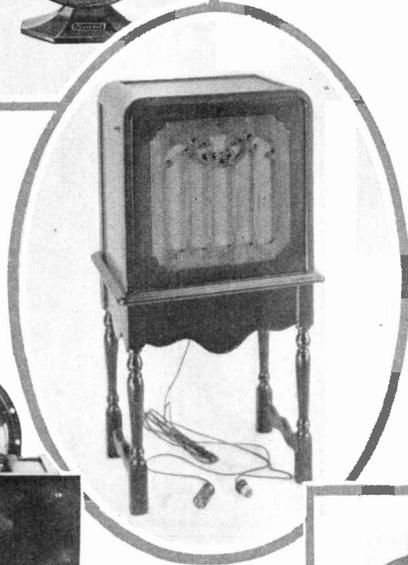


SOME SPEAKER TRENDS—

*(Above, left) A. D. 1922.
(Above, at right) A. D. 1928.
(Right) Electro-dynamic,
A. D. 1929.*

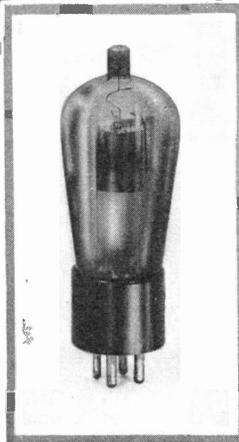


Above is the unit of the latest development in speakers, the electro-dynamic, which requires extra D. C. to actuate it.

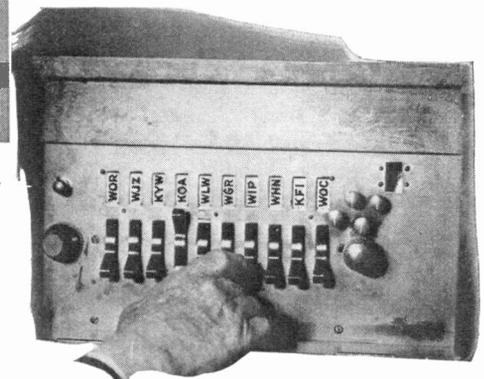


Possibilities for Next Season—

*Electro-dynamic speakers
Shielded grid tube for A. C.
Receivers using shielded
grid tube
More graceful cabinets
Push button tuning
New radio-phonograph
combinations*



(Above) The shielded grid tube, which, in A. C. form, is expected for next season.



(Right) The newest method of tuning—press a button and the station comes in automatically.

RADIO developments during the past year have not been of an individual nature. There is no one outstanding discovery that has changed radio to any great extent. There are, however, several important trends well under way which are worth considering in the light of their future sales opportunities, particularly during the 1928-29 season to come.

First and most important we find radio furniture rapidly coming to the front because of the very definite trend of set manufacturers to market a small chassis and cabinet, leaving the distributor or retailer to put the set into a larger piece of furniture. Cabinet manufacturers seem to be splitting into two schools of design, one of which is fostering the highboy or chest models, and the other console and table models. At this writing it looks very much as if public favor is toward the highboy model in the more expensive types and for the table model in the lower price ranges.

Comparing the radio furniture of today with the first cabinets in vogue in 1923 and 1924 we find a much more graceful and finished design in the modern cabinets. The trend is away from the wide console models at first popular, and with the A. C. set eliminating the need for battery compartments,

a neater piece of furniture is possible. It is also to be noted that furniture designers are paying much attention to the lines of cabinets, seeking to perfect models that will harmonize with ordinary home surroundings.

FURNITURE STOCK NECESSARY

Furniture manufacturers today are catering more and more to the needs of radio distributors and merchants with respect to special furniture. With the manufacturer becoming committed to the policy of shipping only the chassis in a

in Radio Design

For NEXT Season

small cabinet from the factory, the necessity is keen for the merchant to carry a stock of radio furniture in which the various models of receivers can be placed to meet the desires of the individual purchaser.

Along this line, too, metal cabinets are becoming increasingly popular with receiving set manufacturers because of the complete shielding provided as well as the item of economy, both in initial cost and lack of breakage in shipping. Another important factor in the metal cabinet trend is the ease with which they may be installed in larger wooden cabinets after reaching the hands of the retailer.

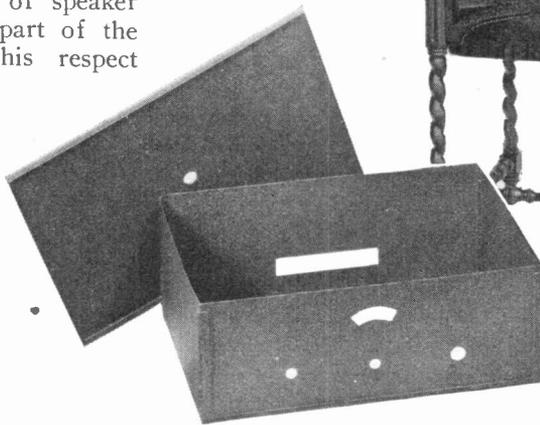
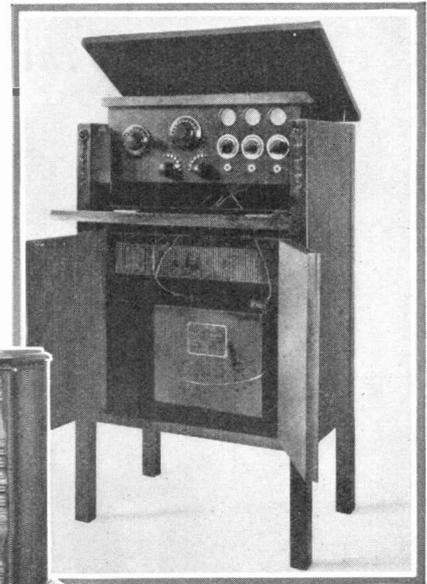
With few exceptions the furniture manufacturers are including some standard make of speaker as an integral part of the cabinet. In this respect the trend is unquestionably toward small cones because of their compact construction resulting in a smaller and more graceful design of the cabinet as a whole. Most furniture manufacturers are also paying great attention to acoustics in the design of the tone chamber, particularly where small cones are used. Proper design of this chamber in co-ordination with the sound waves produced by the cone gives adequate reproduction of all frequencies, resulting, of course, in better tone quality.

THE horn type speaker first in vogue from 1921 to 1924 was soon found to reproduce the high frequencies only. Seeking to find a type of speaker that would reproduce the low frequencies, the cone speaker was developed.

In its present day development, the cone speaker is by far the most popular speaker in the estimation of the public. However, it has been found that many cone speakers reproduce the lower frequencies at the expense of the higher frequencies and many manufacturers experimented with various types of air columns in an

THE TRENDS IN CABINETS—

(Right) Vintage of 1923.
(Below) Latest 1928 model.
(Lower left) Metal cabinets which are having an increasing sale in the lower price ranges.



effort to find a speaker that would reproduce all frequencies equally. Out of this was evolved the exponential or orthophonic type of horn with which every one is now familiar. However, the large space that is required to house the orthophonic horn, with its consequent bulkiness, led to still further experimentation in the hope of obtain-

ing a more compact unit that would give the same results. So the logical thing happened. A small cone is being combined with the exponential horn and is in the process of preparation for the market by several manufacturers.

ELECTRO-DYNAMIC SPEAKER IMPORTANT

It is also important to note that the latest and most up-to-date development in speakers—the electro-dynamic—using the electro-dynamic principle, is fast becoming popular. This type of speaker is being made by only a few manufacturers at the present time.

The electro-dynamic speaker consists of a small cone which is actuated by the impulses from a large field coil, which in turn it is necessary to excite by direct current. On the apex of the cone is a small coil set in the magnetic field of the field coil. The cone being of free edge design will vibrate readily to the actuating impulses of the field coil. These speakers are said to have almost complete freedom from distortion, blasting or chattering. As the electro-dynamic speaker has no natural frequency of its

(Please turn to page 89)

How Radio Saved a Piano

Experience gained in merchandising pianos is directly applicable to the sale of radio sets, this merchant has found



Telephone and personal contact netted four sales a week.

door solicitation policy then in effect. During the fall of 1926 I gave the house-to-house method of increasing radio sales a thorough trial. It didn't work.

In this I agree with Mr. Griffin, whose opinions were published in the January issue of *Radio Retailing*, that an article with which maintenance service is as closely associated as is the case with a radio set, is not the ideal product to sell by "cold canvassing" methods.

Now with pianos there never was a kick, couldn't be, even from the most luke warm purchaser, that "the darn thing won't work." With radios, however, the stone cold prospect if sold, costs too much to keep sold. Replevined pianos can always be reconditioned and disposed of for almost the original purchase price. Radio sets deteriorate and get out of style too rapidly to make this a practical procedure.

But my piano experience has convinced me that volume, in the matter of selling musical instruments, can never be attained by "sit-and-wait" tactics. Something else had to be done. As is frequently the case a compromise was the solution. That compromise was the telephone.

I made a rule, which I am following this year, to telephone five persons a night. During the more active seasons this less expensive method of contacting luke warm prospects netted four sales a week, closed, of course, by following up the live leads through personal contact.

WHEN interest in pianos began to wane in 1924 and radio peeped over the horizon the Toller Piano Company was one of the first music houses in Chicago to take on that line. For the year of 1923 our gross sales, mainly from pianos, was approximately \$75,000. Last year the radio business alone grossed \$46,000. I attribute at least half this amount to selling methods borrowed from my experience in selling pianos, phonographs and other musical instruments.

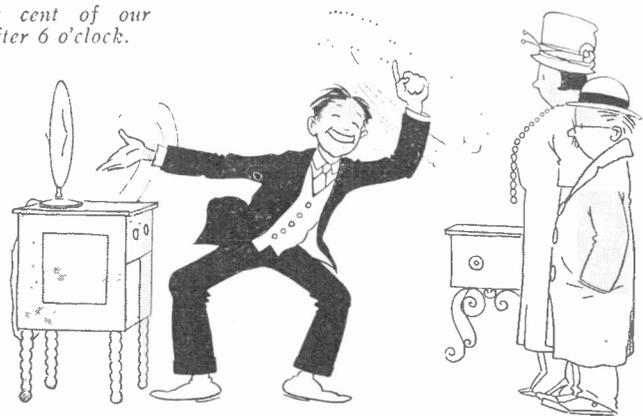
I am able to recount at least a half dozen policies which have proven themselves business getters for the radio department that were inspired by lessons learned ten years ago, when the piano game flourished. Certainly three of the things I am practising successfully on radio prospects were used, in principle, that far back.

It isn't the newness of an idea that determines its merit, in my opinion; it's the *adaptation* and *application* of a merchandising fundamental that counts. To cite an example—one in which it was necessary to modify the original idea to make it apply to radio, but in which the basic principle is sound—that of going after the prospect; *creating* sales, not *waiting* for them to walk in the door.

As I mentioned before our gross sales for 1923 from pianos was approximately \$75,000. Over sixty per cent of this amount was written as the result of the door-to-



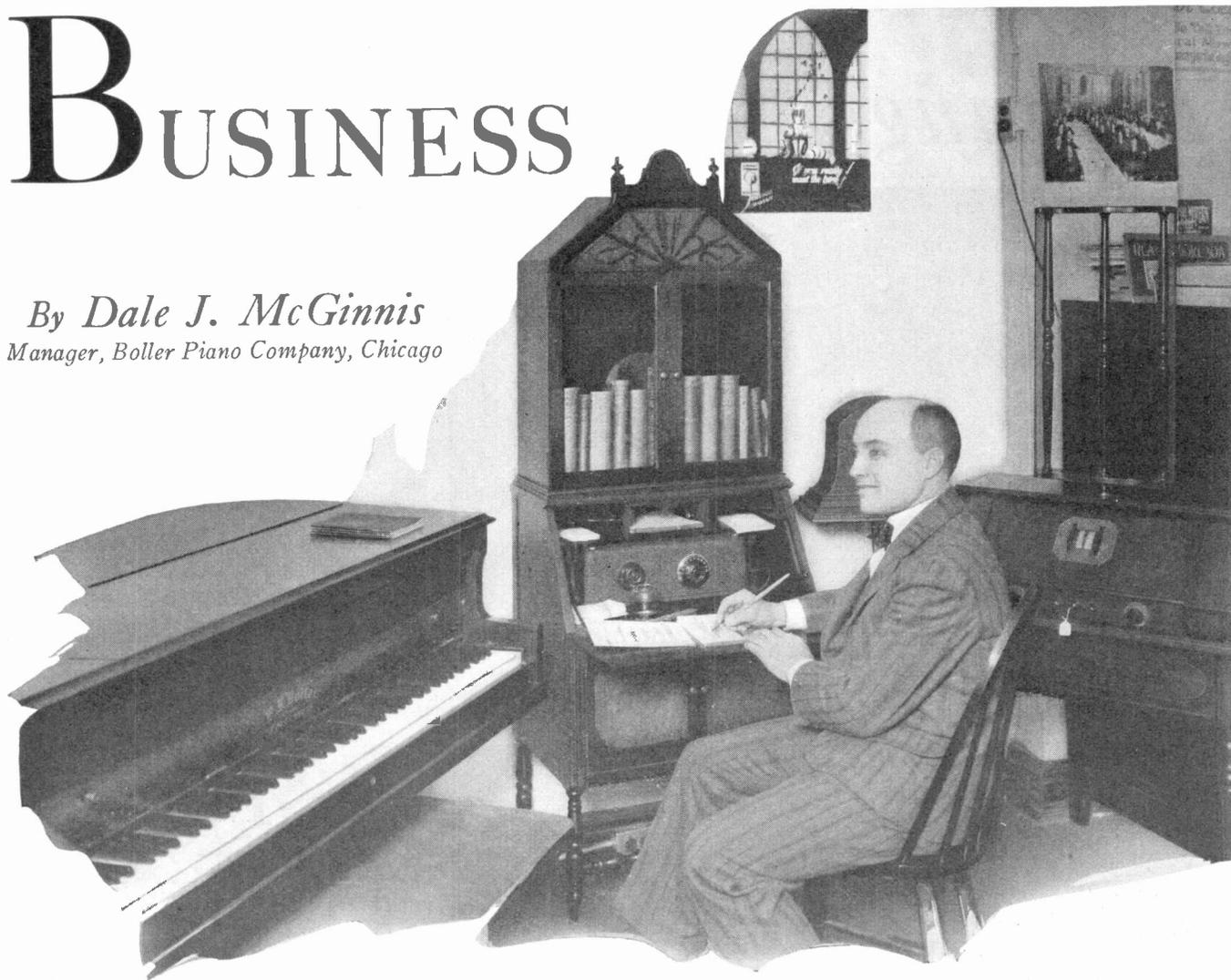
Seventy-five per cent of our sales are made after 6 o'clock.



Genuine enthusiasm is infectious and makes sales.

BUSINESS

By Dale J. McGinnis
Manager, Boller Piano Company, Chicago



I obtained my names, and continue to do so, from four sources: (1) Store customers who drop in to buy records, sheet music or to look at musical instruments; (2) casual store visitors "looking around" for a radio set; (3) my list of customers acquired during those 17 years in the music house business; and (4) the local edition of the telephone directory. From the latter I pick my "unknowns," by neighborhoods, avoiding, of course, the poorer districts.

THE telephone can be made a wonderful sales tool when used properly, and consistently. You expect your outside salesmen to be on the job *every* day. This same theory should be followed where the telephone is substituted. Call up a certain number of names every evening. It takes less time and is far cheaper to telephone than to travel a man. In the former instance the owner or manager can, and should, do the talking.

Each canvass by wire should be original, depending entirely on the attitude of the party at the other end and whether it is an old customer or a stranger. I generally try to have on tap a piece of bait such as: "Have you seen the latest invention in radio sets? We have just received an outfit at the store that is the best thing I have yet come across." Have a definite story ready, something specific to talk about.

Mention has been made of the fact that we keep open evenings. Seventy-five per cent of our sales are made after six o'clock. That's point number two that I learned

from the old days. I should say that about half these transactions are closed on the floor, the balance in the home.

The third thing is enthusiasm. I have turned down perfectly good lines of radio merchandise simply because I personally couldn't, somehow, seem to enthuse over them. Genuine enthusiasm is infectious. It cannot be simulated. Women, especially, are keen to detect any "acting" on the salesman's part.

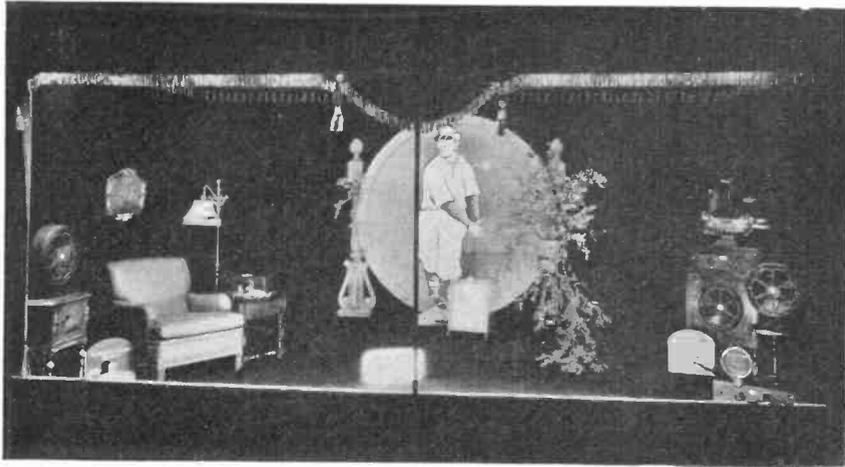
In selling pianos, or any article where tone value and appearance is a matter of opinion, and is not susceptible to mathematical proof, I know I found that the customer was inclined to be guided largely by the salesman's opinion; provided the impression previously had been made that the seller's decision would be an honest one. This certainly applies to radio. Sell yourself first—and know *why* you are sold—if you would hope to sell tone and appearance to somebody else.

WHILE on the subject of swaying opinions perhaps this will help—A man can be made to change his opinion easier than a woman but the "deadlier" sex is the more readily influenced by general appearances—externals.

Never ask for a decision to buy or not to buy. If you have made a sale the customer will indicate, by his attitude, that the time is ripe to ask about delivery in-

(Please turn to page 89)

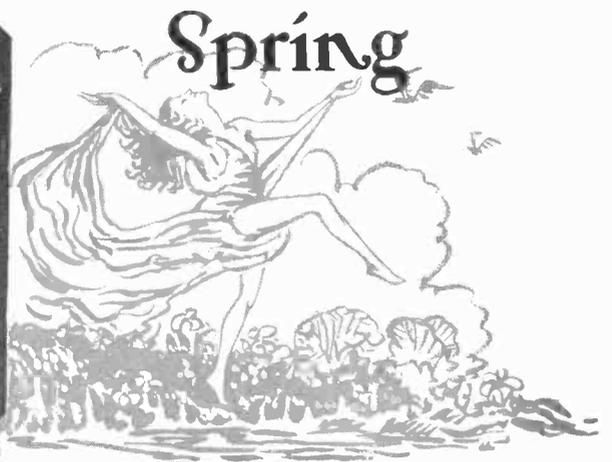
Keeping Radio Windows



THE Power Furniture Company, Portland, Ore., pays particular attention to keeping its radio windows up-to-date. All the windows on this page were tied up with same timely event. They were created by J. Walter Johnson, window trimmer for the Powers company.



In the Spring, baseball and the return of warm weather are the two main subjects of conversation. In the first window above, baseball games and scores via radio is the theme, and in the other, the Easter season is indicated by flowers artistically draped around a framework enclosing the receiver on display.

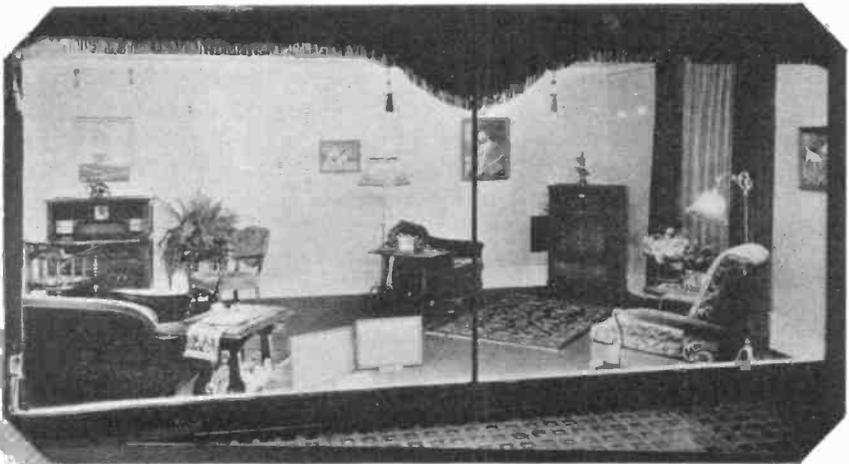


Last October, the Powers Company visualized the enjoyment of radio entertainment at the Hallowe'en party by means of this clever window. Streamers and confetti strewn about lent adequate festive atmosphere at a minimum expense.



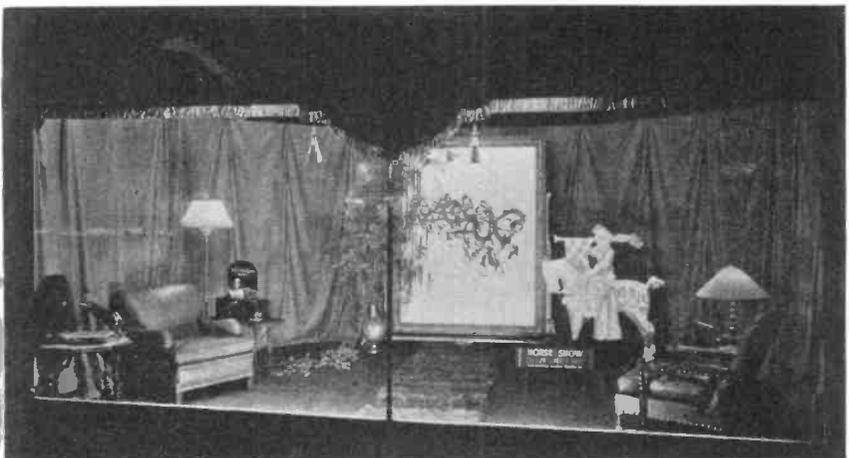
Up to the Minute

News Events



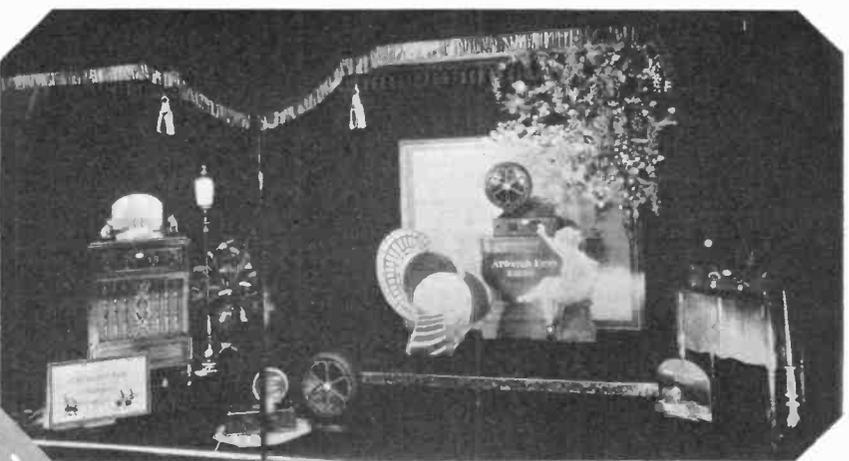
News events as they are broadcast are always subjects for window displays. Neat signs in the window above welcomed Colonel Lindbergh to Portland on a recent visit and stressed the fact that Lindy is a confirmed radio fan.

Special Features



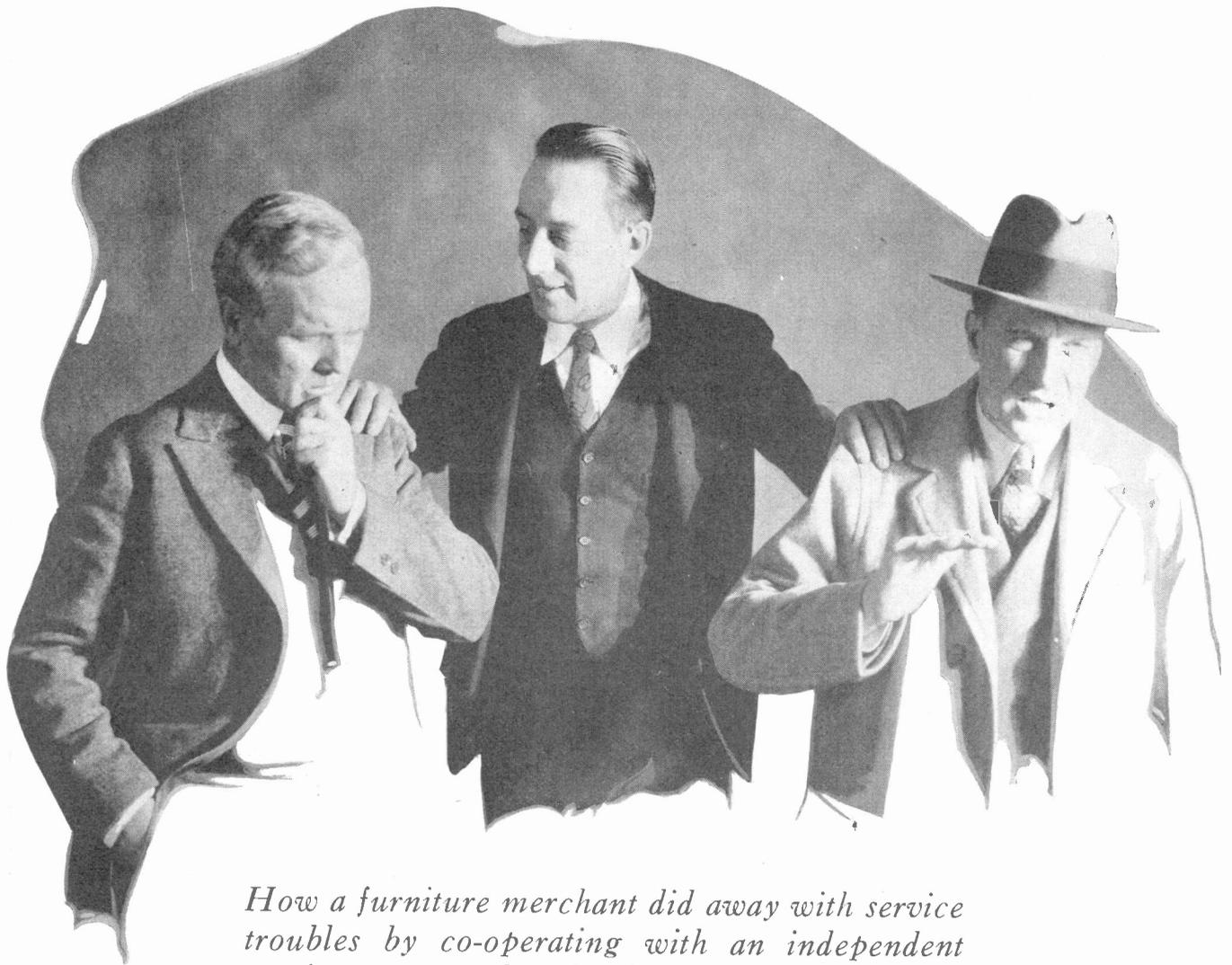
Special local events, such as the Horse Show, are also featured in the Powers windows. Above is the window tying in the broadcasting of events at the Horse Show, with their reception in the home via radio. All that was necessary was the receiver by the arm chair and a background visualizing the Show.

Thanksgiving



Thanksgiving, of course, is an old standby as a window theme. In this case, an economical display was devised by showing a life-size cutout of a turkey listening to the receiver.

"Let ME Solve



How a furniture merchant did away with service troubles by co-operating with an independent service man—a plan that keeps everybody happy

THE problem of rendering proper service to radio sets is frequently a perplexing one for the non-electrical class of radio merchants such as music or furniture houses. To these merchants, first profits are perhaps more interesting than profits on accessories or secondary profits which accrue from service. Yet there is no question but that service must be included in the sales plan of any establishment which expects to stay in the radio business.

H. A. Turner, owner of the Turner Furniture Company, of Carthage, Mo., was confronted with this problem when he took on radio two years ago. He was not interested primarily in accessories or parts, and neither did he wish to maintain a service department. He met this situation, however, to his entire satisfaction and that of his customers, by forming an agreement with a competent, independent radio service man whereby the latter

would take the full responsibility of servicing the sets sold by the Turner company.

The independent service man in this case was E. C. Neubert, an experienced radio technician who maintains a radio sales and service store also in Carthage. The agreement devised by Turner and Neubert is simply as follows: at the time of a sale by the Turner company, the customer is given a choice of the set without maintenance, or of buying Neubert's service plan, by the terms of which the customer's set is completely serviced for an average monthly charge of \$2.

Thus all service worries are removed from the shoulders of the store, the store's investment in service is zero, and its service costs are the same. For Neubert the transactions are profitable, of course, and the customer is kept happy because he knows he can get any and all kinds of service whenever he wants it.

Your SERVICE Worries"

That the customers of the Turner company are satisfied with the plan to get perpetual service and pay for it is indicated by the fact that 60 per cent of set purchasers immediately purchase the service plan, and 35 per cent of the remainder eventually sign this auxiliary contract after they have talked it over with E. C. Neubert, the service man.

By the terms of this contract the customer agrees to pay Mr. Neubert an average of \$2 per month in return for which he binds himself to furnish a freshly charged A battery as frequently as may be required and to inspect and service the set whenever necessary throughout the life of the contract.

In return for having this proposition presented to all of the Turner company's customers, Neubert acts as its servicing department. All of Turner's service calls are referred to him. If the fault is not the complainant's Neubert stands the time loss and Turner the cost of the material. If a charge is justifiable, Neubert handles the entire transaction. He bills the customer at cost plus ten per cent. Since 75 per cent of Turner's radio customers eventually subscribe to the yearly battery and set service plan, this leaves but 25 per cent who come under this agreement.

As ninety per cent of the volume of Mr. Neubert's business is with his yearly contract accounts, the temptation to overcharge on these miscellaneous calls is negligible. Neubert's interest in satisfying all of Turner's customers is just as personal as that of the merchant himself.

Under the terms of this dealer-serviceman agreement, Mr. Turner is relieved from the details of operating a servicing department. His only expense, for replacement of defective parts, is usually covered by the manufacturer's guarantee. True, he sacrifices his opportunity for a servicing profit, and a certain amount of added business in accessories which he might obtain were it not for this yearly service and battery maintenance offer. But, in his position as a furniture dealer, he feels that the many expressions of satisfaction received from his customers concerning the operation of their sets, and the expert and watchful manner in which they are serviced, has more than compensated in added set sales for the

apparent, though not actual, loss of control over servicing which his present set-up has brought about.

HOW does it work out from Neubert's side of the agreement? At present he has 127 customers under yearly set maintenance contract. His monthly charge schedule is as follows:

October to April @ \$2.25	\$15.75
May \$2	2.00
June, July and August @ \$1.50	4.50
September \$2.00	2.00
Total for 12 month contract	\$24.25

His operating expenses for each contract per year are:

Sinking fund for replacing storage batteries	\$3.60
Cost of charging current (80 amp. batteries averaging 23 charges per year)	2.76
Delivery expense (23 trips at 15 cents)	3.45
Time (charging, delivering, servicing)	9.50
Overhead (no store or elaborate equipment—includes depreciation)	90
Net profit (16 per cent)	4.04
	24.25

Reference to the preceding cost tabulation will show a cost of but fifteen cents for delivery expense per call. This is because Neubert routes himself by neighborhoods. While he always answers calls for service promptly he finds that it is more economical, during the active season, to

drop in on his customers once every three weeks.

Mr. Neubert was questioned concerning the high percentage of users who were persuaded to pay two dollars a month for this service. "I am able to show them," he replied, "that my continuous set and battery service proposition is almost as inexpensive, in the long run, as Mr. Turner's alternative. The many testimonials which we have (referring to the Turner Furniture Company also) from pleased users of my plan also carry considerable weight in selling it to new set owners."

As contact man, Neubert naturally is the logical person to sell replacement batteries and tubes. He buys these from Turner at cost plus 30 per cent. He also functions as salesman for Turner and sold twenty-three sets for him last year. His commission on sets is 15 per cent.

The result of this service plan is perfect satisfaction for all three parties concerned.

The Turner Furniture Company found these advantages in its independent service tie-up—

- ¶ Lower first cost reduces sales resistance.
- ¶ Frequent contacts with the set owner offer opportunities for later sales.
- ¶ Set always at maximum efficiency.
- ¶ Satisfied customers remain sold on the set.
- ¶ Merchant relieved of service details and expense. His entire time is available for selling.

Small boats, electric refrigerators, home movie cameras, portable phonographs, are some of the items that balance the radio curve.

NOT longer than two years ago a sharp difference of opinion existed among radio merchants and jobbers as to whether or not radio alone was sufficient to maintain at a profit any store or organization throughout the twelve months of the year. It was recognized that radio had definite seasonal aspects and that some means must be found whereby the "summer slump" could be overcome.

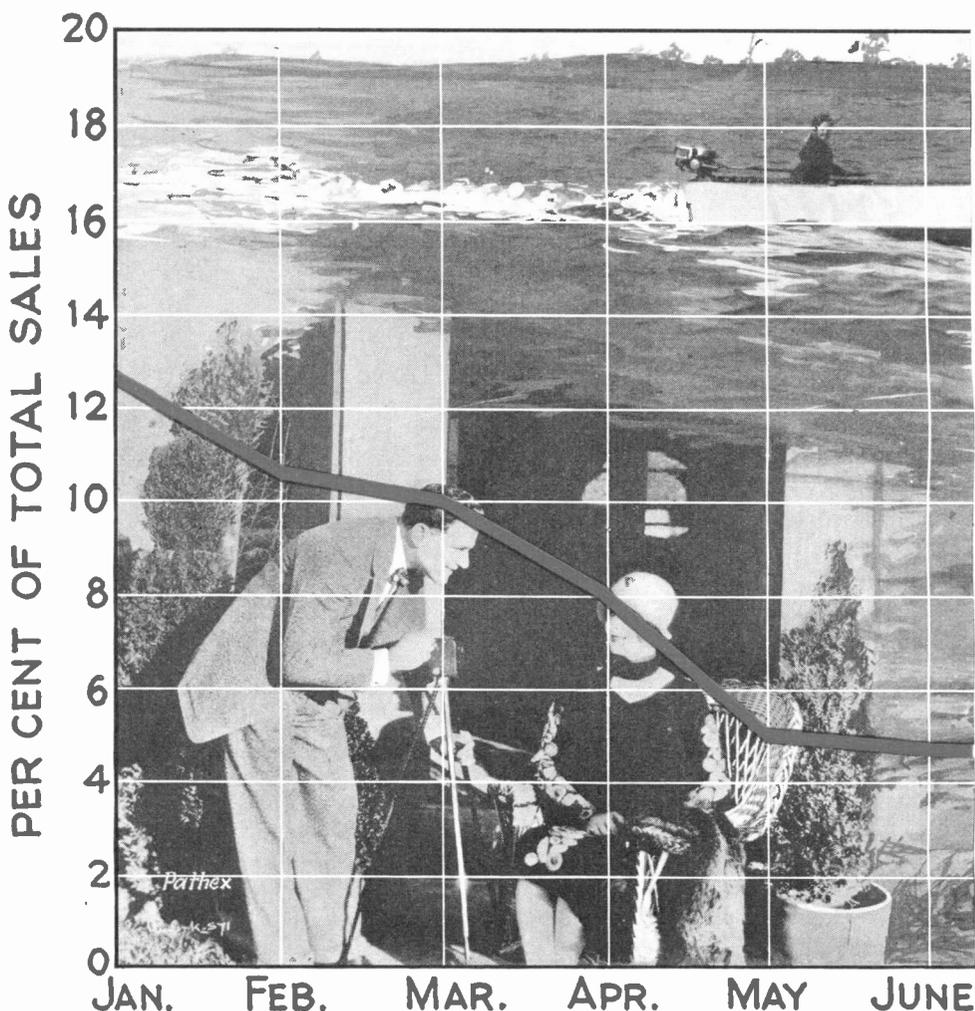
There were many who believed that radio itself could be stimulated for summer selling, and that the final answer to the problem lay in proper and sufficient summer broadcasting as to develop a year-round demand for radio sets and accessories on the part of the public.

There were others who believed that very little, if anything, of a practical nature could be achieved along these lines; that radio was by its very nature an indoor sport and that there was nothing that could be done to keep the public interest at a high pitch once they began to seek their amusement and recreation out of doors. This school of radio merchandising held that the final answer to success on the part of the radio store lay in its ability to find things other than radio to sell during the summer.

As in most things, the truth of the matter lay somewhere between these two ideas, and today nearly all radio retailers are inclined to admit that there is something to be said in favor of both plans. It is unquestionable that everything possible should be done to stimulate radio selling during the summer, but even at best it is generally admitted that a marked seasonal slump will always exist in radio selling, and that a sufficient volume during the summer time can never be developed to rid the radio dealer of the fear that the losses he takes from April to September will seriously affect the profits he has rolled up during the months in which radio is in demand.

At least, the above outline of the situation is the way it has gradually developed here at Haynes-Griffin, and it is my personal view of the situation. By reason of this fact we have taken definite steps to organize ourselves in conformity with changing conditions.

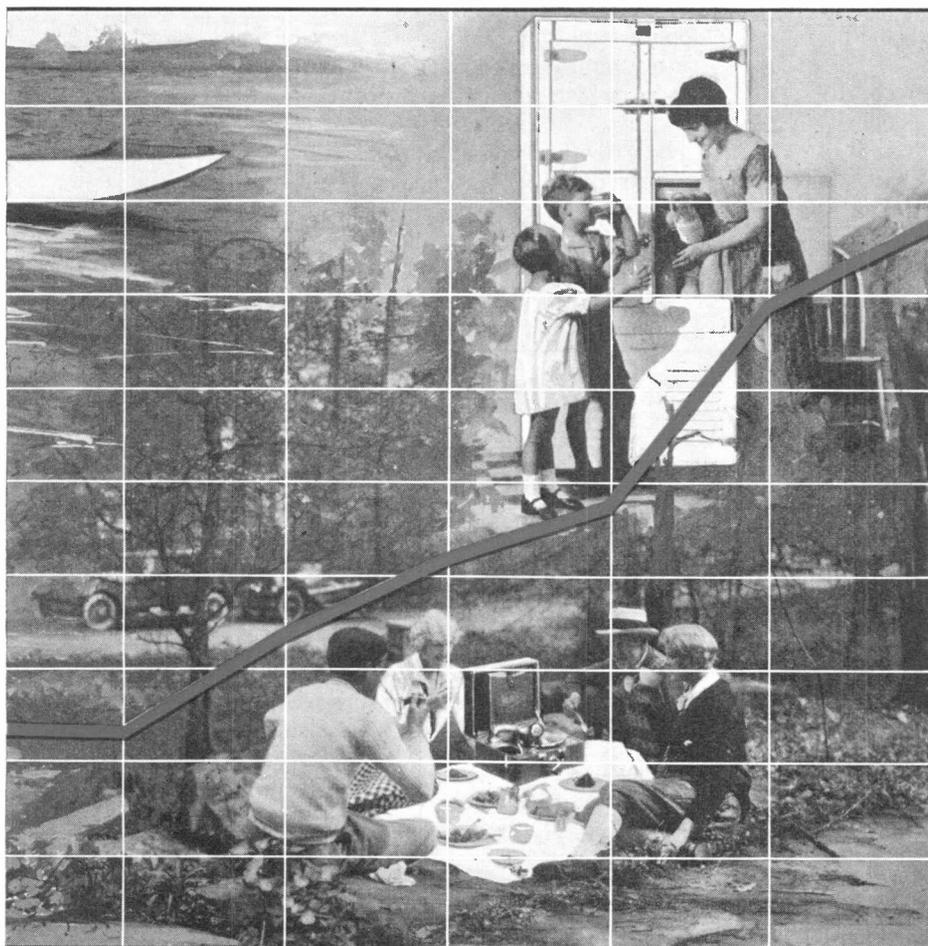
First of all, I would like to point out that while we believe that Haynes-Griffin has found the definite



Sidelines to *Fill the* *Every radio merchant should* *have a sideline with a Summer*

answer to the summer slump in the radio business, we still do not maintain that ours is the only answer or one which can be generally applied. The problem of the average dealer is not so much to find something that can be sold in the summertime, as to make a selection of things which are best adapted for his own particular locality and type of store.

Radio has a relationship to many different types of products. It is an electrical instrument; it is similar in many respects to musical instruments; it is a means of home entertainment; it was formerly a luxury and is rapidly becoming a utility; it is an article which involves service-after-sale. It is natural, in considering what can be added to the wares of a radio store, to consider first of all those things which are similar to radio, or are sold for the same purposes under like conditions; the reason being that one's present set-up and organization can function best with the sale of the same type of specialty and thus this previous experience will prove valuable.



JULY AUG. SEPT. OCT. NOV. DEC.

Summer Depression

peak, Griffin says — but local conditions must dictate the choice

In general, the things which can best be combined with radio divide themselves immediately into two classes. The first partakes of entertainment and covers a very broad field. The second partakes of the service-after-sale feature of radio, and is for the most part confined to electrical devices, mostly of strictly utilitarian purposes.

OUR STORE, by reason of location, personnel and methods of selling, was essentially adapted to the sale of articles intended for entertainment. We decided that we would add nothing in the way of a sideline which would detract from the appearance of our store, which, through a process of gradual development has become a specialty store, somewhat expensively furnished, and in which certain types of merchandise would be very much out of place. In other stores quite the opposite is true, and undoubtedly these stores would find such types of equipment as electrical refrigerators and other heavy

our sales over a twelve-month period, but to find something which will keep our stores busy and active during the hot weather.

I HAVE little faith in so-called cure-alls, whether they be for bodily ills or for radio merchandising problems. There is not, in my opinion, any such thing as an ideal sideline for all radio dealers. What may be good for one store may be very bad medicine for another store. Consequently, no dealer would do well to copy blindly the plan of some other store. The best he can do is to combine the experience of many other stores, secure all the facts within the limit of their experience, consider them in the light of their application to him, and the result will probably be a plan different in many details from that adopted by any other dealer.

Three years ago Haynes-Griffin was a 100 per cent exclusively radio dealer. Nothing was sold in our stores except that which was used in radio. Today only about

By
John W. Griffin
President, Haynes-Griffin, Inc.

electrical apparatus more practical. This, therefore, is the first decision to be made by any radio retailer: "Will I seek sidelines of purely entertainment value, or will I seek lines which are for the most part articles of utility?"

THERE is another very important consideration in picking sidelines. The sideline should, theoretically, be every bit as seasonal as radio, but its peak demand should come in the summer, when radio is at its lowest ebb. I utter this warning lest the radio store, in its desire to extend its activities, become a hodge-podge of merchandise. By this I mean the radio dealer should not take on a line of Christmas tree supplies, which have their peak at the same time as radio. His store, during the radio season, should be sufficiently busy with radio alone to occupy his complete attention. If that is not the case, then he has not sufficiently developed his radio market and his attention might better be devoted to doing this rather than to seeking other products to increase his sales.

What the radio dealer needs and should look for is a sideline that has its peak during the summer months and which is relatively dead during the remainder of the year. For the problem immediately at hand is not to increase

50 per cent of our sales are in radio and accessories. The change has been a gradual one but I myself have been surprised to see how easily it has been made.

THE first addition to our line of merchandise was taken on more or less as a matter of necessity. This is how it came about.

Simultaneous with the development of the new type of phonographs and electrically-recorded records, some of the large phonograph companies began to build combination radio and phonograph instruments. Some of these machines were beautiful examples of cabinet work and we shortly experienced a demand for them on the part of our radio customers.

Casting about for a source of supply for these machines, we formed a connection with the Victor Talking Machine Company as a Victor dealer. We found out that in order to buy these combination machines we would likewise be obliged to carry a comprehensive line of straight phonographs and a complete stock of Victor records. In other words, it was a case of take all or nothing.

After we had phonographs and records we determined to do as good a job as possible with them and secured a phonograph specialist and an expert record saleswoman to handle these products. The success of this department surpassed our most sanguine expectations. After two years experience, phonographs and records constitute better than 25 per cent of our whole business, and the profit on our record sales alone is sufficient to pay half the rent of the store.

We can definitely mark up phonographs as a profitable and worthwhile sideline so far as Haynes-Griffin is concerned. I recommend it strongly to every radio dealer whose facilities and location permit it. There is no question but that there is a definite revival of public interest in phonographs and the regular day-in and day-out business that the sale of records brings will in a large part compensate for the falling off in the sale of B batteries.

Phonographs, however, are not the final answer to the sideline question, because their sale is nearly as seasonal as that of radio sets. The portable phonograph has, however, achieved a far stronger position than the portable radio set, and there is a steady, consistent market for this type of phonograph, which extends through the hottest months of the year.

Our next venture in sidelines was chosen deliberately, because of the fact that it sold best during the summertime. Our selection was moving picture cameras and home projectors for amateur use. Originally we handled home moving picture outfits exclusively, but within

the last year or two have gradually extended our camera line to include the usual still cameras, photographic supplies of all kinds, and printing and developing. Printing and developing is handled for us by an outside concern which allows us a profit of 40 per cent on all work done.

The growth in home moving picture outfits during the last year or two has been tremendous, and there is no question but that the volume in this business will double or triple within the next few years. The demand for this line of supplies runs all through the summer and hits

another brief peak at Christmas time, when they are purchased for gifts. We have not developed this line at Haynes-Griffin nearly as intensively as it should be, but from our experience with it, I can recommend it as worthy of the most serious consideration, and for many dealers I am sure it can easily be made the difference between profit and loss for the summer months.

I have already said that the principle upon which we selected our sidelines was that they should work in with our general plan of specialty selling on the basis of entertainment. Phonographs and movie outfits fill practically the same place in home entertainment as does radio, and so do not constitute a radical departure in our selling methods.

Sidelines

that have proven practical include:

Phonographs and records.

Portable phonographs.

Radio and phonograph combinations.

Motion picture cameras and home projectors.

Still cameras and photographic supplies.

Boats.

Outboard motors and marine supplies.

Electric refrigerators, electric fans, vacuum cleaners and other appliances.

Tennis, golf, fishing tackle and similar sporting goods.

LAST year we made a further step in our sideline business by taking on the sale of small boats and outboard motors. It is evident that these are, of course, not for use in the home, but do, nevertheless, come within our definition of entertainment, because there are thousands of families who find in small boats the same recreation and entertainment in summer months that their radio sets provide during the winter months.

On the sale of small boats and outboard motors we concentrated all the energy and imagination that we had used in our most enthusiastic days with radio. We showed, first of all, a complete line of all the leading makes of outboard motors and had on display throughout the season nearly twenty small boats of all sizes and descriptions. We maintained on the water a separate demonstration headquarters where these boats could be shown in actual operation. In other words, we used all the merchandising skill we had acquired through five laborious years with radio. In this we were in advance of the boat business as a whole, because, in general, there were few organizations in the boat business that were using the methods that had proved successful in the high pressure selling of other commodities.

I am convinced that many radio dealers will find in outboard motors and in small boats the same conclusive answer to the sideline problem that we did at Haynes-

Griffin. Not every dealer will be in a position to handle them, to be sure. But for many radio dealers located in towns on navigable waters, the harvest is ripe and ready for the taking. In general, boats should be carried as well as motors. This requires, of course, considerable display space, but if this is not available motors alone can be sold in worthwhile quantities.

In our first year in the boat business we quite wisely, I think, devoted our major efforts to our radio customers, and I find upon examination, that of the boats we sold last season, fully one half were sold to people who were already on our books as radio customers.

And not only did our already established clientele of radio customers help us with the sale of boats, but the opposite was also true. The sideline of boats helped our radio business. Radio customers came to us to buy boats. Boat customers came to us to buy radio sets. Each business supplemented the other business. Each sideline helped us to sell other sidelines.

SO FAR this represents our experience with sidelines, and I am inclined to believe that we have come to the end of the road. Such additional lines as we may take on will be those directly connected with boats and their accessories. Our line of endeavor for the next few years is finally definitely established, and we have been relieved of the problem which has been the most troublesome one to us since our first experience in going through a summer with radio alone. It has given our whole organization new enthusiasm and energy. It is a blessed relief to enter the month of April knowing that our sales curve is not beginning a steady and depressing drop, but to realize on the other hand that we are entering a period of renewed activity and potential profits.

If, for any reason or other, we had decided not to handle boats and outboard motors, I believe that the next best bet for us would have been sporting goods. Not sporting goods in general, but a specialized classification on which our store could have specialized in the same degree that we had in radio. I am sure that our initial choice would have been camping supplies. Automobile tourists are growing in numbers every year and the innumerable articles that they require, such as tents, folding cots, cooking utensils, and a hundred and one things that go to make life on the roadside livable, are in great and growing demand. There are few stores which show a comprehensive line of articles of this nature, and it would not be difficult to build up a good business in products of this kind.

OTHER stores might find it profitable to specialize in sports which are popular in the summer time. There is room for more stores stelling fishing tackle and fishermen's supplies. The golf supply business has many outlets but they are hardly ahead of the great and increasing demand of the forwing number of golfers throughout the country.

I would like to say, also, looking at the brighter side of the picture for a moment, that I am sure the dealer who has heretofore dealt exclusively in radio will have a pleasant surprise awaiting him when he comes to handle a sideline. It is not until then that he will fully appreciate how difficult are the merchandising and selling problems which he has successfully overcome in radio, and our experience has been at least that in selling the sidelines we have adopted, our problems and difficulties have been very simple and easy as compared with radio.

National MUSIC WEEK

May 6 to 12

THE annual National Music Week takes place this year during the week of May 6. It is a week when the attention of the country is focussed upon good music, and radio and music retailers should take every means to co-operate with and capitalize this movement.

Music Week will be inaugurated by a special broadcast during the Atwater Kent hour on Sunday evening, May 6, and special musical features will also be broadcast by many stations during the week. Schools in many cities also are co-operating by installing radio receivers so that students may hear the educational and musical features that will be part of the Music Week activities.

The photo shows the window display which won first prize in the window-display contest held last year by the Musical Industries Chamber of Commerce in conjunction with the 1927 Music Week. The window was prepared by the Lyon & Healy Company, Chicago.

First prize awarded to Lyon & Healy, Chicago, by the Music Industries Chamber of Commerce for the National Music Week window display contest held last year.



Preserve



"Never place your hands on a man (or woman) when talking to him or her."

MANY a radio merchant uses consistent space in the newspapers and spends much time dressing his windows, in order to attract customers into his store, and then wonders why they so often walk out without buying. It is one thing to attract shoppers, and most stores in good locations can pull their share of them, but not all merchants turn their shoppers into buyers.

Harry Passon, head of the Passon Radio Co., Philadelphia, is one merchant who has learned the trick of turning a shopper into a buyer and of making buying such a pleasant and satisfactory transaction as to earn the buyer's custom. He believes that getting the customers into the store when they are already in a buying mood is only a beginning and that success lies in keeping them in that mood.

"We spend only two per cent of our sales on newspaper advertising," says Mr. Passon. "Our new store is carefully stocked and the fixtures have been specially designed to display the merchandise to best advantage. Our windows are attractive and well-lighted; they are dressed twice a week without fail. But, where we spend the greatest effort is with our salesmen, for it is they who come in personal contact with the buying public. We have plenty of salesmen because we don't believe in ever keeping a customer waiting. When a man or woman

When a customer steps into your store assume that he has entered in a buying mood and treat him

takes the trouble of stepping into our store, we assume that he or she originally entered in a buying mood. It's up to us to see that the cash register tinkles before the prospect walks out."

"Most of the men are here on a percentage basis. They are assured of a certain steady income by being awarded floor days. A careful record, on indexed cards,



"When a person enters the store, avert your eyes; turn your head; do not stare."

is kept of all who enter and do not immediately buy. These are followed up by the salesmen when they are off the floor.

"I am very careful whom I put on. They must know radio and they must be gentlemen. Half of our ground floor is devoted to sporting goods, and toys are sold on the second floor. Ordinarily it would be hard for the salespeople in each department to co-operate with one another but we have made up a set of instructions for the salesmen that has given us very gratifying results."

The instructions are so widely applicable to all radio dealers, and particularly to those who offer other merchandise, that most of it is given here:

INSTRUCTIONS TO SALESMEN

(These are not rules for there are no exceptions. The man who cannot follow them is not wanted.)

Floor Man

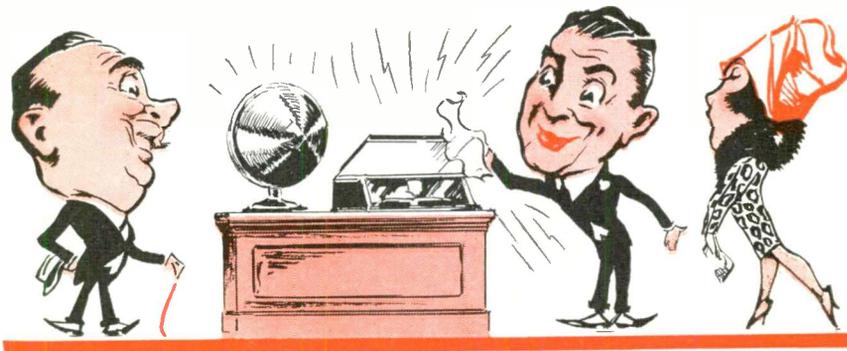
1. Watch the floor on both sides —Radio and Sporting Goods. Your obligation is not solely in your own department.



"Stay away from the young ladies in the accounting department. They have plenty of work to do."

“BUYING Mood”

accordingly, says this Philadelphia radio merchant.



“Use your handkerchief when raising a finely polished lid. It creates a subtle impression of superior quality.”

2. Greet each customer cheerfully. Never say “something?” or “something for you?” Say pleasantly “How do you do.” Any intelligent visitor will then express his wishes. Should he fail to do so, and if he is in the sporting goods part of the store, say *pleasantly*, “Would you like to see some sporting goods?” If the reply is “yes,” then say “Just a moment, please, and Mr. Smith will serve you.” Call Mr. Smith, or whoever may be disengaged, then resume your position on the floor.

3. If you learn that no one will be shortly disengaged in the sporting goods department, do the best you can to attend to the customer’s wants. If you feel unable to do this, you have no right to accept a floor day. Because there is no one in that department to give service, do not go to pieces; do not let the visitor know that confusion is existing; serve them as pleasantly, calmly and efficiently as possible. In a like emergency, the sporting goods specialist will befriend you.

4. First of all, see that there is an adequate display of sets. See that these sets are wiped off (by yourself), free from dust and dirt. See that each and every set is operating properly, and if any set is not, report the set by location, model and number—at once—to the service department. See that everything is kept neat and straight.

General

5. Watch the floor. Greet every prospect with a smile. Be pleasant, courteous, cordial at all times, but never get familiar. Never place your hands on a man (or woman) when talking to him or her, or while walking through the store. This practice is in very bad taste. When talking to visitors keep your hands out of your pockets; stand erect, never lean on anything.

6. When a gentleman or particularly a lady, enters the store, avert your

eyes; turn your head; do not stare continually until the person reaches you. Rather, watch out of the corner of your eye, and when the visitor reaches a spot a few feet away, then turn your head and greet him with a pleasant smile. Did you ever notice how uncomfortable you felt when you walked into a strange store and noticed several pairs of strange eyes ogling you as you approached your destination?

7. Handle the radio receivers with the utmost reverence and care. Use your handkerchief when necessary to raise a finely finished lid. Bare fingers leave unsightly marks and the careful way in which you handle your merchandise subtly creates an impression of superior quality with the customer.

8. When a visitor asks to see any one in particular, escort him to a chair. Then without delay try to locate the party in question, bring him back and present him to the customer. Should the person asked for be out, say “I’m sorry that Mr. Smith is out. Is there any way in which I can help you?” If he says “No,” and starts to leave, secure his name, with the initials and address, so that you may tell Mr. Smith. Suggest that you’ll be glad to have Mr. Smith get in touch with him upon his return. Do and say all this in such a cordial, courteous manner that the visitor will be deeply impressed with our sincere desire to serve and be of help to him in every possible way.

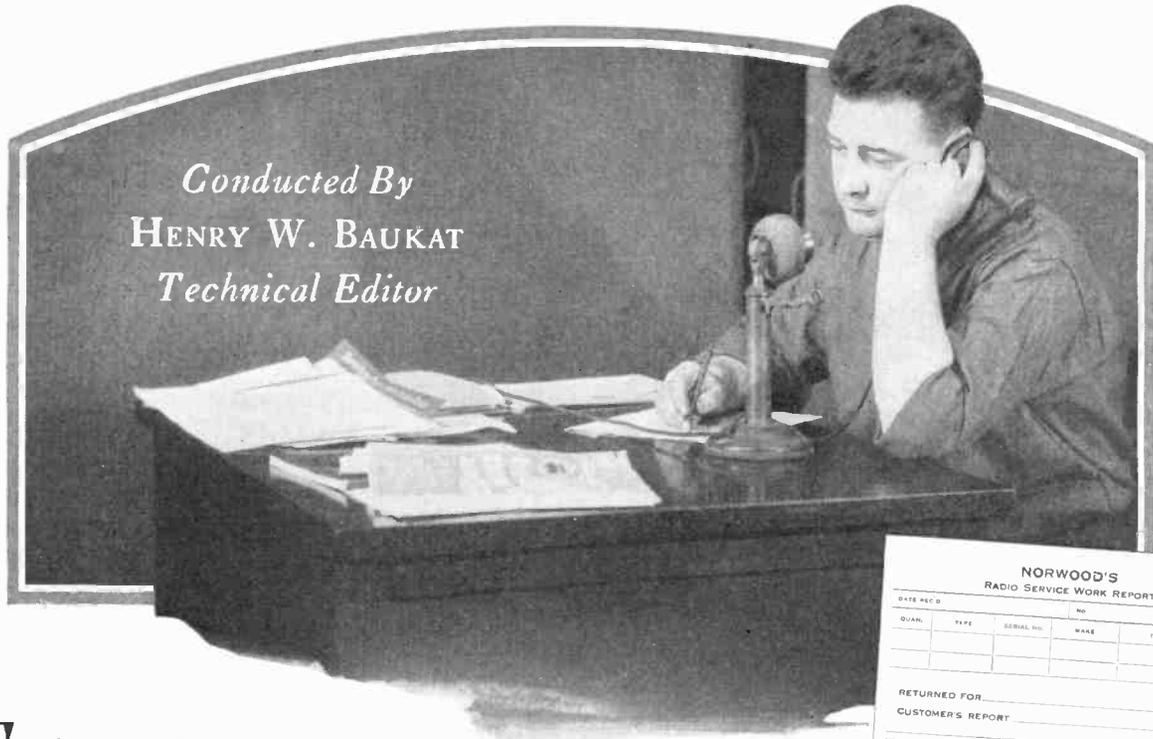
9. Stay away from the young ladies in the accounting department. Do not remain there holding conversations; this will not be tolerated. They always have plenty of work to do, and you make matters worse when you distract them. Never address them by their given names while in the store. This applies to the other salesmen, while in the



“Make sure your breath is not offensive; use anything to counteract halitosis.”

(Please turn to page 89)

Practical SERVICE Methods



Telephone Record Saves TIME and MONEY

Special book at telephone to record service calls, and printed form for work done, turn loss to profit

NORWOOD'S RADIO SERVICE WORK REPORT				
DATE REC'D	NO.			
QUAN.	TYPE	SERIAL NO.	MAKE	TUBES INCLUDED
RETURNED FOR CUSTOMER'S REPORT				
REPAIR CHARGES				
DATE	LABOR DESCRIPTION	BY	TIME	CHARGES
DATE	MATERIAL DESCRIPTION	QUAN.	COST	UNIT
TOTAL				
REMARKS				
DATE COMPLETED				
DATE DELIVERED				
DISPOSITION OF APPARATUS				
NORWOOD'S RADIO SERVICE WORK REPORT				
DATE RECD	NO.			
QUAN.	TYPE	SERIAL NO.	MAKE	TUBES INCLUDED
ACKNOWLEDGMENT				

SO MANY merchants have not been able to make a profit with radio that some have come to the conclusion that radio and profits do not go together. In most instances, however, it has been the *service* end of the radio proposition that has been the stumbling block and that has kept the dealer away from the profit that should be his. F. E. Norwood of Norwood's Music Store at Biloxi, Miss., saw this very clearly after being in radio for some time without being able to operate at a profit. As a result he worked out a new way to handle service. After putting the plan in practice his profits began to show. He has been on his new plan for a year now and that year has been a profit year. This is how Norwood turned his loss to profit.

"The service end of selling radio is the stumbling block to profit in most instances," says Norwood in discussing what he did and what happened. "Our radio department wasn't anything to speak of from a profit angle up to a little more than a year ago. Then we made some changes, put the service end of the business on a new basis and our profits began.

"One of the first things we did was to stop giving service for any definite length of time. In place of this was substituted three free service calls. We also stopped talking service when we were trying to sell a set or when we sold a set. Quality of the sets and the programs available were featured instead. Then when the sale was made we told the customer that we gave three free serv-

ice calls and in every instance it pleased them. It made them feel that they were getting something for nothing and that seems to always please people. In other words we have *stopped holding free service* before the people as an incentive to buy and have substituted the set and the things it will do as sales arguments.

“**A**NOTHER thing, we have a radio call book right at the telephone in the store and whenever a service call comes in it is entered in that book as we take down the message over the phone. Our service man then gets the call from the book and goes to it without delay. In our radio service work we also use a special form that we have designed ourselves. At the top there are spaces provided for the entrance of the date received, the quantity of sets received, type, serial number, make and number of tubes. There is also a space for the entrance of reason for return and the customer's report on the set. Thus space is provided for the entrance of every detail that might be necessary.

“At the bottom of the form there is a perforated coupon which we fill out with practically the same information and after signing it give it to the customer as a receipt for the set. When the set is returned and installed the customer signs the receipt acknowledging its return and gives this coupon back to us. That gives us a record of having returned the set.

“The central portion of this form is ruled off for the entrance of labor and material charges so that when the service job is finished and all the details entered we have on the one form a complete record of what was done, how much it cost and what we received for it.

“These forms gives us an accurate picture of the profit end of the service calls that we make. By giving three free calls we make the customer more careful whereas when we serviced for a fixed length of time they were calling us out whenever static came in and for all sorts of other reasons. The three free calls are soon used up and then we begin to charge for all calls. This policy has enabled us to put our service station on a paying basis whereas we never made any money out of it until we did this. The fact that we have eliminated free service with the exception of three calls per set and the further fact that we know just what every call nets us has been the secret of making a profit from this phase of radio merchandising.”

Controlling Line Voltage

A suggestion comes to us from the Wisconsin Radio Trade Association, that a good way to prevent tubes from burning out in A.C. sets where the burn-out is due to excessive line voltage is to place a 100-watt lamp in series with the set. The transformers of the usual A.C. set are designed to function on 110-115 volts.

Operation at this voltage insures that the correct voltage is being supplied the filaments of the A.C. tubes as there is no resistance in the filament circuit by means of which to control the voltage. Consequently if the line voltage should go above 115 volts there will be a corresponding proportional rise in the voltage supplied the tubes which in most cases means burned-out tubes. The installation of a lamp in the circuit acts as a ballast to the line voltage. A 100-watt lamp will pass enough current to take care of all the demands of an ordinary six-tube A.C. receiver.

Polarity Test Paper

Your technical editor was reading through a handbook on chemistry and physics the other day when he came across the following formula for a polarity test paper. Most any druggist will make up the chemicals for you at a very small cost, and a piece of filter paper treated in the manner indicated below will be a very handy thing for the service man to carry around in his pocket.

To prepare the paper, dissolve one gram of phenolphthalein in a small quantity of alcohol. Add the solution of phenolphthalein to 100 ccm. of a 10 per cent solution of potassium chloride in distilled water. The filter paper should be soaked in a solution and dried. A slip of paper moistened with water and placed in contact with the two terminals will show a bright red stain at the negative terminal.

Grid Suppressors Not Critical in Resistance Value

Many radio enthusiasts considering the grid suppressor method of stabilizing the tuned r.f. circuit, are apt to hesitate because of the uncertain resistance value to employ. Resistance values anywhere from 200 to 3,600 ohms are now being used with standard 301-A type tubes in typical tuned r.f. circuits. Yet tests show that the resistance value is not critical. From 600 to 800 ohms will usually be found about right when using the 301-A type tube and in the conventional tuned r.f. circuit with a plate voltage not exceeding 90.

For precise results, of course, with just the desired degree of grid suppression, it is worth experimenting with higher and lower values of resistance. The main factor, however, is to avoid inductive resistance. Many types of resistance which will perform well in plate voltage regulation and other applications, will be found unsatisfactory as grid suppressors. It is also important to guard against capacity effects within the grid suppressor.

Testing A.C. Tubes

From the Sonatron Tube Company, Chicago, Ill., comes the following information regarding the method of testing the new types of A.C. tubes. The '26 type is tested the same as any 301-A. However, care must be taken that only 1½ volts is used on the filament. A higher voltage will burn the tube out immediately. For



A.C. tube test circuit

the '27 type, it is necessary to make an adapter but this is very simple. All that is needed is some wire, an old 4-prong tube base, and a 5-prong socket. The five wires are soldered to the socket connection as shown in the accompanying sketch. Solder the grid wire to the grid prong of the base, the plate wire to the plate

prong of the base, the positive and negative filament to the positive and negative filament prongs of the base respectively. Now there will be one wire left on the five-prong socket, which is the cathode wire. This is to be connected to the negative filament wire of the base. The adapter is now ready to be used on any tube tester. The '27 type should be heated for about 1 minute in the tester before taking the milliampere reading as correct, as this time is necessary in order that the tube may reach normal operation.

Measuring Voltages of B-Power Supply Devices

By LOUIS STALDER

Westinghouse Electric & Manufacturing Company

The B-power supply device also known as B-eliminator, has made a deep inroad into the radio field. This was possible on account of a need, deeply felt by the radio fan, for a source of power that should never fail or weaken but constantly deliver the proper voltages to the tubes of the radio set.

The importance of proper voltages is not in general emphasized as much as it should be. Too high a B-voltage for the radio frequency stages will make the set oscillate and too low a B-voltage for the audio frequency stages will produce distortion. For the superheterodyne set, difficulties will be experienced with the harmonics (stations coming in at different dial settings), if the oscillator tube is supplied with more than twenty-five or thirty volts.

Certain B-power units have means for adjusting the different voltages. While making adjustments, voltage measurements should be taken as a guide. Voltage readings will also permit making better application of the non-adjustable units.

The markings on the terminals of B-power supply devices (22½, 45, 90 and 135 volts) means very little and one will be surprised when checking the voltages supplied by different units. Due to the high internal resistance of gas-filled and filament rectifying tubes, the characteristics of the transformers, the resistance of the filtering circuits, the voltages supplied by these devices will drop with an increase of load.

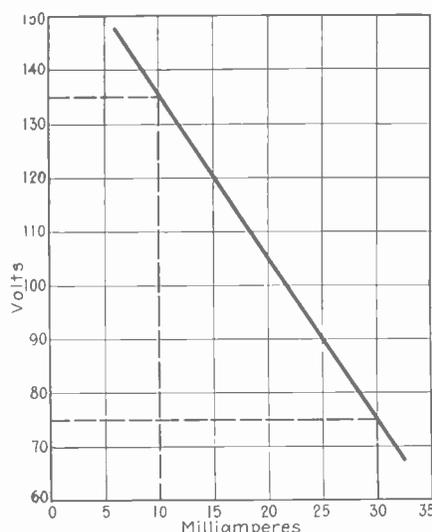


Fig. 1—Regulation curve of a B-power supply device

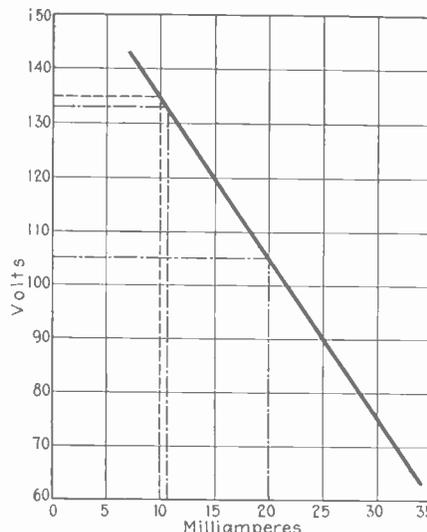


Fig. 2—Diagram showing voltage errors for low and high resistance voltmeters

A curve showing the voltages corresponding to different loads is called the regulation curve of the B-power supply device. Such a curve is shown on Fig. 1 for a particular unit.

B-power units supply the plate voltage for the tubes and their load is made of the total plate current. From Fig. 1 it is seen that if a certain set with 3 tubes imposes a load of 10 milliamperes to the B-power supply unit, the power tube will get a plate voltage of 135 volts, while for a set with 8 tubes and a corresponding load of 30 milliamperes, the voltage supplied by the same unit will drop to 75 volts.

The regulation curve shows also that the voltages of B-power units cannot be measured with ordinary voltmeter taking something like 10 milliamperes for their operation. As shown on Fig. 2, such a voltmeter would indicate only 105 volts on account of the additional load of 10 milliamperes imposed on the power unit, while 135 volts are supplied to the radio set when the voltmeter is not in the circuit.

FOR this reason, a special voltmeter having a minimum resistance of 750 to 1,000 ohms per volt should be used for this purpose. The same Fig. 2 shows that an additional load of one milliampere for the operation of the high resistance voltmeter will drop the voltage to 133 volts giving an error of 1½ per cent which is negligible for radio tube application.

For the determination of regulation curves and also for an absolute method of measuring B-power unit voltage, we could not recommend anything better than the potentiometer method illustrated by Fig. 3.

In this method, an ordinary voltmeter is being used and so that no additional load is imposed on the B-power supply device, an outside source supplies the power for the operation of the voltmeter. This outside source is shown in Fig. 3 as dry cells (B-battery) but another B-power unit might also be used.

By means of a potentiometer (a 2,000-ohm one will do nicely), the voltage supplied by the outside source between the points A-B may be adjusted to be just equal to that supplied by the B-power unit. This condition is obtained when there is no difference of potential between the points B and A. Therefore, no current flows from the outside source to the radio set, nor any current flows from B-power unit to the voltmeter. The balance is

reached when the low-resistance galvanometer connected between D and A indicates zero. The indication of the voltmeter will then be the true voltage supplied to the radio set without any additional load.

Testing B power supply devices as explained in this article means better selection, better adjustment, better application and general satisfaction.

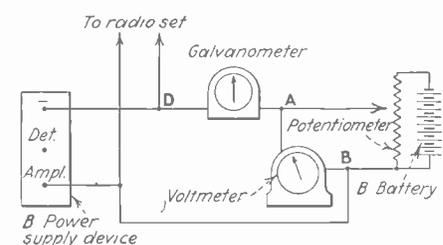
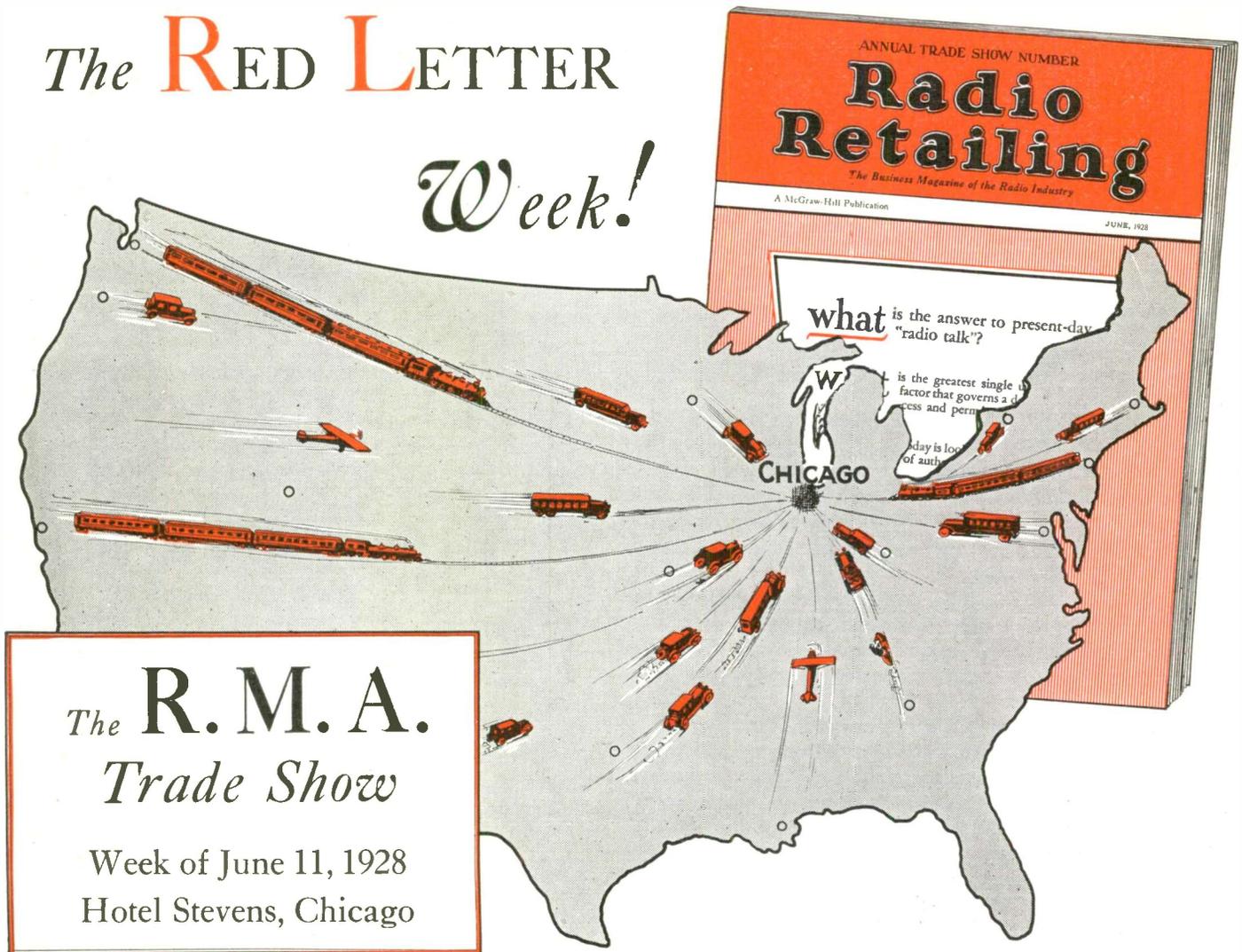


Fig. 3—Diagram for potentiometer method of measuring voltages of B-power units

June 11 to 15

The RED LETTER

Week!



Some Statistical Reasons Why You Should BE There

195 exhibitors showing all the new 1929 models of every type of radio product.

30,000 square feet of exhibition space in two large ballrooms—and ALL sold out.

Three solid floors of exhibits as well as the two exhibition halls.

25,000 radio merchants, distributors, manufacturers and representatives will attend.

2,500 covers prepared for the R. M. A. banquet and entertainment, Thursday, June 14.

A Few of the Details—

IT IS the second annual Radio Trade Show held in conjunction with the fourth annual convention of the Radio Manufacturers' Association. Major Herbert H. Frost of Federal-Brandes, Inc., Newark, N. J., is chairman of the Trade Show Committee, and Henry C. Forster, of the Utah Company, Chicago, is chairman of the R. M. A. Convention Committee.

The trade show is being managed for the Radio Manufacturers' Association by U. G. Herrmann and G. Clayton Irwin, 1800 Times Building, New York City, to whom inquiries should be addressed.

Special trains are now being prepared from many leading cities, including, at the present time, New York, San Francisco and Los Angeles. Information may be

secured from your local passenger agent. The convention rate of half fare for the return trip will apply.

Admission will be to the trade only and by invitation only. Invitations will be mailed to the trade about April 25th by the trade show management. If your invitation has not been received by May 1st, write to G. Clayton Irwin at the above address.

The June issue of *Radio Retailing* will again be the annual Trade Show Number and publication will be timed so as to coincide with the opening of the Trade Show.

And—last but not least—the official R. M. A. Daily Newspaper to be published at the convention will again be sponsored by *Radio Retailing*.

Radio Retailing

A McGraw-Hill Publication

APRIL, 1928

Vol. 7, No. 4

Does Your FAVORABLE

The Importance of First Impressions

WHAT impression does your store-front make on the passerby? And what impression does your store interior make on the customer once he has entered?

The importance of the good appearance, neatness, and attractive layout of a retail store has been deeply impressed upon the editors of *Radio Retailing* after a survey of the radio trade in a dozen leading cities of the country. Invariably, the stores that were doing the biggest business were the stores that paid meticulous attention to appearance.

Clean sidewalk, dustless windows, neat displays, followed by clean interior, polished cabinets, and well arranged merchandise—and the answer was, “Business satisfactory—as good as can be expected for this time of year.”

And just as inevitably—dirty sidewalk, dirty windows, dusty displays, dirt and carelessness evidenced inside and out, cabinets unpolished, merchandise thrown around—and the answer was “Business is awful, the worst ever.”

Radio cannot be sold in squalid surroundings. The stores that pay strict attention to the impression they make upon the casual visitor will be the ones who stand the best chance of getting the business. That is an incontrovertible law in the sale of radio.

Two Things to Think About

“TOO MUCH service and too many lines.”

Those two causes have been advanced by C. L. Dennis, formerly manager of the merchandising service department of the Music Industries Chamber of Commerce, as the reasons why, generally speaking, the music trade has not made money out of radio.

They are worthy of consideration, not only by the music trades, but by every type of retail radio outlet. Reduction of service costs and the establishment of definite service policies, as well as concentration on fewer lines, are the next moves necessary if this industry is to advance to greater prosperity.

Speaking of Saturation—

AN ANALYSIS of *Radio Retailing's* annual survey of radio sales, published last month, brings to light some interesting facts. First, that the boom days are apparently over and radio is settling down to a normal annual business, at retail, of approximately half a billion dollars, with a yearly production of about a million and a half sets.

Radio saturation, it discloses, is progressing slowly, having advanced less than three per cent in the past

year. Radio is now in 27 per cent of American homes, as compared to a saturation of 45 per cent in phonographs; 58 per cent in automobiles; and 65 per cent in telephones.

And, this year, the automobile industry, after 25 years, and a saturation almost twice as great as radio, is experiencing the greatest year in its history.

As has been said many times before, the business is there for those who have the brains and initiative to go after it.

“The Junk Man, the Soda Clerk and the Radio Dealer”

THAT analysis of the Department of Commerce industrial survey which appeared in the February issue, and which brought to light the fact that the average junk man did more business and made greater profits than the average radio dealer, seems to have stirred up a hornets' nest.

In that analysis, responsibility for the lack of profits on the part of the retail trade was charged directly to neglect by the manufacturer of the welfare of his retailers.

The charge is reiterated by retailers, denied by manufacturers. But in the light of facts, the manufacturer must now think seriously about cutting down widespread distribution and aiding fewer retailers to greater profits. Radio manufacturers have found that numerical strength is secondary to selling strength and profit strength.

The prosperity of any industry is directly dependent upon the prosperity of its retail trade; and the prosperity of any retail trade is the direct responsibility of that trade's manufacturers.

Receivers Will Be Designed for Specific Markets

PRESENT indications point out that, next year, the universal receiver, designed to receive all kinds of reception in all parts of the country, will start down the toboggan.

In its place will come receivers designed to meet specific broadcast reception requirements in different parts of the country. It has long been known that receivers which are designed to function best in the vicinity of broadcast centers are almost useless in localities far removed from station centers. And the reverse also holds true, of course.

Therefore, taking into consideration the greatly varying distances from broadcasting stations, and the various line voltages found in different parts of the country, it is a pretty safe prediction to say that the era of specialized receivers built for certain specific market conditions is just around the corner.

Store Make

IMPRESSION?

*Appearances, Foolish Competition
The Junk Man, Saturation
Cortlandt Street, Cake Eating*
and other things discussed by
the editors

Cortlandt Street Is Worried

CORTLANDT Street, New York, acknowledged center of radio activities, is worried. Some of the biggest gyms have passed, or are passing out of the picture.

Too bad.

Tears of sorrow will undoubtedly be shed throughout the industry, because, no matter how wrong their policies or how rotten their merchandising morals, the Cortlandt Street fraternity sold much radio and made much money for many manufacturers. And making money for the manufacturer, dear kiddies, is one of the first requisites of a good retailer. So long as the Cortlandt Street boys made money for the manufacturers, everything was hotsy-totsy, and the manufacturers sold them the goods.

But now, Cortlandt Street is worried. Cortlandt street is not doing the business it used to do. Stores are failing on Cortlandt Street. The old, old law that slashing prices means slashing profits is beginning to be proved again. Verily, children, the moral of today's lesson is "They that cut prices shall cut their own throats."

Foolish Competition

THE broad principle underlying healthy competition is to see who can sell the most merchandise at the greatest profit. But in the radio industry competition has resolved itself into a struggle to see who can sell the most merchandise at the lowest possible profit.

This competition to see who can sell the cheapest is folly. Now, even Cortlandt Street, the Capitol of Cut Prices, is learning that lesson. Radio retail stores are rapidly thinning out down there. The slashes are cutting too deep.

Unfortunately, manufacturers do not seem to profit by the lessons which might be learned from the retail trade. We see reputable manufacturers deliberately building sets with the sole purpose of underselling their competition. Gentlemen, the retail trade couldn't make that policy pay. Is the radio manufacturing industry so vastly different that it thinks it may successfully survive a policy of price slashing?

Check House Current Voltage

THERE has been a good deal of trouble with A.C. sets because of tubes burning out. A.C. tubes have been designed to operate on a specific voltage. If the line voltage rises there is a proportional rise in the voltage operating the tubes; the result usually is a burned-out tube, or set of tubes. Some sets have provision for an increase or decrease in line voltage. This is in the form of a switch located in the set, whereby the primary of the power transformer may be adjusted to the particular line to which it is attached. However,

many sets haven't this safeguard against high voltage.

Therefore, every radio merchant, as soon as the sale of an A.C. set is made, should send a service man to the home where the set is to be installed, and check the line voltage accurately. If it is found too low or too high, suitable adjustment should be made in the receiving set before it is installed.

Can't Eat the Cake and Have It Too

THE two leading parts outlets in Dayton, Ohio, state that they are through with the parts business.

Why? Because, as one outlet puts it, "We are tired of being a service station for the Chicago mail order houses."

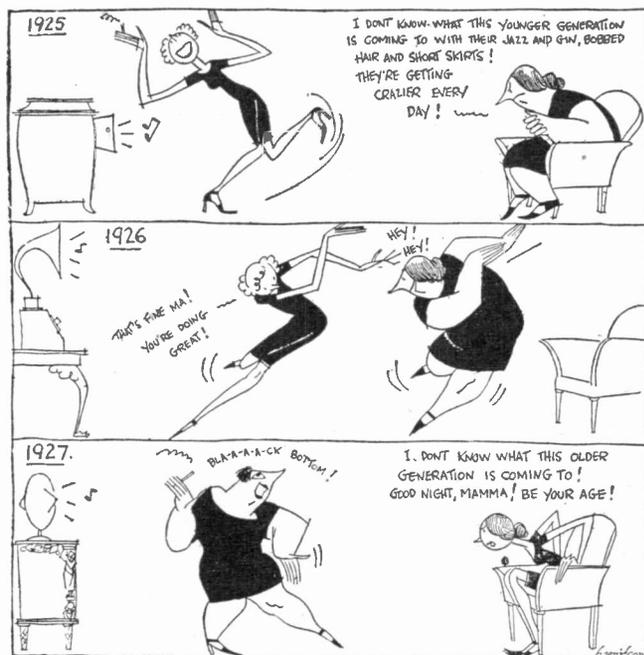
This dealer's trade in parts reached substantial proportions, approaching \$70,000 a year. But he found that mail order houses flooded his territory with catalogs selling parts to consumers at practically the same prices he had to pay. He refused to meet cut-price competition as such, and also, as he says, "got fed up on servicing, and often tricked into replacing, parts that had been purchased by mail order from Chicago."

"Parts manufacturers," he says, "who sell to mail order houses, can't sell to me." So he is giving up parts.

Parts manufacturers can't eat their cake and have it, too.

"NO HOME COMPLETE WITHOUT ONE"

More Truth Than Wit - - - - - By Haenigsen



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The RCA SUPER-HETERODYNE

everywhere acknowledged as the
supreme achievement in radio

-by radio experts
-by the trade
-by the public

Developed and perfected in the
Research Laboratories of RCA,
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This sign marks the leading



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RCA Radiola

MADE BY THE MAKERS OF THE RADIOTRON



RCA RADIOLA 32—De luxe cabinet model of the RCA Super-Heterodyne with the famous RCA Loudspeaker 104. AC or DC operation. Finest receiver that carries the RCA mark.

\$895 complete

RCA RADIOLA 30A—Custom-built cabinet model of the RCA Super-Heterodyne with special loudspeaker enclosed. For either AC or DC operation from house lighting circuit.

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*Are you using the RCA
Time Payment Plan?*



RCA Radiola

MADE BY THE MAKERS OF THE RADIOTRON

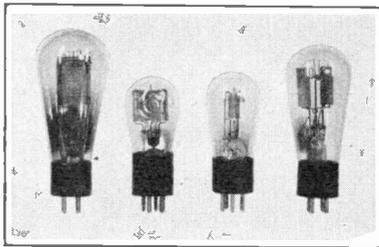


What's New in Radio and

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

New A.C. Receiving and Rectifying Tubes

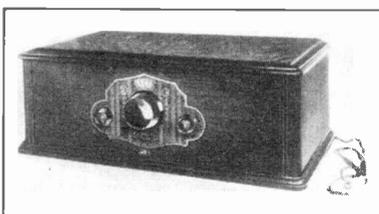
The Ken-Rad Corporation, Owensboro, Ky., has recently placed several new A. C. tubes on the market. They include the '26 and '27 types, having an intended retail price, respectively, of \$3 and \$6; and the '80 and '81 types, which use a mesh plate instead of solid metal, which, the manufacturer claims, cuts down the heat of these tubes considerably. The intended retail price of the '80 is \$5 and of the '81, \$7.50.—*Radio Retailing*, April, 1928.



A.C. Receivers

Several new models of receivers are being made by the A-C Dayton Company, Dayton, Ohio, including the illustrated set, model A-C 63, is a self-contained table receiver operating from 110 volt A. C. It has four tuned circuits using a four gang condenser, a protective output unit is used. It has four '26 tubes, one '27 tube and one '71 tube. The controls of the front panel are mounted on an escutcheon plate of antique finish. The cabinet is made of walnut with rounded corners and is 18 in. long, 11 in. deep and 7 in. high. The intended retail price is \$98.

Model AC-65 has the same characteristics as the AC-63 with the exception that it uses a '10 power amplifier in the last stage. The tubes used in this set are four '26, one '27 and one '10. It is mounted in the same size cabinet as the AC-63 and is similar throughout. The intended retail price is \$123. Model AC-66 utilizes the new '22 tube and has four '27 tubes with a '10 tube on 400 volts in the last stage. It is completely shielded and has a single dial control with two auxiliary controls, all arranged on a bronze escutcheon plate. The retail price has not been determined as yet but will probably be between \$150 and \$175. Model XL-61 is a battery operated set which can be adapted for use with a 32-volt farm lighting plant. The circuit is of the tuned radio frequency type with three tuned stages of radio frequency, one tuned detector stage and two audio frequency stages. It employs the '01-A tube throughout with the exception of the last audio frequency stage which uses either the '12 or '12-A tube. The case is made of walnut with a front panel similar to that on the illustrated set. The intended retail price is \$65.—*Radio Retailing*, April, 1928.



Radio Tables

A new Stenola radio table, model No. 60, to accommodate the Radiola 17, is being made by the Stettner Phonograph Corporation, 314 East Seventy-fifth Street, New York City. It comes equipped with an R. C. A. 100-A speaker and is finished in mahogany to match the receiver. The top measures 29 in. by 12 in. and it stands 30 in. high. This company also makes tables for Atwater Kent, Zenith, Kolster and Crosley receivers, each finished to match the set. Model No. 60A, for Zenith and Kolster sets, measures 29 in. by 14 in. on top and is 30 in. high.—*Radio Retailing*, April, 1928.



Eight-Tube Loop Receiver

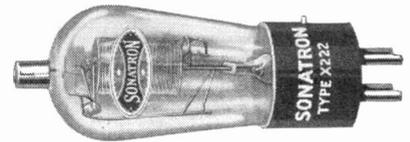
Another new radio receiver, made by the Zenith Radio Corp., Chicago, Ill., has made its appearance on the market, Model 15-EP. It is an eight-tube loop operated receiver, employing four stages of tuned radio frequency, tuned detector and three stages audio frequency amplification.

Five condensers are permanently balanced on one shaft, shielded chassis, single control, electrically lighted dial, calibrated in both meters and kilocycles. The cabinet is of selected walnut veneer, with folding loop and a self contained power speaker capable of reproducing all of the tones in the musical scale. List price (less tubes), \$375.

This is the second new model placed on the market by Zenith in the past two months. Additional models will be ready for announcement in the very near future.—*Radio Retailing*, April, 1928.

Shield Grid and Other New Tubes

Several new tubes have been added to the line of the Sonatron Tube Company, 108 W. Lake Street, Chicago, Ill. The '22 is a shield grid type tube and is intended for use for radio frequency or audio amplification. The intended retail price is \$6.50. The '50 is a super power amplifier and delivers, it is claimed, greater volume and produces correspondingly better tone quality than the '10. The '01B is intended for use in battery operated sets and draws only $\frac{1}{4}$ th of an ampere as compared to $\frac{1}{3}$ th ampere drawn by the '01A which it replaces.—*Radio Retailing*, April, 1928.

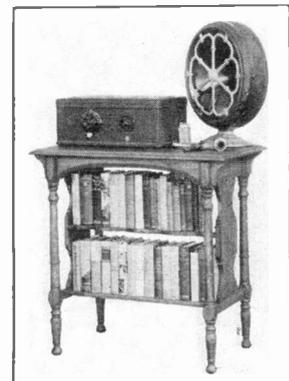


Tables for A.K. Sets

Since the announcement of the new Atwater Kent A. C. sets, there has been a demand for a table on which the set and speaker could be placed. To fill this demand, the Pooley Company, Indiana Avenue and 16th Street, Philadelphia, Pa., is making three radio tables. Model 2, illustrated, can be used as a combination radio table and book-shelf. It is finished in American walnut duo-tone. It is 30 in. high, 17 in. deep, with two shelves each 7 $\frac{1}{2}$ in. deep, and accommodates both the 37 and 38 models. The intended retail price, table only, is \$18.50.

Model 1, is finished in American walnut duo-tone and stands 30 in. high, 30 in. long and 17 in. deep, with one shelf 7 $\frac{1}{2}$ in. deep and also accommodates both models. Intended retail price, table only, \$15.

Model 5-R-1, is a combination radio table and speaker, equipped with built-in Pooley speaker and Atwater Kent A. C. reproducing unit. Double doors cover the speaker grille. It is finished in English brown mahogany duo-tone and stands 30 in. high, 21 $\frac{1}{2}$ in. long and 14 $\frac{1}{2}$ in. deep. The intended retail price, table only, is \$22.50. The Pooley Company states that all models with the exception of Nos. 1600, 2000-R-1 and 2000-R-1-D, can be made to accommodate model 37 and that the following models can be made to accommodate the new model 38: Nos. 2400-R-1, 2400-R-E, 2500-R-1, 2700-R-1, 2700-R-E and 2800-R-1.—*Radio Retailing*, April, 1928.



Where to Buy It

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

Super-Power Amplifier, Shield Grid and A.C. Tubes, A.C. and D.C. Set Tester, and Electrolytic Condenser are among the items announced by manufacturers this month.

Six-Tube A.C. Receiver

A new Synchronphase A.C. six, table model receiver, with single illuminated dial is being made by A. H. Grebe & Co., Inc., 109 West 57th Street, New York City. It consists of four major units, the receiver proper, a power unit, the mounting frame for supporting the receiver and the cabinet. It utilizes the following tubes: three '26 type, one '27 type, one '71-A in the last stage, and an '80 full wave rectifier tube. The chassis is constructed of heavy aluminum with four reinforcing ribs which add to its rigidity. The mounting frame, which supports the receiver proper, power unit and cabinet, is die-cast and is finished to match the cabinet which is made of selected mahogany veneer. The front panel is of stump walnut, with an oblong bronze-metal control board. Intended retail price, \$227.50, less tubes and speaker.—*Radio Retailing*, April, 1928.



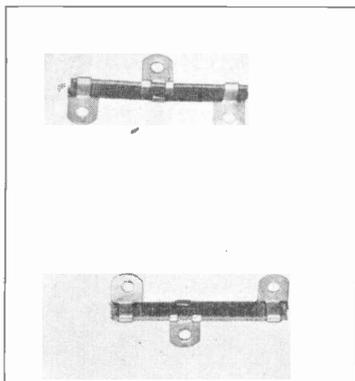
Weatherproof Aerial Lead-in Strip

A new contribution to radio, by the Belden Manufacturing Company, 2300 South Western Avenue, Chicago, Ill., is a rubber insulated aerial lead-in strip. The flat copper conductor is tinned. The flexible rubber insulation does not break at the sharp bends beneath the window.

It is also moisture and weather proof. The Fahnestock clips at both ends are soldered and riveted, assuring a positive contact of great strength.—*Radio Retailing*, April, 1928.

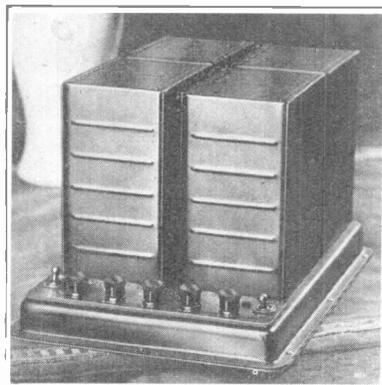
Tapped Resistors

Among the new products of the Carter Radio Company, 300 South Racine Avenue, Chicago, Ill., are two tapped resistors. The CU-20 is a 20 ohm center tapped resistor for the filament circuit of A.C. tubes. The TU-5-15 is a 15 ohm filament resistor for the new 222 shield grid tube, and is tapped at 5 ohms to provide the C-bias.—*Radio Retailing*, April, 1928.



Radiola 50

In response to a public demand for a cabinet model Radiola embodying the Radiola 17 and speaker 100-A, the Radio Corporation of America, 233 Broadway, New York City, has introduced the Radiola 50. Two doors in the front reveal the tuning control panel, with the speaker opening below. Four '26 Radiotrons are used as first audio and radio frequency amplifiers, one '27 functions as a detector, and a 171-A as the second audio amplifier. The cabinet measures 33½ in. high, 24½ in. wide and 14 in. deep, and weighs 88 lb. The intended retail price is \$285.—*Radio Retailing*, April, 1928.



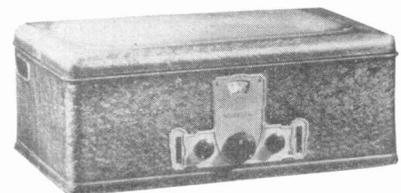
B-Power Unit

A B-power unit is being made by the Radio Corporation of America, 233 Broadway, New York City. This unit, model AP-1080, is of rugged construction, employs no acids or liquids to be replenished, and has no mechanical parts or tubes to be replaced. The operating mechanism is enclosed and sealed in permanent steel containers. It is extremely compact, measuring 7¼ in. by 10¾ in. by 6¾ in. high and will readily fit into the usual radio cabinet.

The operating cost is low as the device draws only 22 watts under average load. The power output is ample for any type of receiver up to the eight-tube circuit with power tube. The maximum voltage has been limited to 135, since for all practical purposes in the average home the speaker volume of a 171 or 171-A Radiotron, when used with a plate voltage of 135, will give the same satisfactory results as when the maximum allowable potential of 180 is applied. The intended retail price is \$48.—*Radio Retailing*, April, 1928.

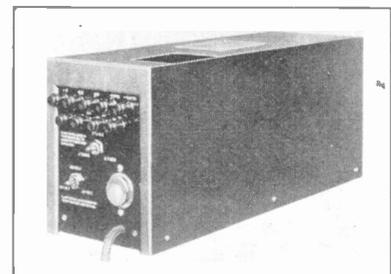
A.C. Receiver

The Crosley Radio Corporation, Cincinnati, Ohio, has named its latest product, a single dial control A.C. receiver, the "Jewelbox." It is self-contained, complete shielded and uses the Hazeltine neutrodyne balanced circuit. 180 volts are supplied to the power '71 tube, giving, it is claimed, pure and undistorted volume. The case is satin brown, touched with gold, and has an illuminated dial. Intended retail price, \$95.—*Radio Retailing*, April, 1928.



ABC Power Supply Unit

A completely dry ABC power supply unit is being made by F. A. D. Andrea, Inc., Long Island City, N. Y. For the plate voltage a single '80 rectifier tube is used. For C voltage a special arrangement has been designed to furnish the proper C voltage in relation to plate voltage, irrespective of normal line fluctuations. For the filament of A supply, a bi-metallic rectifier which contains no acids, liquids, semi-liquids or tubes is used, and the entire unit is one which requires no attention and consumes current from the line, only when the set is actually in operation. There are four models of the power supply, two in 60 cycle and two in 25 cycle. Two of the models are for use solely with the six and seven tube sets and the other two designated as Senior, are especially designed for the Fada 8 but can be used with the other sets also. The intended retail prices for the various models are: 66-Q, 60 cycle and 62-R, 25 cycle, ABC six volt tube supply for use with six or seven tube sets, \$70; 86-V, 60 cycle and 82-W, 25 cycle, ABC super six volt tube supply for use with eight tube sets but which can also be used with six or seven tube sets, \$80. A rectifier tube is not shipped with the unit and is not included in the above prices.—*Radio Retailing*, April, 1928.

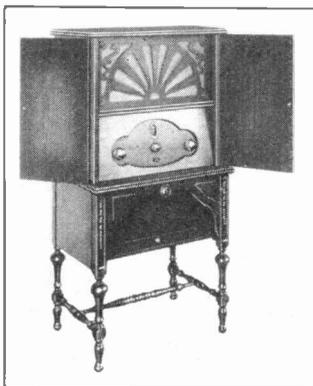


Wave Trap

A wave trap made of moulded Bakelite and designed to eliminate, or reduce to a minimum, interference, is being made by the Powertone Electric Company, 220 Fulton Street, New York City. It is claimed that this instrument increases the selectivity of a receiver and can separate distant as well as local stations operating on the same wave length.—*Radio Retailing*, April, 1928.

Seven-Tube A.C. Receiver

Two new A.C. receivers are now being made by the All-American Radio Corporation, 4201 Belmont Avenue, Chicago, Ill. Model 70, illustrated, uses seven A.C. tubes, operates direct from the house current, and has the one-dial control. The console style cabinet is finished in high-lighted walnut and stands 50 in. high, 25 in. wide and 16 in. deep. In the upper compartment is housed a full-tone Peerless speaker. The intended retail price, complete, is \$264. Model 98, is all-electric, using six A.C. tubes, and operates direct from the light socket. The console cabinet is made of selected burl walnut and measures 48 in. high, 28 in. wide and 18 in. deep. It also encloses the Peerless speaker. Richly colored floral decorations together with hardware of antique brass add to the appearance of the lower compartment panel. The intended retail price is \$196, complete.—*Radio Retailing*, April, 1928.



By-Pass and Filter Condensers

The Acme Wire Company, New Haven, Connecticut, maker of Celatsite Wire and Parvot Condensers announces a complete line of wound by-pass and filter condensers to meet every requirement of modern radio practice, including complete groupings of filter condensers in metal housings with lead-in terminals designed for the more important AC and DC power supply units such as Samson, Thordarson, Hi-Q, Victoreen, Silver-Marshall and Amertran. Acme Parvot By-Pass Condensers are now available in all standard capacities and voltage ratings, while the Parvot Filter types are made in standard MFD capacities and in ratings of 200, 400, 600 and 800, 1,000 and 1,500 volts.—*Radio Retailing*, April, 1928.



Correction

On page 72 of the January 1928 issue of *Radio Retailing* Type "A," artistic cabinet Cone Speaker, made by the United States Electric Corporation, WorkRite Division, 1812 East 30th Street, Cleveland, Ohio, was erroneously listed at \$23. The list price is \$32.—*Radio Retailing*, April, 1928.

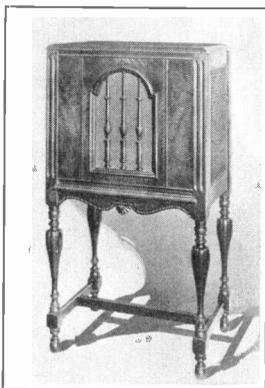


Larger Power Tube

The "Ceco" '50, which is capable of delivering more than three times as much undistorted energy as the '10, is being made by the C. E. Manufacturing Company, 702 Eddy Street, Providence, R. I. The plate voltage recommended ranges from a minimum of 250 to 450 volts, with a negative bias of 45 volts when the plate voltage is 250 and a negative bias of 84 volts when the plate voltage is 450. The voltage amplification factor is 3.8. The filament requires 7.5 volts, 1.25 amperes. The base, etc., of the '50 is of the same size as the '10 although it may ultimately be furnished with a larger size bulb. The oxide coated filament has great mechanical strength and a long operating life. The plate of this tube is tall and narrow and has a slightly blackened color. When used in a transmitting circuit it is rated at 25 watts as against 7½ watts of the '10. As a power amplifier the maximum undistorted output is 4,650 milliwatts against 1,540 milliwatts for the '10.—*Radio Retailing*, April, 1928.

Super-Power Speaker

A floor model cabinet speaker employing the new super-power amplifier Radiotron 250 and two alternating current rectifier Radiotrons 281 is announced by the Radio Corporation of



America, 233 Broadway, New York City. Besides utilizing recent developments in power amplifier and A.C. rectifier tubes, the new unit, which will be known as the de luxe speaker 105, is based, according to the manufacturer, on the same tried, tested and perfected principles of radio acoustics as speaker 104, but with still greater power, depth and tonal beauty. The acoustic response is superior to that of the 104. With ample rectified and filtered energy, together with the latest super-power Radiotron, the amplifier of speaker 105 will handle three times the load of the 104, thus reducing to an absolute minimum the possibility of overloading, even on the loudest band or orchestra selections.

A new type of cone is employed. It is provided with corrugations and rendered moisture-proof, so as to eliminate "paper rattles" even at maximum power, as well as distortion due to climatic conditions.

In addition to supplying its own power requirements, it furnishes B voltages up to 90 volts, as well as C potential, for the radio receiver with which it is employed. The speaker operates only on 110-volt, 50-60 cycle alternating current. The wattage consumption is approximately 140 watts. A "high-low" switch is provided to take care of line-voltage variation between the limits of 105 and 125 volts.

The mechanism is housed in an attractive two toned walnut cabinet measuring 41½ in. high, 23½ in. wide and 16½ in. deep. The list price is \$350.—*Radio Retailing*, April, 1928.

Seven Tube A.C. Receiver

A new model A. C. receiver is now being made by the Atwater Kent Manufacturing Company, Philadelphia, Pa. This set known as model 38, has seven tubes and is designed for use with 110-115 volt, 60 cycle current. It uses five '26 type tubes, one '27 type tube, one '71 type tube and one '80 type tube. It is self-contained and the case has the same finish as the model 37, but is slightly larger in size.—*Radio Retailing*, April, 1928.



A-Current from 32-Volt Farm System

The "King Cole" resistance unit, made by the Anylite Electric Company, Fort Wayne, Ind., fills the need for a means to connect the radio direct to the lighting circuit of 32-volt farm lighting systems. By doing away with the A-battery, this resistance unit brings a set up-to-date. It is made to screw into the light socket and furnish the current for the A-circuit, and comes in sizes suitable for four, five or six tube sets.—*Radio Retailing*, April, 1928.

Set Tester for A.C. or D.C. Receivers

The Weston Model 537 A.C.—D.C. radio set tester, made by the Weston Electrical Instrument Corporation, Newark, N. J., is a complete outfit, most ingeniously designed and fully adaptable to the testing requirements of every set made, whether operated by direct current from batteries or battery substitutes, or by alternating current from socket power.

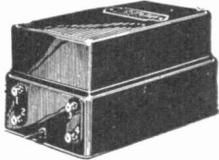
It will measure the various currents and voltages employed anywhere in the set, including those at the tube sockets. All tests can be made by using the regular voltages normally supplied to the set by its batteries or socket power without the necessity of changing connections. Nor is any auxiliary power required.

The set is provided with two instruments—an A.C. voltmeter and a D.C. volt-milliammeter. A system of switches and binding posts provides for automatically connecting the instruments to the circuits being tested. The A.C. voltmeter has three ranges—150/8/4 volts—the lower ranges being required for measuring the filament voltages of tubes, and the highest range is provided for measuring the line voltage. The D.C. volt-milliammeter has four voltage ranges—600, 300, 60 and 8 volts and two current ranges—150 and 30 milliamperes. All voltage ranges have a resistance of 1,000 ohms per volt. The set is furnished with the necessary socket adaptors and a complete instruction book.—*Radio Retailing*, April, 1928.



Automatic Power Control

The "full automatic power control," No. 440, put out by the Yaxley Manufacturing Company, 9 So. Clinton Street, Chicago, Ill., is designed to perform a double purpose. First, it controls the switching of either or both the B-power unit and charger, when the filament of the set is turned on or off. When the set is turned on, the B-power unit is cut in and the charger cut out. The reverse is true when the set is turned off. Second, when the battery is fully charged, the instrument automatically cuts out the charger, thus preventing the battery from being overcharged. The power control consists of two relays, one low wound to control the switching of the B-power unit and charger; the other high wound to cut out the charger. It is contained in a compact case, complete with cord and attachment plug, and instructions for connecting. The intended retail price is \$7.50.—*Radio Retailing*, April, 1928.



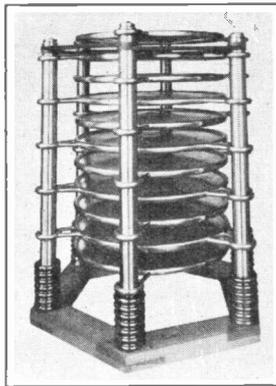
A.C. Harness

The Carter Radio Company, 300 South Racine Avenue, Chicago, Ill., is placing on the market A.C. adapter harnesses for converting battery operated sets to A.C. tube operation designed to be used with practically any type of receiving set, and also the various types of transformer equipment. Each harness includes all the adapters necessary, twisted cabling and the proper resistances for C-bias, together with a hum adjuster. This equipment is made to be used with sets using from five to seven tubes in various combinations both with and without a power tube in the last audio stage. An auxiliary volume control is also furnished at a retail price of \$2 if desired. The complete harness equipment varies in price between \$10.75 and \$17.00, depending upon the style. For set builders who wish to make their own harness individual A.C. tube adapters complete with 20 in. of filament or heater wire are furnished as follows: for the '26 type of tube 90c. each, and for the '27 type \$1.10 each.—*Radio Retailing*, April, 1928.



Power Supply Units

The Acme Apparatus Corporation, 37 Osborne Street, Cambridge, Mass., is making three types of A.B.C.-power supply units. They are the R-280 (illustrated), the R-BH and the A-BH. The units are the same size as the standard Acme E-4, 8 1/2 in. x 3 1/2 in. x 7 1/2 in., and are very compact. The terminals are plainly marked for the various voltages and conveniently located on the top of the unit. The insulated openings are oversized to permit the entrance of as many wires as required. Model R-280 uses an '80 rectifier tube, the R-BH a Raytheon BH and the A-BH an '80 or Raytheon BH tube. Price \$35.—*Radio Retailing*, April, 1928.



Transmitting Condenser

The illustrated transmitting condenser which measures approximately 42 in. high and 30 in. in diam. is a product of the Allen D. Cardwell Manufacturing Corporation, 81 Prospect Street, Brooklyn, New York. It weighs around 375 lb. and will stand the pressure of voltages up to 70,000. The rounded edges of the plates greatly reduce losses from corona effects. The metal throughout is highly polished brass. The approximate price is \$450.—*Radio Retailing*, April, 1928.

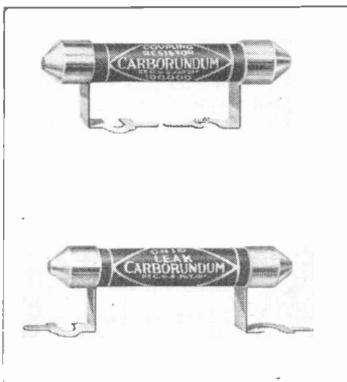
Grid Suppressors

The almost universal adoption by set constructors and manufacturers of Grid Suppressors to prevent oscillation in the high frequency stages of radio receivers, has led to a considerable amount of grief in some cases due to the use of inductive and capacitive grid suppressing units. In this connection, the International Resistance Company, Philadelphia, Pa., manufacturers of Durham resistors, have developed low range resistance units of the values of from 250 ohms to 3,000 ohms which are not of the wire wound type but of the metallized filament type, consequently, entirely free from any inductive or capacitive effects.—*Radio Retailing*, April, 1928.



Carborundum Resistors

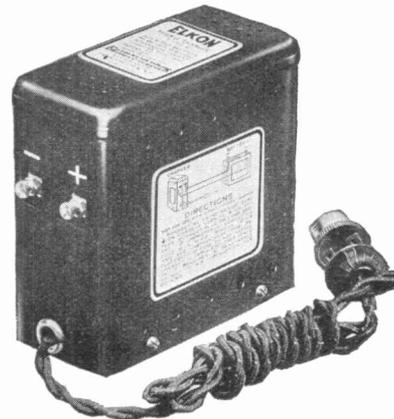
Two Carborundum resistors have recently been placed on the market by the Carborundum Company, Niagara Falls, N. Y. They differ from ordinary resistors in that they are not made with a thin metallic film sprayed between the contacts on an insulating base, but are made of a rod of solid unbreakable Carborundum, a product of the electric furnace. They are said to be noiseless and do not disintegrate with use or time, are made in standard sizes to fit all standard clips or fixtures. Retail prices are: plain end or with holder, values 2,500 and 5,000 ohms, \$1; plain end or with holder, values 12,000, 25,000, 50,000, 75,000 and 100,000 ohms, 75c.—*Radio Retailing*, April, 1928.



Tapering Charger

The Elkon Works, Weehawken, N. J., have just announced a new type of trickle charger, which is called "The Elkon Tapering Charger." The new charger works in much the same way as the usual trickle charger except that the charging rate is automatically increased or decreased according to the condition of the storage battery.

The rectifying unit is the patented solid dry Elkon unit which supplies a charging rate of 1 ampere when the battery is empty. Another feature is that instead of employing the usual glass tube fuse which is so difficult to replace, they use a small piece of 2 ampere fuse wire which is obtainable anywhere. The directions and guarantee are printed on the cover itself so that there is no danger of them being lost. The list price is \$10.—*Radio Retailing*, April, 1928.



Electrolytic Condenser

The Amrad Corporation, Medford Hills, Mass., is making the "Merston" condensers in various sizes and combinations as follows:

S-5, S-8, S-10, S-25, S-50, S-90.
D-8, D-10, D-25.
T-8, T-10, T-2;25 and 1;10, T-1;25 and 2;10.
Q-8, Q-10, Q-2;20-25, 2;10.

In the foregoing, "S" denotes single anode, "D" denotes double anode, "T" indicates triple anode, and "Q" quadruple anode condensers. The figures after the letters denote the capacity per anode and where a semicolon occurs this means number of units. The prices range from \$3.80 to \$9.60. Overall dimensions are 1 1/4 in. in diam., and 5 1/2 in. high, on the S-10 type and the S-25. The S-50 is 2 in. in diam., and 5 1/2 in. high, and the T and Q types are 3 in. in diam. and 5 1/2 in. high.—*Radio Retailing*, April, 1928.

A.C. Receivers

The Slagle Radio Company, Fort Wayne, Ind., a division of the U. S. Electric Corporation, is making the following A.C. console model receivers, each using the "Technidyne" circuit, a single dial illuminated control and a special volume control. Model 9-B, has nine tubes, a Newcombe-Hawley console type reproducer with a Baldwin unit, and is enclosed in a walnut cabinet, the overall dimensions of which are, 30 1/2 in. by 18 1/2 in. by 4 1/2 in. high. The intended retail price complete is \$415.50.

Model 10-B, has ten tubes, a Newcombe-Hawley reproducer and comes in a walnut cabinet, price, complete, \$464. Model 10-C, has ten tubes, a Newcombe-Hawley reproducer, and is enclosed in a burl walnut console, price, complete, \$509. Model 10-CS, has ten tubes and a dynamic power speaker built especially for A.C. receivers, and is enclosed in a burl walnut console. It is also equipped with connection for electric phonograph pick-up. Price, complete, \$559. And, model DR, has ten tubes, a dynamic power speaker, and is also equipped with connection for electric phonograph pick-up. The cabinet is made of solid walnut and the price complete is \$634.—*Radio Retailing*, April, 1928.

What the Trade is Talking About

Radio Commissioners Confirmed

With the confirmation by the Senate of Orestes H. Caldwell of New York, Sam Pickard of Kansas, Harold A. Lafount of Utah, and Ira E. Robinson of West Virginia, the Federal Radio Commission now has, for the first time in months, a complete working organization. Judge Sykes of Mississippi had been previously confirmed.

The Commission will serve under the new law enacted by Congress, which extended the life of the Commission to February 23, 1929. The Commission was officially confirmed by the Senate on March 30.

RCA-Victor Merger Reported

Preparations for a new combination, that of the Radio Corporation of America, New York City, and the Victor Talking Machine Company, Camden, N. J., have virtually been completed according to recent reports. The two companies have been closely affiliated for some time. No information has been made public on the terms of the consolidation, but the transaction, if carried out, will bring together properties with combined assets of about \$125,000,000. Prominent artists under contract with the Victor Company may be permitted to broadcast if the consolidation takes place.

1927 Set Sales to be Tabulated

Tabulation of the number of radio sets sold in the United States last year will be a new feature of the next quarterly survey of stocks in the hands of radio dealers and jobbers to be conducted April 1, by the Electrical Division, Department of Commerce, in co-operation with the Radio Division of the National Electrical Manufacturers' Association.

Questionnaires are being mailed out to approximately 33,000 radio dealers and 1,000 jobbers. In addition to stocks on hand, the information requested will indicate the number of battery-operated and A.C. radio sets sold by each dealer and jobber during the year 1927.

Show Staged to Counteract Slump Proves Successful

In an effort to counteract the seasonal slump which dealers meet as the month of March approaches, thirty-six dealers of Dayton, Ohio, representing department, furniture, radio and electrical stores, recently staged a most successful three-day consumer radio show at a local hotel.

The arrangements for this show were different from those of the usual run of shows and attracted considerable attention. A leading hotel agreed to rent to each dealer participating a sample room for the sum of \$20 for the three days, with an additional charge of \$4 for the aerial installation. The furniture was removed and the rooms attractively decorated. The question of preferred location was decided by pooling. As each dealer had a separate room with an individual aerial, it was possi-

ble for him to demonstrate a set without conflicting with his neighbor and to secure privacy for talking over the plan of payment and other details. Approximately 20,000 people attended the exhibits, showing a distinct and lively interest by the public in an affair of this type.

The show was put on by the Dayton Radio Dealers' Association. This association has been in existence two years and is very active in promoting interest in radio.

Ira E. Robinson Named as New Radio Commissioner

Ira E. Robinson of Grafton, W. Va., was nominated on March 29 by President Coolidge as a member of the Federal Radio Commission. Mr. Robinson has been named simply as a "member" to represent the Second Zone and does not fill the position of chairman left vacant by Admiral Bullard's death.

Judge Robinson is a lawyer and at present is doing special work for the United States Attorney General.

He was born in 1869, studied law at the University of Virginia and was admitted to the bar in 1891. He was a member of the Senate of West Virginia and was later appointed Chief Justice of the Court of Appeals of that State, but resigned from the bench to become Republican candidate for Governor in 1916.

THE NATIONAL BATTERY MANUFACTURERS' ASSOCIATION held its semi-annual convention at the Edgewater Beach Hotel, Chicago, on February 23 and 24. D. H. Kelly of the USL Battery Corporation and president of the Association, opened the convention with a short talk and the balance of that day and the next morning were devoted to speeches and discussions on technical merchandising and advertising matters. That afternoon the entire convention had luncheon at the plant of the Richardson Company, followed by a trip of inspection through the building. The Chicago members entertained the delegates on both nights of the convention, which concluded with a banquet at the Edgewater Beach Hotel.

ROBERT W. BENNETT has recently been appointed general sales manager of the A. C. Dayton Company, Dayton, Ohio, where he will be in direct charge of sales, advertising and credits, and, together with Conrad Strassner, will generally supervise the business. Mr. Bennett formerly conducted the R. W. Bennett Company, St. Louis, manufacturers' agents. He is the retiring president of the St. Louis Radio Trades Association and a past director of the Federated Radio Trade Association.

JOHN V. L. HOGAN recently granted a license to the Colonial Radio Corporation, Long Island City, N. Y., under the Hogan single-control tuning patent. Other companies recently licensed include: Brandes Products Corporation, manufacturers for Federal-Brandes, Inc., Newark, N. J.; Wireless Radio Corporation, Brooklyn, N. Y.; and the Premier Electric Corporation, Chicago. More than 40 other radio manufacturers have been licensed under this patent.

President Signs Amendment to Radio Law of 1927

The "equal allocation" amendment to the Radio Law of 1927, having been passed by the House and Senate, received the signature of President Coolidge on March 26 and was incorporated into the Law.

The amendment also provides that no broadcasting licenses shall be issued for a period longer than ninety days, and extends the life of the Federal Radio Commission as an independent body for a period of one year.

The "equal allocation" clause provides that each of the five radio zones into which the United States is divided, shall be assigned equal power and an equal number of wavelengths. The clause, in its entirety, follows:

"It is hereby declared that the people of all the zones established by Section 2 of this act are entitled to equality of radio broadcasting service, both of transmission and reception, and in order to provide said equality the licensing authority shall as nearly as possible make and maintain an equal allocation of broadcasting licenses, of bands, of frequencies or wavelengths, of periods of time for operation, and of station power, to each of said zones when and in so far as there are applications therefore; and shall make a fair and equitable allocation of licenses, wavelengths and time for operation and station power to each of the states, District of Columbia, and the territories and possessions of the United States within each zone, according to population.

The licensing authority shall carry into effect the equality of broadcasting service hereinbefore directed, whenever necessary or proper, by granting or refusing licenses or renewals of licenses, by changing or re-assigning wavelengths, by changing periods of time for operation and by increasing or decreasing station power when applications are made for licenses or renewals of licenses; provided that if and when there is a lack of applications from any zone for the proportionate share of licenses, wavelengths, time of operation, or station power to which such zone is entitled, the licensing authority may issue licenses for the balance of the proportion not applied for from any zone to applicants from other zones for a temporary period of 90 days each, and it shall be specifically designated that said apportionment is only for said temporary period. That allocation shall be charged to the state, district, territory or possession where the studio of the station is located and not where the transmitter is located."

THE GRISBY-GRUNOW COMPANY, Chicago, maker of the Majestic line, recently took a long-term lease on the plant of the Yellow Truck and Coach Manufacturing Company, Chicago. A short time ago, this company completed an addition to its original plant at 4540 Armitage Avenue, and this property will be known as plants Nos. 1 and 2, while the Yellow Truck property will be known as plants Nos. 3, 4, 5 and 6. The total floor space now available is nearly one-half million feet.

THE DONGAN ELECTRIC MANUFACTURING COMPANY, Detroit, Mich., has recently purchased the Electrical Specialties Company, Inc., manufacturer of fixed condensers. It is planned to expand the engineering department and laboratories of the Dongan company and space is being added to the plant to provide for the installation of the new machinery and equipment. C. Ringwald, former president of the Electrical Specialties Company, will join the Dongan ranks as sales engineer, according to an announcement by the Dongan Company.

Postal Telegraph and I. T. & T. May Combine

A \$300,000,000 merger which would provide a telegraph system covering the entire western hemisphere is under negotiation. The plans call for the linking of the Postal Telegraph-Commercial Cable Company and the International Telephone and Telegraph Company, thus creating a network of wires connecting Canada, the United States, Mexico, Cuba, Central America and so southward to Argentina.

The Postal Telegraph installing a line of radio stations across the Pacific along the route of the Commercial Pacific cable. When the merger negotiations with the I. T. & T. are completed they will be in a position to establish radio service with South America.

R.C.A. License Transfer

The William J. Murdock Company, 347 Washington Avenue, Chelsea, Mass., has transferred its license granted by the Radio Corporation of America to the Philadelphia Storage Battery Company of Philadelphia.

MORSE SALISBURY, the newly appointed chief of Radio Service for the U. S. Department of Agriculture, states that a recent survey by this bureau revealed that 2,358 out of 3,896 representative farmers preferred "talk" to "music" over their radios. The first of a series of talks on co-operative marketing, prepared by specialists of the Division of Co-operative Marketing and the Division of Economic Information of the Bureau of Agricultural Economics, was broadcast February 22, over 50 stations throughout the country. These talks will be broadcast for a period of ten weeks as the regular farm economics section of the U. S. Radio Farm School programs.

THE TEXAS RADIO SPECIAL, a special train to carry delegates to the Chicago Trade Show and Convention next June is to be chartered by the southwestern radio dealers. Delegates will meet at some north Texas point and it is expected that groups from representative southwestern cities will gather at the appointed place to make the trip together.

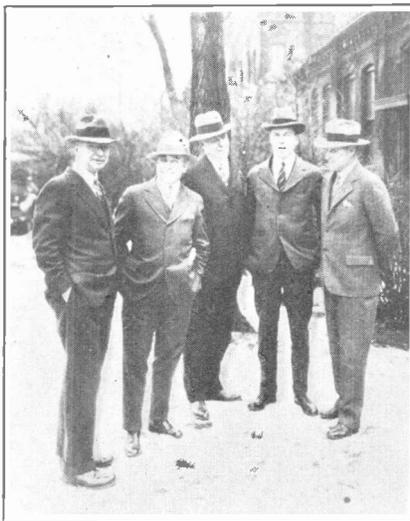
THE AMRAD CORPORATION, Medford Hillside, Mass., has appointed James Nolan as sales engineer of its Mershon division. Mr. Nolan was formerly manager of the radio department of the Hub Cycle and Auto Supply Company, Boston. In his new capacity he will work with manufacturers and distributors in the east.

THE CABLE SUPPLY COMPANY, INC., New York City, has recently added H. Bobker to its staff. Mr. Bobker was formerly connected with the Supertron Manufacturing Company, Hoboken, N. J.

THE HARTZELL SALES COMPANY has moved its principal office from New York to Chicago, and will be located hereafter at 508 South Dearborn Street. The Hartzell company has sales representatives in twenty-one cities throughout the U. S.

GEORGE W. WACKER, formerly of the sales department of Pal Radio, Inc., Jersey City, N. J., is no longer connected with that company, according to an announcement by the Pal Company.

CHAMPION RADIO WORKS, INC., is a new corporation recently formed by the manufacturer of Champion tubes. The company has established headquarters at Danvers, Mass.



Pilgrimage a la Pullman

Just as all good Mohammedans eventually visit the shrine in Mecca, so all good radio dealers eventually visit a radio factory. And that is just what the McCoy's of McCoy's, Inc., Hartford, Conn., did. They increased their Stromberg-Carlson business tenfold last year and felt a little relaxation was in order. Left to right on the grounds of the Stromberg-Carlson plant at Rochester: G. A. Scoville, vice-president and sales manager; Pilgrims A. P. McCoy and Frank McCoy; D. W. Brown, in charge of the Rochester Division sales, and J. S. Gibson, radio sales manager of Stromberg-Carlson.

THE ADROIT TOOL COMPANY, New York City, has merged with the Adrola Corporation and will hereafter be known as the Adrola Corporation with headquarters at Port Jefferson, N. Y. Ernest and Joseph Young, formerly of the Adroit Company, will be in charge.

INTERNATIONALE RADIOTECHNIK, 42 Brandenburgische Strasse, Berlin-Wilmersdorf, Germany, in its issue dated 1st Quarter, 1928, has listed all radio publications in every country of the world, with the name and address of the publisher.

Automatic Control for Radio Sets

Eliminating the dials on a radio receiver and tuning simply by pushing buttons or pressing levers, with the desired station indicated on the control, is the invention of Harry N. Marvin of Rye, N. Y. Above each button or lever is the name of the station that particular control is tuned to and should say, WEAF be desired, the button having the name of that station above it is pushed. This at once gives the station. However, if the operator does not want to use the automatic control and desires to tune the receiver by hand there is a button which releases the mechanism and gives the operator the same control as on ordinary single dial receivers.

The Zenith Radio Corporation of Chicago announces that it owns and controls all of the patents covering this system of tuning. In addition to Marvin's patents they have also purchased the automatic radio patent held by A. J. Vasselli. Licenses will be granted to other companies desiring to use these patents.

THE GENERAL TRANSFORMER CORPORATION, a newly formed company, has established headquarters at 900 West Jackson Boulevard, Chicago, where it will manufacture transformers and chokes and power packs for power supply units. Nathan Goldman, formerly general manager of the Transformer Corporation of America, Chicago, is president and treasurer of the new company and Benjamin C. Goldman is secretary. Kendall Clough, director of the Research Laboratories, Chicago, will act as consulting engineer.

HERBERT E. METCALF recently resigned as chief engineer of the Magnavox Company, Oakland, Cal., to become president and chief engineer of the Wonderlite Company of America, Inc., makers of luminous tube signs.

THE POLYMET MANUFACTURING CORPORATION, New York City, has taken over another floor in their building at 599 Broadway.

Luncheon Rally of Talking Machine and Radio Men, Inc.



The executives and several hundred metropolitan dealers of the Freed-Eisemann Radio Corporation, Brooklyn, N. Y., were the guests of the Talking Machine and Radio Men, Inc., at a luncheon conference recently held at the Cafe Boulevard, New York City. Mr. Joseph Freed demonstrated for the first time in public some of the new additions to the Freed-Eisemann line. Irwin Kurtz, president of the association, introduced the speakers, who included Alex Eisemann, chairman of the board; Joseph D. R. Freed, president; Arthur Freed, vice-president, and Arthur Trostler, assistant to the chairman.

Mail Order House to Operate Chain of Retail Stores

Another merchandising development, linking mail order business with chain store selling, is forecast in the plans of Montgomery, Ward and Company, Chicago, one of the oldest mail order houses in the United States, to locate a retail store in each of the more than 1,500 towns having a population of 5,000 or more. The company now has fifty of these in operation and expects to add one hundred and fifty more by the end of the year. A "test" store was opened in 1926, at Marysville, Kansas, a town of 4,000 population. It catered to more than 16,000 customers in the first two weeks.

Each Montgomery Ward chain store will carry radio equipment as well as furniture, stoves and ranges, sporting goods, house furnishings, tires, and electrical appliances.

Fada Branch Managers Meet

F. A. D. Andrea, Inc., Long Island City, N. Y., recently held a general sales convention at the plant for the purpose of discussing the merchandising of the Fada line. The meeting was attended by branch managers and officials from Canada, Chicago and San Francisco. Mr. Andrea welcomed the visitors at the factory, following which the business sessions were held. A dinner at the Hotel Astor, New York City, was given in the evening. The guests included: Homer J. Zopf, Toronto, Canada; L. R. Hanlon, San Francisco; W. J. Roche, Chicago, and G. E. King, Kansas City, Mo.

PETER L. JENSEN, formerly chief engineer of the Magnavox Company, has organized the Jensen Radio Manufacturing Company, 35 East Wacker Drive, Chicago, for the manufacture of the Jensen dynamic cone speaker. Mr. Jensen was co-inventor of the Magnavox speaker and also helped develop the "public address system" which is used by the U. S. Government. The Jensen Company has arranged to market its products through the Camfield Radio Manufacturing Company, of the same address.

THE KODEL RADIO CORPORATION, Cincinnati, Ohio, manufacturer of Kuprox, has purchased from the Liebel-Flarsheim Company, Cincinnati, the patent covering this product. Kuprox is a metallic element which permits electric current to pass only in one direction.

FRANK A. HINNERS, formerly president of the King-Hinners Radio Company, Buffalo, N. Y., has organized the firm of F. A. Hinners & Company, Inc., 55 West 42nd Street, New York City, to manufacture and market a line of radio speakers.

THE CROSLLEY RADIO CORPORATION, Cincinnati, Ohio, has recently appointed James E. Hahn as director. Major Hahn is also president of the DeForest Crosley Corporation of Canada, and president of the Amrad Corporation, Boston.

WILLARD ELECTRIC CO., Milwaukee, Wis., has been formed for the purpose of manufacturing and selling radios, accessories and supplies. Members of the company are James E. Willard, Elmer K. Thiermach and Edgar A. Bark.



"Now We're in the Air . . ."

Here you see Gilman Anderson, (left), sales manager for the Bremer-Tully Manufacturing Company, Chicago, wringing the arm of Major Edwin H. Cooper, (right) New England representative for that company, just as he landed in Chicago for a visit to the factory. Major Cooper escorted Mrs. Evangeline Lindbergh, Lindy's mother, from Boston to Detroit. Nowadays, you have to be "in" the air as well as "on" the air to keep pace with these radio fellers.

TEMPLE, INC., recently held a housewarming in its new three-story plant at 1925 S. Western Avenue, Chicago, attended by six hundred people. Mr. Marchev, president, and Fred Temple, vice-president of the concern, were hosts at the party, the latter conducting the guests on a tour of inspection. The housewarming was also a good-bye party to Mr. and Mrs. Marchev, who were leaving on a two months' tour of Europe and England.

THE RADIO APPLIANCE CORPORATION, 30 Taylor Street, Springfield, Mass., has been formed for the manufacture of paper-wound condensers. N. A. Glaskowsky, formerly associated with the American Bosch Magneto Corporation, Springfield, Mass., is the president and general manager.

MAX L. HAAS has opened offices at 942 Prospect Avenue, Cleveland, Ohio, where he will act as manufacturers' agent, covering the state of Ohio. Mr. Haas was formerly president and general sales manager of the Haas Electric Sales Company, Cleveland jobbers.

SHERMAN, CLAY & COMPANY, Seattle, Wash., who operate forty retail stores on the Pacific Coast have been franchised by the Atwater Kent Manufacturing Company, Philadelphia, and Federal-Brandes, Inc., Newark, and will carry both lines in each store in their chain.

C. H. SMITH, president and general manager of the Westinghouse Union Battery Company, Pittsburgh, Pa., died suddenly on February 22, as the result of a fall. Mr. Smith had been identified with the Westinghouse Union Battery Company for over twenty-five years.

Southeastern A-K Dealers Hold First Monthly Banquet

Atwater Kent dealers in the southeastern section recently held their first regular monthly banquet at the Hermitage Hotel, Nashville, Tenn. The banquet was attended one hundred per cent strong by Nashville dealers. The object of the meeting was to formulate a merchandising plan for the coming season.

John F. McCoy, territorial manager for the southeastern states, and E. L. Hollingsworth, field manager, gave interesting talks, as well as J. G. Green and H. L. Weiss, factory representatives, who spoke on the correct servicing of radio sets. W. W. Gambill, general manager of the Braid Electric Company, Atwater Kent distributors, presided and gave an instructive talk on the financing of radio sales.

THE UNITED RADIO CORPORATION, Buffalo, N. Y., has recently made several additions to its staff. F. W. Piper, formerly sales engineer of the Amplion Corporation of America, has been appointed sales manager in charge of the western district, with headquarters in Chicago. H. C. Goodrich, formerly field representative for the King Manufacturing Corporation, will be district representative in the middle west, covering Michigan, Ohio, Indiana and Iowa, while Milton C. Bickford will hold the same position, with the south Atlantic states as his territory.

THE TALKING MACHINE AND RADIO MEN, INC., are planning their annual banquet to be held at the Hotel Commodore, New York City, on the evening of Monday, April 23. An elaborate entertainment is being prepared and tickets may be secured from E. G. Brown, 142 Main Street, Hackensack, N. J.

THE MAGNAVOX COMPANY, Oakland, Calif., has recently licensed the following companies under its electro-dynamic speaker patents: The Electrical Research Laboratories, Chicago; Newcombe-Hawley, Inc., St. Charles, Ill., and the Jensen Radio Manufacturing Company, Oakland, Calif.

THE SPENCER RADIO LABORATORIES, INC., Akron, Ohio, have recently been organized to manufacture and distribute radio receiving sets and accessories. The company plans to make a new set to be named later. The incorporators are: P. J. Spencer, Charles M. Spencer and Irwin D. Allen.

THE RADIO MANUFACTURERS' ASSOCIATION, Chicago, has recently appointed M. Frank Burns, of E. T. Cunningham, Inc., New York City, and John C. Tully, of the Bremer-Tully Manufacturing Company, Chicago, as directors.

FREDERICK PAUL UPTON, who has been connected with the Splitdorf Electric Company of Newark, N. J., for the past fifteen years, has resigned as vice-president of that company, to become vice-president of the Apollo Magneto Corporation, Kingston, N. Y.

THE GENERAL ELECTRIC COMPANY, Schenectady, N. Y., has recently appointed W. R. G. Baker as managing engineer of its radio department. Mr. Baker succeeds Adam Stein, Jr., who has joined the executive staff of Acoustics Products Company.

Waldo T. Tupper to Manage Los Angeles Show Again

Striving to break once more all western show records from the point of attendance, the committee is hard at work completing arrangements for the Sixth Annual National Radio Exposition to be held in the Ambassador Auditorium, Los Angeles, the week of September 2 to 8. It is stated that seventy-nine per cent of the space has already been contracted for and a tendency to increase space is being shown by former exhibitors. To take care of this demand, the Auditorium will be enlarged considerably.

C. H. Mansfield has been appointed as general executive chairman, and Waldo T. Tupper, who has been managing director for the past three years, will again fill that position. A. G. Farquharson, secretary of the Radio Trade Association of Southern California will act as executive secretary. The committees are as follows: G. H. Nicholson, ticket sales; F. W. Falck, hosts and receptions; C. C. Huse, floor; Carl A. Stone, booth sales; H. E. Sherman, Jr., broadcasting and public address systems; Mark Smith, pre-view; L. E. Taufenback, advertising, and John W. Boothe, publicity.

THE ATWATER KENT MANUFACTURING COMPANY, Philadelphia, together with its West Coast distributors—Ernest Ingold, Inc., San Francisco, the Sunset Electric Company, Portland, Oregon, and Seattle, Wash., and Ray Thomas, Inc., Los Angeles, recently put on the air over the Pacific Coast network the first of a series of broadcasts which they are sponsoring. The programs will continue every Sunday evening.

THE DIAMOND STATE FIBRE COMPANY, Bridgeport, Pa., recently promoted Wallace McCarter to the position of buyer and made Lawrence T. Kratz buyer for the Celeron Company, a division of the Diamond State Company. Both Mr. McCarter and Mr. Kratz have been active in the Purchasing Department for several years. W. A. Knerr, formerly purchasing agent for both companies, is now secretary of the Norris-town branch of the Pennsylvania Manufacturers Association.

THE ROBERT FINDLAY MANUFACTURING COMPANY, INC., Brooklyn, N. Y., manufacturer of metal products, has recently opened a New York City display room at 242 Fifth Avenue, where its new line of console tables will be shown.

CARL J. MAIN, formerly Central States district manager for the Amplion Corporation, has joined the sales force of the Amrad Corporation, Medford Hillside, Mass. Mr. Main will have Ohio, Indiana and Michigan as his territory.

I. H. MITCHELL was recently promoted to the position of assistant to the general manager of the merchandising division of Federal-Brandes, Inc., Newark, N. J. Philip Van Doren Stern has joined the company to fill Mr. Mitchell's former position of advertising manager.

Credit

The leading editorial in the March issue of *Radio Retailing*, entitled, "Concerning Furniture Harmony," was taken from a bulletin issued by the Splitdorf Radio Corporation, Newark, N. J., but credit for which was omitted. The editor takes this means of correcting the omission.

THE JEFFERSON ELECTRIC MANUFACTURING COMPANY, Chicago, and the Chicago Fuse Manufacturing Company, have recently consolidated, the new organization to be known as the Chicago-Jefferson Fuse and Electric Company, with offices at Laflin and 15th Streets, Chicago. The officers of the new company are: President, J. A. Bennan, formerly president of the Jefferson company; vice-president, A. R. Johnson, formerly secretary of the Jefferson company; vice-president, A. E. Tregenza, and treasurer, J. C. Daley.

THE CORTLANDT PANEL ENGRAVING COMPANY, New York City, has moved to larger quarter and is now located at 165 Greenwich Street, where its manufacturing facilities are doubled. The Cortlandt company is exclusive distributor for Hood Florentine panels in New York, New Jersey and Connecticut and has manufacturers' representatives in the middle west and on the Pacific Coast.

THE EKKO COMPANY, 111 West Monroe Street, Chicago, Ill., recently established an office in Milwaukee at 654 East Water Street. Frank Watt, who formerly traveled the Wisconsin territory, is in charge.

PASCH RADIO SUPPLY COMPANY, INC., has opened its third store at 5322 Vliet Street, Wauwatosa, Wis. The Pasch company's other stores are located in Milwaukee.

JOE AND SIMON HOELZ have leased one of the store fronts in the Hotel Bader, Burlington, Wis., and have opened the Badger Radio Shop, where they are handling the Bosch line.

THE GRIGSBY-GRUNOW COMPANY, Chicago, Ill., has added Charles G. Henry to its staff in the position of sales engineer. Mr. Henry was formerly radio sales engineer for the Sonora Phonograph and Radio Company.

ALVIN DODD AND E. M. WEST have recently entered business together as market advisors with offices at 11 West 42nd Street, New York City. Mr. Dodd was formerly Director of the Domestic Distribution Department of the U. S. Chamber of Commerce, while Mr. West served as advisor to that department.

Form Trade Association

The radio merchants of Kalamazoo, Mich., have recently formed a trade association. L. A. Williams has been very active in the organization of this association which already has a large number of members including both dealers and jobbers. The officers are: Ralph Ralston, president; Buster Brown, vice-president, and Percy Barron, secretary and treasurer.

F. A. D. ANDREA, INC., Long Island City, N. Y., has recently appointed H. J. Heindel and A. A. Leonard to its engineering staff. Mr. Heindel, who will specialize on speaker research and development, was formerly research engineer at the Bell Laboratories and has done work on picture transmission, television and carrier telegraph systems. Mr. Leonard will engage in production research work which includes following through with laboratory research, the factory products in the various stages, from raw material to the finished apparatus.

THE GREAT LAKES RADIO CORPORATION, 157 Sixteenth Street, Milwaukee, Wis., has recently opened two new stores, one in the Garfield Theatre Building and the other in the Oriental Theatre Building. The store in the Garfield Theatre Building will be managed by B. F. Bissing, while the other one will be managed by C. E. Schuette. The Great Lakes Corporation is also operating a branch store in the Uptown Theatre Building managed by I. S. Fisher.

CROSLY RADIO CORPORATION, Cincinnati, Ohio, has placed on the market a portable, hand-operated refrigerator called "Icyball." The manufacture of this refrigerator is merely a sideline and will in no way interfere with the radio business.

H. CURTISS ABBOTT, formerly with the Kellogg Switchboard and Supply Company, Chicago, has accepted the position of general sales manager for the Crosley Radio Corporation, Cincinnati.

THE NATIONAL BATTERY MANUFACTURERS' ASSOCIATION is now located in its new headquarters at 11 East 44th Street, New York City.

Radio Shows and Conventions

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

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

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

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

September 17-22: Fifth Radio Worlds' Fair, New Madison Square Garden, New York City.

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

September 17-22: Fourth Annual Southwest National Radio

Exposition, New Coliseum, St. Louis, Mo.

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

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

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

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

October 8-14: Sixth Annual Chicago Radio Show, Coliseum, Chicago, Ill.

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

Average Turnover of Small Dealer Over \$5,000

Small town radio dealers average \$5,200 worth of business a year as compared with about four times that, or \$22,800, by the average dealer in New York City, according to the Electrical Equipment Division, Department of Commerce, who recently conducted a survey of radio equipment stocks in the hands of radio dealers on January 1.

Radio dealers reporting in Philadelphia averaged an annual turnover of \$21,000, in Chicago \$32,200. A group of cities including Boston, Baltimore, Cleveland, Detroit and St. Louis had an average business of \$44,300 a year. Dealers reporting the largest average turnover were in the group consisting of Pittsburgh, Buffalo, Los Angeles and San Francisco; the average for this group of cities was \$56,000.

As to stocks on hand, there are relatively more receiving sets per dealer in the larger cities than in the smaller. Among the dealers reporting, those in Chicago hold the greatest proportion of A.C. sets as compared with battery-operated ones, nearly one for one. Small town dealers show a greater number of storage batteries in stock as compared to battery-operated sets than do dealers in large cities. Their stocks of 45-volt B-batteries in most cases amount to about three per battery set.

THE RACON ELECTRIC COMPANY, INC., 18 Washington Place, New York City, has added Harold R. Fletcher to its staff in the position of general sales manager. Mr. Fletcher was formerly with the Algonquin Electric Company.

THE CONSOLIDATED RADIO CORPORATION, Arborphone Division, Ann Arbor, Mich., recently added Bayard H. Clark and J. W. Jenkins to its staff. Mr. Clark will take charge of the Chicago territory with headquarters at the offices of Sanford Bros., Arborphone National representatives, 30 Walton Place, Chicago, while Mr. Jenkins will work with Arborphone distributors as special sales representative.

THE CARRYOLA COMPANY OF AMERICA, Milwaukee, Wis., has added W. H. Meneilley to its staff in the capacity of service manager. Mr. Meneilley will be in charge of all deliveries, adjustments and other service activities.

THE AMERICAN BOSCH MAGNETO CORPORATION, Springfield, Mass., has recently appointed Frank V. Goodman as director of sales, radio division. Mr. Goodman was formerly with the Sonora Phonograph Company in a similar capacity.

FEDERAL TELEGRAPH COMPANY, Newark, N. J., has received an order for nine Kolster radio compasses to be used on vessels on the Great Lakes. This order is the result of a test given two of the instruments during the past few months. The compasses will be used in connection with four new radio beacons, which automatically send bearings from the shore to the radio compasses on the vessels, recently placed in operation by the U. S. Government, making a total of fifteen beacons now in use on the Great Lakes.

RENFRO WADENSTEIN, one of Seattle's leading furniture stores, recently moved to the old Grote Rankin Building where a radio department is being established under the management of Herbert E. Zobrist and George L. Dickinson.

Jobbers' Statistics Check Dealer Survey

An interesting comparison will be found between the dealers' statistics and the jobbers' statistics which were collected by the Electrical Equipment Division of the Department of Commerce in co-operation with the National Electrical Manufacturers' Association, according to Louis B. F. Raycroft, vice-president in charge of the Radio Division.

"The jobber statistics just released by the department were obtained independently of the dealer survey but on a country-wide basis. A comparison of the two surveys show that the volume of business reported for 1927 by the radio dealers checks within five per cent with the volume reported by the jobbers for the same period when the proper allowance is made for the average dealers discount. This five per cent difference is accounted for in the apparatus which is sold directly by the manufacturer to the dealer. This is indicative of the accuracy of these Department of Commerce statistics which are prepared from reports of 25 per cent of all dealers and 40 per cent of all jobbers in the United States," said Mr. Raycroft.

"A total volume of more than \$500,000,000 retail sales of radio apparatus for 1927 has been calculated by a close study of these statistics. In arriving at this figure it is important to remember that only 8 per cent of the department stores of the country reported," he said.

THE INTERSTATE RADIO SALES COMPANY, Madison, Wis., has recently been incorporated under the name of the Wengel Radio Corporation, to manufacture and sell Wengel radios, power amplifiers and battery eliminators. This concern is also the builder of the new Master Symphony set. The officers of the company are: Arthur M. Wengel, president; Mrs. M. W. Wengel, vice-president; V. E. Gasser, secretary; and Theodore Lewis and George Miller, directors.

THE DAVEN RADIO CORPORATION, Newark, N. J., will hereafter be known as the Daven Corporation, according to a statement from W. H. Frasse, president.

KIRK THOMAS has opened a radio store at 112 West Taylor Street, Kokomo, Ind. He will be assisted by Kenneth Schneidemann who will have charge of the service department.

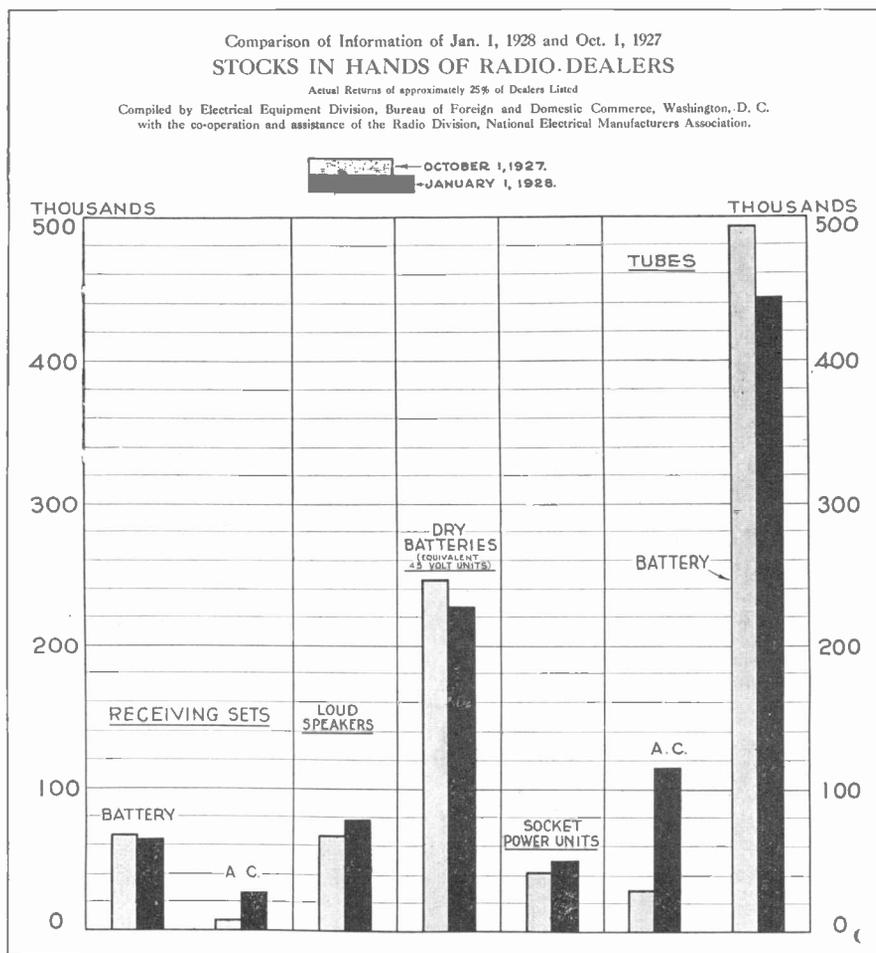
GEORGE W. SPLATY & COMPANY recently opened a radio store in the Hippodrome Building, Terre Haute, Ind., handling Freshman receivers. J. F. Barr is in charge.

THE WILLIAMS PIANO COMPANY, Sioux Falls, S. D., has entered the radio field and will retail Atwater Kent and R.C.A. products.

THE STEWART BATTERY COMPANY, 125 N. Peoria Street, Chicago, Ill., has named L. A. Hoffman as Wisconsin representative. Mr. Hoffman is temporarily located with the Interstate Sales Company, distributor for the line.

THE CROSLY RADIO CORPORATION, Cincinnati, Ohio, has recently promoted Neil Bauer to the position of assistant general sales manager.

M. PHILLIPS; 1351 Fiftieth Street, Kenosha, Wis., recently opened a radio department in his store, stocking the Chieftain and Brunswick radios.



News of Jobbers and Distributors

Radio Wholesalers' Association Officers Meet in Chicago

Organization plans for the Jobbers' Section of the Federated Radio Trade Association, were formulated at a two-day meeting of the Executive Committee in Chicago, recently, and the set-up for the Radio Wholesalers' Association is now complete. The Jobbers' Section was formed during the recent convention of the F. R. T. A. and while it is affiliated with that association, it functions as a separate unit.

The Manufacturers' Relations Committee headed by Harry Alter of the Harry Alter Company, Chicago, reported progress on trade relations and the development of a standard purchase form.

Many membership applications from reputable wholesalers have been received and approved, according to J. F. Connell, chairman of the Membership Committee.

The Executive Committee approved the copy for the booklet, "The Radio Wholesaler Needs Organization," which is now being printed and is available for distribution.

Interest in this organization has not lagged as evidenced by the fact that this meeting was attended 100 per cent by the members of the Executive Committee, which is composed of Thomas White, Wholesale Radio Equipment Company, Buffalo; Geo. Purdy, George C. Beckwith Company, Milwaukee; Martin Wolf, Electric Appliance Company, Chicago; Harry Alter, Harry Alter Company, Chicago; Fred Wiebe, Brown & Hall Supply Company, St. Louis; J. F. Connell, Kruse-Connell Company, Indianapolis; and W. H. Roth, Radio Specialty Company, Milwaukee. Harold J. Wrape, president of the F. R. T. A., was also present.

THE STEINITE RADIO LABORATORIES, INC., Chicago, Ill., have recently appointed H. J. Gorke, Syracuse, N. Y., and the Crescent Electric Supply Company, Dubuque, Iowa, as distributors. H. J. Gorke will cover the entire central New York State territory and the Crescent Electric Supply Company will cover Iowa.

D. W. MAY, INC., radio wholesaler, Newark, N. J., has created a new department to handle its sales and advertising. It will be under the supervision of Walter Ferry, who will have a force of seven road men.



And a Mighty Nimrod Is He

Introducing, informally, G. A. Zano—one on the left—one of the South's livest radio distributors and a dead shot with the rifle. "G. A." was selling radio to idle fire ladders and such three years ago. Today he's president of the Radio Sales Company, Memphis, Tenn., Atwater Kent jobbers for the "tri-state" territory and reputed to be a record breaker for securing coverage. Gus says there's lots of deer down Alabama way and has already lined up three dates with his dealers for the coming season.

THE CARRYOLA COMPANY OF AMERICA, Milwaukee, Wis., has named two new distributors. The T. E. Swann Company, Dallas, Texas, will cover the state of Texas and surrounding territory, while H. C. Schultz, Inc., Detroit, Mich., will operate in Michigan and northern Ohio.

THE BELMONT CORPORATION, Minneapolis, and St. Paul, Minn., Sonora distributor, has increased the amount of its capital stock from 500 shares to 1,500 shares, 1,400 being common stock and 100 shares being preferred stock.

\$218,000 Is Average Yearly Turnover of Radio Jobber

Radio jobbers average a \$218,000 business annually, according to a special survey of jobbers' stocks throughout the country by the Electrical Equipment Division, Department of Commerce. 375 jobbers reported. The annual volume of business done by jobbers in the different geographical groups is as follows: Jobbers in New York, New Jersey, and Philadelphia averaged \$298,000 each. New England jobbers came next with an average annual business of \$264,000, with the Great Lakes region jobbers averaging \$245,000. The jobbers in Kentucky, Tennessee, Alabama and Mississippi reported the lowest average amount of trade, \$118,000.

Considering the number of jobbers reporting on both dates, actual stocks on hand of battery operated sets showed a marked decline on January 1, 1928, as compared with October 1, 1927, whereas the number of A.C. operated sets greatly increased. Stocks of speakers approximated the total number of sets on both dates. Holdings of batteries, both storage and dry, were considerably lower on January 1, 1928 than on October 1, 1927. Socket power units showed no particular variance as to number on hand. Stocks of receiving tubes of the storage battery-operated type were markedly lower on January 1, 1928, whereas there were many more A.C. tubes on hand on that date than on October 1, 1927.

L. A. CHAMBERS COMPANY has established new and larger headquarters at 549 West Washington Street, Chicago, Ill. The Chambers company is representative in Chicago and the outlying districts for Tobe-Deutschmann company and Silver-Marshall, Inc.

THE AMRAD CORPORATION, Medford Hillside, Mass., has recently added the Hardware Products Company, Sterling, Ill., and the Orgill Bros. Company, Memphis, Tenn., and Jackson, Miss., to its list of distributors.

THE MOTOR PARTS COMPANY, 818 N. Broad Street, Philadelphia, Pa., has been appointed by the Crosley Radio Corporation, Cincinnati, Ohio, as exclusive distributor in that territory.

The Largest Dealer Delegation to Visit A-K Factory



Seventeen pullman cars carrying over three hundred A-K dealers pulled into Philadelphia recently for a visit to the Atwater Kent factory. The delegation represented the retail trade of Parks & Hull, Inc., Baltimore, Md., the Burr-True Corporation, Syracuse, N. Y., and the D'Elia Electric Company, Bridgeport, Conn. In

the evening the visitors were guests at a banquet at the Ritz-Carlton Hotel, followed by a theater party. The assembly was addressed by V. W. Collamore, general sales manager, R. E. Smiley, assistant sales manager, and P. A. Ware, merchandising manager.

Specifications of Fixed Condensers

THE publishing of information concerning radio products together with the name and address of the manufacturer is a feature of *Radio Retailing's* editorial service. This service is without charge of any kind to the manufacturers listed. All manufacturers are sent questionnaires and lack of representation in these lists means lack of co-operation from the manufacturer.

The following is a list of fixed condensers, both the small mica type and the larger paper type used in B-supply units and power amplifiers. It will be noticed that, by far, the majority are non-inductive, which is

a type of winding best suited to the use of these condensers in radio equipment. Also, tin foil seems to be the popular material used for the plates although some aluminum and copper is used. Only a few of the manufacturers make a practice of carrying a large stock in various capacities for different working voltages but in all cases any size may be had on special order. It should also be borne in mind that not only the number of layers of paper used but also the *thickness* and quality of the paper are very important factors in the making of a condenser of quality.

Name and Address of Manufacturer	Trade Name and Model Number	List Price	Total Capacity in Micro-farads	Unit Capacities of Block Type	Safe D.C. Working Voltage	Inductive or Non-Inductive Construction	Material of Dielectric	Number of Layers of Dielectric Used	Material of Plates	Material of Container	Capacitance Tolerance Per Cent	Overall Dimensions in Inches H W D	
Acme Wire Co. New Haven, Conn.	Parvolt— 200		.1		200	Non-ind.	Paper		Foil	Metal	±10	1 1/8 x 1 1/8 x 1/8	
	200		.25		200	Non-ind.	Paper		Foil	Metal	±10	1 1/8 x 1 1/8 x 1/8	
	200		.5		200	Non-ind.	Paper		Foil	Metal	±10	1 1/8 x 1 1/8 x 1/8	
	200		1.		200	Non-ind.	Paper		Foil	Metal	±10	1 1/8 x 1 1/8 x 1/8	
	200		2.		200	Non-ind.	Paper		Foil	Metal	±10	1 1/8 x 1 1/8 x 1/8	
	200		2.		200	Non-ind.	Paper		Foil	Metal	±10	1 1/8 x 1 1/8 x 1/8	
	400		.5		400	Non-ind.	Paper		Foil	Metal	±10	5 x 3 3/4 x 1 1/8	
	400		1.		400	Non-ind.	Paper		Foil	Metal	±10	5 x 3 3/4 x 1 1/8	
	400		2.		400	Non-ind.	Paper		Foil	Metal	±10	5 x 3 3/4 x 1 1/8	
	400		4.		400	Non-ind.	Paper		Foil	Metal	±10	5 x 3 3/4 x 1 1/8	
	600		1.		600	Non-ind.	Paper		Foil	Metal	±10	5 x 3 3/4 x 1 1/8	
	600		2.		600	Non-ind.	Paper		Foil	Metal	±10	5 x 3 3/4 x 1 1/8	
	600		4.		600	Non-ind.	Paper		Foil	Metal	±10	5 x 3 3/4 x 1 1/8	
	1000		1.		1000	Non-ind.	Paper		Foil	Metal	±10	5 x 3 3/4 x 1 1/8	
	1000		2.		1000	Non-ind.	Paper		Foil	Metal	±10	5 x 3 3/4 x 1 1/8	
	1500		4.		1500	Non-ind.	Paper		Foil	Metal	±10	5 x 3 3/4 x 2 1/8	
	1500		4.		1500	Non-ind.	Paper		Foil	Metal	±10	5 x 3 3/4 x 2 1/8	
		Buffer Thordarson R-210A Block Thordarson R-171 Block Samson R-210 Block Samson 713 & 718 Block		.2	2-2-2-1-4-1 2-2-8-1-1	400 Std. Std. Std.	Non-ind. Non-ind. Non-ind. Non-ind.	Paper Paper Paper Paper		Foil Foil Foil Foil	Metal Metal Metal Metal	±10 ±10 ±10 ±10	1 1/8 x 1 1/8 x 1/8 6 1/8 x 4 1/8 x 2 1/8 5 x 4 1/8 x 1 1/8 Samson Design
	American Electric Company, Inc. 6401 So. State St. Chicago, Ill.	Condenser Block—700	\$12.50	16	8-4-2-1-1	530	Non-ind.		2			±5	
		701	11.00	14	8-2-2-1-1	500	Non-ind.		2			±5	
702		9.50	12	8-2-2	500	Non-ind.		2			±5		
210 tube comb. 703		17.00			1000	Non-ind.		2			±5		
Pwr. Com. 171 tube 704		14.50			500	Non-ind.		2			±5		
					1000	Non-ind.		2			±5		
Buffer Condenser 705		1.50			& 500	Non-ind.		2			±5		
Amer. Elec.—510		.60	.05		1200	Non-ind.		2			±5		
515		.70	.1		350	Non-ind.		2			±5		
520		.75	.25		350	Non-ind.		2			±5		
525		.90	.5		350	Non-ind.		2			±5		
530		1.20	1.		350	Non-ind.		2			±5		
531		1.20	1.		350	Non-ind.		2			±5		
535		1.35	1.25		350	Non-ind.		2			±5		
540		1.60	1.5		350	Non-ind.		2			±5		
550		1.75	2.		350	Non-ind.		2			±5		
555		2.40	2.5		350	Non-ind.		2			±5		
560		2.75	3.		350	Non-ind.		2			±5		
565		3.50	4.		350	Non-ind.		2			±5		
570		4.35	5.		350	Non-ind.		2			±5		
575		5.25	6.		350	Non-ind.		2			±5		
585		7.00	8.		350	Non-ind.		2			±5		
595		8.75	10.		350	Non-ind.		2			±5		
600		13.00	15.		350	Non-ind.		2			±5		
810		.65	.05		1000	Non-ind.		2			±5		
815		.75	.1		1000	Non-ind.		2			±5		
820		.90	.25		1000	Non-ind.		2			±5		
825		1.25	.5		1000	Non-ind.		2			±5		
830	1.75	1.		1000	Non-ind.		2			±5			
850	3.00	2		1300	Non-ind.		2			±5			
860	4.25	3.		1000	Non-ind.		2			±5			
865	5.50	4.		1000	Non-ind.		2			±5			
Amrad Corp. 205 College Ave. Medford Hillside, Mass.	TR-3-10	7.75	30		300	Non-ind.	Ox. film	1	Alum.	Copper	±20	5x3 dia.	
	QR-4-10	9.50	40		300	Non-ind.	Ox. film	1	Alum.	Copper	±20	5x3 dia.	
	S-90	8.95	90		300	Non-ind.	Ox. film	1	Alum.	Copper	±20	5x3 dia.	
	D-2-25	7.75	50		300	Non-ind.	Ox. film	1	Alum.	Copper	±20	5x3 dia.	
	S-10	4.75	10		300	Non-ind.	Ox. film	1	Alum.	Copper	±20	5x3 dia.	
	S-25	6.80	25		300	Non-ind.	Ox. film	1	Alum.	Copper	±20	5x3 dia.	
	N-50	7.80	50		300	Non-ind.	Ox. film	1	Alum.	Copper	±20	5x3 dia.	
	T-1-10-2-25	9.15	60		300	Non-ind.	Ox. film	1	Alum.	Copper	±20	5x3 dia.	
	T-1-25-2-10	8.50	45		300	Non-ind.	Ox. film	1	Alum.	Copper	±20	5x3 dia.	
	Q-2-10-2-25	10.75	70		300	Non-ind.	Ox. film	1	Alum.	Copper	±20	5x3 dia.	
	Note—These are electrolytic type.												
	Aerovox Wireless Corp. 70 Washington St. Brooklyn, N. Y.	1450	.35	.00004		500		Mica		Tinfoil	Bakelite	±10	1 1/8 x 1/8 x 2 3/8
1475		.40	.0001		200		Mica		Tinfoil	Bakelite	±10	1 1/8 x 1/8 x 2 3/8	
250		.70	.05	to .0005	200		Paper	4	Tinfoil	Bakelite	±10	1 1/8 x 1/8 x 2 3/8	
200-S		.55	.05	to 1.	200		Paper	4	Tinfoil	Alum.	±10	2 x 1 1/8 x 3/8	
202		1.25	1	to 2.	200		Paper	4	Tinfoil	Alum.	±10	2 x 1 1/8 x 3/8	

Fixed Condensers—continued

Name and Address of Manufacturer	Trade Name and Model Number	List Price	Total Capacity in Microfarads	Unit Capacities of Block Type	Safe D.C. Working Voltage	Inductive or Non-Inductive Construction	Material of Dielectric	Number of Layers of Dielectric Used	Material of Plates	Material of Container	Capacitance Tolerance Per Cent	Overall Dimensions in Inches H W D
Aerovox Wireless Corp.—Continued	302	\$.80 to 10.25	.1 to 10		300		Paper	6	Tin foil	Alum.	±10	2x1 1/2x1 1/2
	402	1.00 to 11.75	.1 to 10		400		Paper	6	Tin foil	Alum.	±10	2x1 1/2x1 1/2
	602	1.10 to 21.50	.1 to 10		600		Paper	8	Tin foil	Alum.	±10	2x1 1/2x1 1/2
	1002	1.50 to 25.50	.1 to 10		1000		Paper	8	Tin foil	Alum.	±10	2x1 1/2x1 1/2
Carter Radio Co. 300 S. Racine Ave. Chicago, Ill.	101	.75	.1		180	Non-ind.	Linen Paper	2	Pure Tin foil	Tin	±10	
	102	.75	.25		180	Non-ind.						
	105	.90	.5		180	Non-ind.						
	110	1.25	1.0		180	Non-ind.						
	201	.75	.1		200	Non-ind.						
	202	.75	.25		200	Non-ind.						
	205	.90	.5		200	Non-ind.						
	210	1.25	1.0		200	Non-ind.						
	220	1.90	2.0		200	Non-ind.						
	240	4.00	4.0		200	Non-ind.						
	260	5.25	6.0		200	Non-ind.						
	301	.80	.1		300	Non-ind.						
	302	.95	.25		300	Non-ind.						
	305	1.20	.5		300	Non-ind.						
	310	1.75	1.0		300	Non-ind.						
	320	2.75	2.0		300	Non-ind.						
	340	4.75	4.0		300	Non-ind.						
	360	6.75	6.0		300	Non-ind.						
	401	1.00	.1		400	Non-ind.						
	402	1.20	.25		400	Non-ind.						
	405	1.40	.5		400	Non-ind.						
	410	2.00	1.0		400	Non-ind.						
	420	3.50	2.0		400	Non-ind.						
	440	6.50	4.0		400	Non-ind.						
	460	8.50	6.0		400	Non-ind.						
	601	1.20	.1		600	Non-ind.						
	602	1.60	.25		600	Non-ind.						
	605	2.00	.5		600	Non-ind.						
	610	3.00	1.0		600	Non-ind.						
	620	5.50	2.0		600	Non-ind.						
	640	10.00	4.0		600	Non-ind.						
	660	15.00	6.0		600	Non-ind.						
	1001	1.50	.1		1000	Non-ind.						
	1002	1.80	.25		1000	Non-ind.						
	1005	3.00	.5		1000	Non-ind.						
	1010	3.50	1.0		1000	Non-ind.						
	1020	10.00	2.0		1000	Non-ind.						
	1040	18.50	4.0		1000	Non-ind.						
	1060	30.00	6.0		1000	Non-ind.						
	444	2.00	.1-1*		400	Non-ind.						
	666	3.00	.1-1*		600	Non-ind.						
	1110	3.75	.1-1*		1000	Non-ind.						
	C-300	15.00	14.0	{ 2-2-2-2 }		Non-ind.						
	C-600	22.00	14.0	{ 1-1-1-1 }		Non-ind.						
	B-200	11.00	14.0	2-2-8-1-1		Non-ind.						
	B-300	12.00	14.0	2-2-8-1-1		Non-ind.						
	B-400	16.00	14.0	2-2-8-1-1		Non-ind.						
	A-600	15.00	10.0	2-4-4		Non-ind.						
	ABC-600	26.00	19.0	4-4-8-1-1-1		Non-ind.						
	T-600	17.00	11.0	2-2-2-1-4		Non-ind.						
Q-600	24.00	16.0	5-5-5-1		Non-ind.							
T1000	30.00	8.0	2-2-4		Non-ind.							
.00005	.40				Non-ind.	Mica	Tin foil	Bakelite	±10			
.00007	.40				Non-ind.	Mica	Tin foil	Bakelite	±10			
.00015	.40				Non-ind.	Mica	Tin foil	Bakelite	±10			
.00025	.40				Non-ind.	Mica	Tin foil	Bakelite	±10			
.0005	.40				Non-ind.	Mica	Tin foil	Bakelite	±10			
.001	.50				Non-ind.	Mica	Tin foil	Bakelite	±10			
.002	.70				Non-ind.	Mica	Tin foil	Bakelite	±10			
.0025	.85				Non-ind.	Mica	Tin foil	Bakelite	±10			
.005	.70				Non-ind.	Mica	Tin foil	Bakelite	±10			
.006	.85				Non-ind.	Mica	Tin foil	Bakelite	±10			
.0075	.95				Non-ind.	Mica	Tin foil	Bakelite	±10			
.01	1.15				Non-ind.	Mica	Tin foil	Bakelite	±10			
.015	1.40				Non-ind.	Mica	Tin foil	Bakelite	±10			
	.50	.0001			Non-ind.	Mica	Tin foil	Bakelite	±10			
	.50	.00015			Non-ind.	Mica	Tin foil	Bakelite	±10			
	.50	.00007			Non-ind.	Mica	Tin foil	Bakelite	±10			
	.50	.00025			Non-ind.	Mica	Tin foil	Bakelite	±10			
	.50	.0005			Non-ind.	Mica	Tin foil	Bakelite	±10			
	1.75	.02			Non-ind.	Mica	Tin foil	Bakelite	±10			
*In series.												
Concourse Electric Co., 294 E. 137th St., New York City									Manu	facture to s	pecificati	ons.
Condenser Corp. of America 25 Waverly Place New York City	Acracoon Type—L			.1 Mfd. and up	200	Both	Wax. paper	2	Tin foil	To order	±5	
	Y				300	Both	Wax. paper	3	Tin foil	To order	±5	
	M				400	Both	Wax. paper	3	Tin foil	To order	±5	
	W				500	Both	Wax. paper	4	Tin foil	To order	±5	
	H				600	Both	Wax. paper	4	Tin foil	To order	±5	
	Z				750	Both	Wax. paper	5	Tin foil	To order	±5	
	X				900	Both	Wax. paper	6	Tin foil	To order	±5	
Note—Mfr. mainly for mfrs. of sets and power units.					1500	Both	Wax. paper	6	Tin foil	To order	±5	
Daven Corp. 158 Summit St. Newark, N. J.	Type "A"		.1		300	Non-ind.	Paper	4	Lead	Bakelite	±3	1x1 1/2x1 1/2
	Type "A"		.01		300	Non-ind.	Paper	4	Lead	Paper	±3	1 1/8x1 1/8x1 1/8
	Type "A"		.005		300	Non-ind.	Paper	4	Lead	Paper	±3	1 1/8x1 1/8x1 1/8
DeJur Products Co. 199 Lafayette St. New York City	Fixed Mica Cond.	.25	.00025			Non-ind.	Mica		Tin foil			
	Fixed Mica Cond.	.25	.0005			Non-ind.	Mica		Tin foil			
	Fixed Mica Cond.	.30	.001			Non-ind.	Mica		Tin foil			
	Fixed Mica Cond.	.35	.002			Non-ind.	Mica		Tin foil			
	Fixed Mica Cond.	.40	.003			Non-ind.	Mica		Tin foil			
	Fixed Mica Cond.	.75	.006			Non-ind.	Mica		Tin foil			

Fixed Condensers—continued

Name and Address of Manufacturer	Trade Name and Model Number	List Price	Total Capacity in Microfarads	Unit Capacities of Block Type	Safe D.C. Working Voltage	Inductive or Non-Inductive Construction	Material of Dielectric	Number of Layers of Dielectric Used	Material of Plates	Material of Container	Capacitance Tolerance Per Cent	Overall Dimensions in Inches H W D	
Dubiller Condenser Corp. 4377 Bronx Blvd. New York City	PL-574	16.50	14	2-2-8-1-1	200	Non-ind.	Paper		Tin foil	Jap. tin	±10	5½x4½x3½	
	PL-575	17.50	12	2-2-2-4-1-1	550	Non-ind.	Paper		Tin foil	Jap. tin	±10	7x4½x3½	
	PL-700	17.50	11	2-2-2-4-1	550	Non-ind.	Paper		Tin foil	Jap. tin	±10	5½x6½x3½	
	Type 907-8	to 2.00		.1 to 2	200-400	Non-ind.	Paper		Tin foil	Jap. tin	±10		
	PL-648-Buffer	2.00	2	.1-1	400	Non-ind.	Paper		Tin foil	Jap. tin	±10		
	PL-576-Buffer	2.50	2	.1-1	600	Non-ind.	Paper		Tin foil	Jap. tin	±10	2½x2½x1½	
	PL-668	3.50	2	.1-1	400	Non-ind.	Paper		Tin foil	Jap. tin	±10	2½x2½x1½	
	PL-649-Buffer	4.00	2	.1-1	1000	Non-ind.	Paper		Tin foil	Jap. tin	±10	5½x2½x1½	
	PL-666	6.50	2	.2	1000	Non-ind.	Paper		Tin foil	Jap. tin	±10	2½x2½x1½	
	Type-686-1	6.00	1	.1	1000	Non-ind.	Paper		Tin foil	Jap. tin	±10	5½x4½x2	
	PL-581	7.00	6	5-1	400	Non-ind.	Paper		Tin foil	Jap. tin	±10	6½x1½x5	
	PL-580	8.00	5	.5	600	Non-ind.	Paper		Tin foil	Jap. tin	±10	5½x3½x2½	
	PL-706	8.25	10	4-4-1-1	200	Non-ind.	Paper		Tin foil	Jap. tin	±10	5½x3½x2½	
	PL-579-Buffer	9.00	.8	.1-25-	400	Non-ind.	Paper		Tin foil	Jap. tin	±10	5½x3½x2½	
				.25-1-1									
	Type-686-2	10.00	2	.2	1000	Non-ind.	Paper		Tin foil	Jap. tin	±10	6½x2½x5	
	PL-667	11.00	4	.4	1000	Non-ind.	Paper		Tin foil	Jap. tin	±10	5½x4½x4½	
	Type-901 to 904	to 11.50			200 to 1000	Non-ind.	Paper		Tin foil	Jap. tin	±10		
					1 to 6								
	PL-707	12.50	10	4-4-1-1	400	Non-ind.	Paper		Tin foil	Jap. tin	±10	5½x4½x3½	
PL-664	15.00	12	2-4-4-1-1	200	Non-ind.	Paper		Tin foil	Jap. tin	±10	5½x3½x2½		
PL-665	16.00	10	4-4-1-1	600	Non-ind.	Paper		Tin foil	Jap. tin	±10	6½x4½x3½		
PL-650	16.50	12	2-2-8-1-1	200	Non-ind.	Paper		Tin foil	Jap. tin	±10	5½x3½x2½		
PL-618	32.00	18	2-4-12	550	Non-ind.	Paper		Tin foil	Jap. tin	±10	7x5½x5		
Electrad Inc. 173 Varick St. New York	Electrad Mica	.30	.0001		200		Mica	1	Copper		±10	1½x1½x1½	
		.30	.00025		200		Mica	1	Copper		±10	1½x1½x1½	
		.30	.0005		200		Mica	1	Copper		±10	1½x1½x1½	
		.40	.002		200		Mica	1	Copper		±10	1½x1½x1½	
		.50	.004		200		Mica	1	Copper		±10	1½x1½x1½	
	Electrad Filter	.75	.006		200		Mica	1	Copper		±10	1½x1½x1½	
		.60	.1		200		Paper	2	Tin foil	Tin	±10	2½x1½x1½	
		.70	.25		200		Paper	2	Tin foil	Tin	±10	2½x1½x1½	
		.75	.5		200		Paper	2	Tin foil	Tin	±10	2½x1½x1½	
		.90	1		200		Paper	2	Tin foil	Tin	±10	2½x1½x1½	
		1.00	.1		450		Paper	3	Tin foil	Tin	±10	2½x1½x1½	
		1.10	.25		450		Paper	3	Tin foil	Tin	±10	2½x1½x1½	
		1.50	.5		450		Paper	3	Tin foil	Tin	±10	4½x2½x1½	
		1.65	2		200		Paper	2	Tin foil	Tin	±10	4½x2½x1½	
		1.65	.1		650		Paper	4	Tin foil	Tin	±10	2½x1½x1½	
		1.75	.25		650		Paper	4	Tin foil	Tin	±10	2½x1½x1½	
		2.00	1		450		Paper	3	Tin foil	Tin	±10	2½x1½x1½	
		2.00	.5		650		Paper	4	Tin foil	Tin	±10	4½x2½x1½	
		2.50	1		650		Paper	4	Tin foil	Tin	±10	4½x2½x1½	
		3.00	2		450		Paper	3	Tin foil	Tin	±10	4½x2½x1½	
	3.25	4		200		Paper	2	Tin foil	Tin	±10	4½x2½x1½		
	4.00	2		650		Paper	4	Tin foil	Tin	±10	4½x2½x1½		
	5.50	4		450		Paper	3	Tin foil	Tin	±10	5x3½x2½		
	7.00	4		650		Paper	4	Tin foil	Tin	±10	5x3½x2½		
Electric Specialty Co., Cresco, Iowa, Manufactory				to Specifications.									
General Radio Co. 30 State St. Cambridge, Mass.	Type-236	1.00	.1		200		Paper		Tin foil	Metal		4x1½x1½	
		1.00	.2		200		Paper		Tin foil	Metal			
		1.00	.3		200		Paper		Tin foil	Metal			
		1.00	.4		200		Paper		Tin foil	Metal			
		1.00	.5		200		Paper		Tin foil	Metal			
Igrad Condenser & Mfg. Co. 26 Ave. D Rochester, N. Y.	401 -A	.50	.1		300	Non-ind.		2	Metal foil	Tin	±10	2x1½x2	
	4025-A	.65	.25		300	Non-ind.		2	Metal foil	Tin	±10	2x1½x2	
	405 -A	.70	.5		300	Non-ind.		2	Metal foil	Tin	±10	2x1½x2	
	41 -A	.85	1.0		300	Non-ind.		2	Metal foil	Tin	±10	2x1½x2	
	42 -A	1.60	2.0		300	Non-ind.		2	Metal foil	Tin	±10	1½x1½x2	
	44 -A	3.00	4.0		300	Non-ind.		2	Metal foil	Tin	±10	1½x1½x2	
	6025-A	.90	.25		600	Ind.		3	Metal foil	Tin	±10	2½x1½x2	
	605 -A	1.10	.5		600	Ind.		3	Metal foil	Tin	±10	2½x1½x2	
	61 -A	1.40	1.0		600	Ind.		3	Metal foil	Tin	±10	1½x1½x2	
	62 -A	2.25	2.0		600	Ind.		3	Metal foil	Tin	±10	1½x1½x2	
	64 -A	4.25	4.0		600	Ind.		3	Metal foil	Tin	±10	2½x1½x2	
	705 -A	1.50	.5		1000	Ind.		4	Metal foil	Tin	±10	4½x1½x2	
	71 -A	2.00	1.0		1000	Ind.		4	Metal foil	Tin	±10	1½x1½x2	
	72 -A	3.25	2.0		1000	Ind.		4	Metal foil	Tin	±10	2½x1½x2	
	74 -A	5.75	4.0		1000	Ind.		4	Metal foil	Tin	±10	4½x1½x2	
	801 -A	.70	.1		1250	Ind.		5	Metal foil	Tin	±10	5x2½x2½	
	802 -AX	1.08	.2		1250	Ind.		5	Metal foil	Tin	±10	2x1½x2	
	805 -A	2.20	.5		1250	Ind.		5	Metal foil	Tin	±10	2x1½x2	
	81 -A	3.20	1.0		1250	Ind.		5	Metal foil	Tin	±10	1½x1½x2	
	82 -A	4.75	2.0		1250	Ind.		5	Metal foil	Tin	±10	4½x1½x2	
84 -A	8.20	4.0		1250	Ind.		5	Metal foil	Tin	±10	5x1½x2½		
202 -A	8.25	2.0		2000	Ind.		6	Metal foil	Tin	±10	4x1½x4½		
B-210	15.00	13.0		{ 200 } { 400 } { 1000 }	{ Ind. Ind. Ind. }		2-3-4	{ Metal foil Metal foil Metal foil }	{ Tin Tin Tin }	{ ±10 ±10 ±10 }	{ 5x2½x3½ 5x4½x2½ 5x4½x2½ }		
B-171	14.25	15.0		200-600	Ind.		2-3	Metal foil	Tin	±10	5x4½x2½		
210-S	36.00	27.0			Ind.			Metal foil	Tin	±10	4½x3½x15		
718-S	26.00	24.0			Ind.			Metal foil	Tin	±10	4½x3½x9		
B unit	11.00	14.02		300	Ind.		2	Metal foil	Tin	±10	5x3½x2½		
BH unit	13.50	14.0		500	Ind.		3	Metal foil	Tin	±10	5x3½x2½		
Muter Co., Leslie F. 76th & Greenwood Ave., Chicago, Ill.	Muter No. 505	.60	.1		200	Non. Ind.		2	Tin foil	Metal	-5+15	2x2x2	
	506	.70	.25		200	Non. Ind.		2	Tin foil	Metal	-5+15	2x2x2	
	507	.75	.5		200	Non. Ind.		2	Tin foil	Metal	-5+15	2x2x2	
	508	.90	1.0		200	Non. Ind.		2	Tin foil	Metal	-5+15	2x2x2	
	525	.75	.1		400	Non. Ind.		3	Tin foil	Metal	-5+15	2x2x2	
	545	1.25	1.0		200	Non. Ind.		2	Tin foil	Metal	-5+15	2x2x2	
	546	2.00	2.0		200	Non. Ind.		2	Tin foil	Metal	-5+15	2x1x5	
	548	3.00	4.0		200	Non. Ind.		2	Tin foil	Metal	-5+15	2x1x5	
	565	2.00	1.0		400	Non. Ind.		2	Tin foil	Metal	-5+15	2x1x5	
	566	3.00	2.0		400	Non. Ind.		3	Tin foil	Metal	-5+15	2x1x5	
	568	5.00	4.0		400	Non. Ind.		3	Tin foil	Metal	-5+15	2x1x5	
	575	3.00	1.0		600	Non. Ind.		3	Tin foil	Metal	-5+15	2x1x5	
	576	5.00	2.0		600	Non. Ind.		4	Tin foil	Metal	-5+15	2x1x5	
	578	9.00	4.0		600	Non. Ind.		4	Tin foil	Metal	-5+15	2x1x5	
	581	4.00	1.0		800	Non. Ind.		5	Tin foil	Metal	-5+15	2½x2x5	
	582	5.00	1.0		1000	Non. Ind.		6	Tin foil	Metal	-5+15	2½x2x5	

New Dealer Help Material

Aids to greater profits provided by radio manufacturers for their dealers

"Just Plug In"



Federal-Brandes, Inc., Newark, N. J., offers this counter card showing the advantages of "just plugging in" with an all-electric set. The plug from a Kolster is inserted in the socket. The card measures 10 inches by 14 inches and is printed in green and black. Free upon request.

THE INTERNATIONAL RESISTANCE COMPANY, 2½ South 20th Street, Philadelphia, Pa., is supplying its dealers with display cards, 11 in. high x 6½ in. wide, calling attention to its Durham, metallized resistors. They are printed in red and blue. This company also offers 3 in. x 7½ in. cards on the same product. The latter may be used as envelope stuffers or placed on the counter. Both are obtainable direct from the International Resistance Company.

ARTHUR H. LYNCH, INC., 1775 Broadway, New York City, is offering a cardboard wall-chart on its fixed resistors, with a table giving the prices and size range; a wall sign on its resistance-couple amplifier kit, as well as a folder on the same product; and a loose-leaf page, to be inserted in a binder, describing and illustrating its line of resistances. All this material will be sent upon request.

THE ESSENSEE RADIO DEVICES COMPANY, 2014 W. Lake Street, Chicago, Ill., is furnishing its dealers with an easel-back counter display, illustrating its ball aerial and showing how it is installed on both flat and gable roofs. This display is printed in red and black and is 21 in. high x 10½ in. wide. It may be obtained direct from the Essenbee Company.

Arcturus Window Streamer



The Arcturus Tube Company, Newark, N. J., is offering, free to its dealers, bright window streamers and counter cards, which tell briefly the story of Arcturus tubes. The illustrated window strip, as well as the card, is printed in the characteristic Arcturus blue and orange colors and may be obtained direct from the company.

"Be Your Own Broadcaster"



This display will appeal to the customer who is always seeking something different. It shows the various uses of the "home broadcaster," made by the Brooklyn Metal Stamping Company, 718 Atlantic Avenue, Brooklyn, N. Y. Humorously illustrated handbills giving complete information on this equipment are also supplied. The card is printed in red, black and yellow and measures 8½ inches by 11 inches. Sent free upon request to the above company.

Group of Dealer Helps Offered by Kellogg



All the illustrated material, which includes a B-power unit cut-out display, two counter standards—one framed—an effective counter card with raised letters on A.C. tubes and a 3-piece window display card, will be sent free to Kellogg dealers upon request to that company at 1066 W. Adams Street, Chicago, Ill.

YAHR-LANGE, INC., Milwaukee, Wis., has available, free to its dealers, a number of electros and mats for use in newspaper advertising. These include illustrations showing the antenna, its installation on roofs, a complete antenna kit, as well as complete ads, requiring only the insertion of the dealer's name. This company also offers three different decalomania window signs and a three-piece window display, lithographed in seven colors. A broadside illustrating all this material will be sent free upon request.

F. A. D. ANDREA, INC., Long Island City, N. Y., has issued a poster showing the Fada 8 chassis and listing several of its features. This poster is printed in red and blue, and is intended for use in the Fada special, metal poster frame, although it may be hung without it. Sent to dealers free of charge.

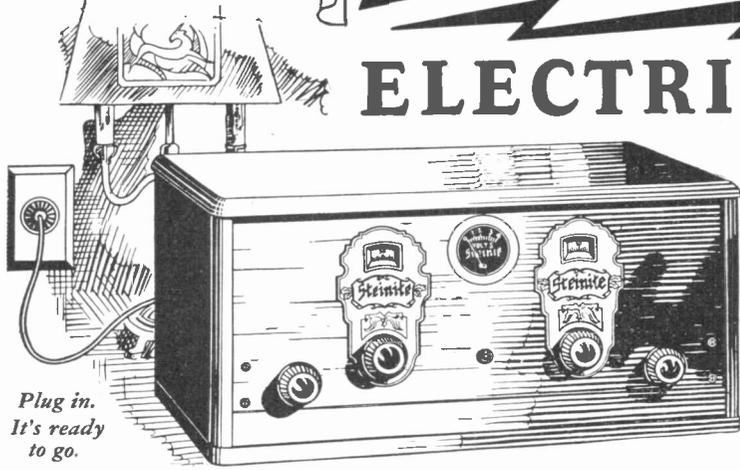
THE RADIALL COMPANY, 50 Franklin Street, New York City, has prepared a handy pocket-size, yellow card, 3 in. x 5 in., advertising the Amperite. On the back is a list of tubes, together with the correct type Amperite to be used with each. They will be sent upon request.

THE HYATT ELECTRIC CORPORATION, 836 N. Wells Street, Chicago, Ill., has available to dealers, small display standards, size 4 in. x 4 in., to be used on the store counter, on top of the radio sets or in the display window, for advertising its portable sets.

The **NEW**
one unit

Steinite

ELECTRIC RADIO

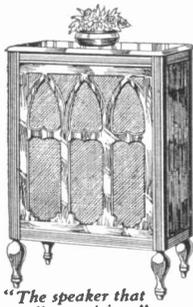


Plug in.
It's ready
to go.

still \$**85**

AMERICA'S GREATEST VALUE!

PRAISE—for this great set



"The speaker that
thrills musicians"

—and the
**MARVELOUS NEW
STEINITE
POLYPHONIC
SPEAKER!**

Built Like a Pipe Organ

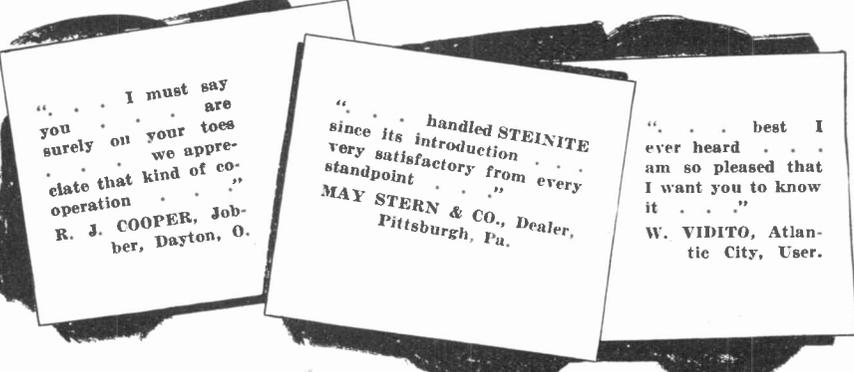
Here is STEINITE'S latest triumph —
the STEINITE Polyphonic Speaker! A
rich console model at \$45—and a table
model at \$20! It's a solid success!—

THE wave of enthusiasm which started when
STEINITE announced its great new model at
\$85—still America's greatest radio value—has
covered the country! Everywhere there is praise
for this true electric radio—time-tested—using no
batteries, no liquids, no outside attachments! Its
sensational acceptance by the radio public has
given jobbers and dealers a new idea of turn-over
and profits!

—from Jobbers—*from Dealers—*from Users

Our files are filled with thousands of testimonials similar to those on
this page. Cash in on this wave of popularity—write for the
STEINITE proposition!

THE STEINITE RADIO CO., 506 S. Wabash Ave., Chicago



"... I must say
you are
surely on your toes
we appreciate that kind of co-
operation"
R. J. COOPER, Job-
ber, Dayton, O.

"... handled STEINITE
since its introduction
very satisfactory from every
standpoint"
MAY STERN & CO., Dealer,
Pittsburgh, Pa.

"... best I
ever heard
am so pleased that
I want you to know
it"
W. VIDITO, Atlan-
tic City, User.

Mail the Coupon!

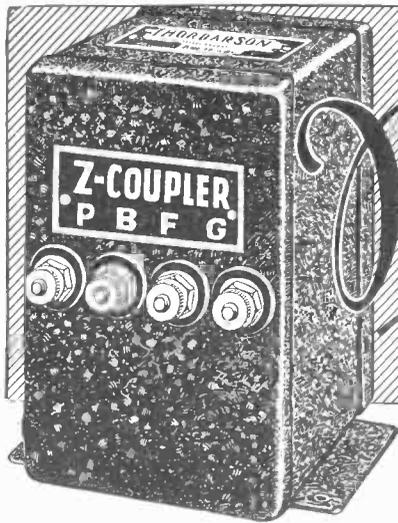
STEINITE RADIO COMPANY
506 S. Wabash Avenue, Chicago, Ill.

Send me full details of your new model, your new
speaker, and the STEINITE proposition.

Name

Address

City



The Thordarson Z-Coupler, a special audio impedance coupler for use with screen grid tubes; price each, \$12.

SCREEN-GRID Audio Amplification

Screen grid audio amplification, most revolutionary development in audio systems since the introduction of the power tube, is now an established fact.

The Thordarson Z-Coupler is a special audio coupling device designed for use with the screen grid tube UX-222.

With the remarkable amplification thus obtained a mere whisper from the detector is stepped up to a point that gives the power tube all it can handle in the way of signal voltage. In fact, one stage Z-Coupled audio has the amplification equivalent of two, or even three, stages of ordinary coupling. Signals barely audible before may now be heard at normal room volume.

In tone quality, too, the Z-Coupler is unexcelled. Despite the high amplification the tonal reproduction is as nearly perfect as any audio amplifier yet developed. Both high and low notes come through with the same volume increase. Even at 60 cycles the amplification is over 95% of maximum.

Here is an excellent opportunity for live dealers to cash in on the replacement market. Install a Z-Coupler amplifier in any obsolete receiver on your shelf. You will sell yourself on the first hearing. If your nearest jobber has not yet received his stock, write today for your nearest source of supply.

Full page announcements of the Z-Coupler will appear in May Radio, Radio Broadcast, Popular Radio, Radio Engineering, Q. S. T. and June Radio News and Popular Science Monthly.

THORDARSON Z-COUPLER

THORDARSON ELECTRIC MANUFACTURING CO.
Transformer Specialists Since 1895
WORLD'S OLDEST AND LARGEST EXCLUSIVE TRANSFORMER MAKERS
Huron and Kingsbury Streets - Chicago, Ill. U.S.A.

Write To-Day for Complete Information

THORDARSON ELECTRIC MFG. CO.
Huron and Kingsbury Sts., Chicago, Ill.
Gentlemen:

Without obligation on my part, please send me complete information on screen grid audio amplifiers using your new Z-Coupler. (M)

Name

Street and No.

Town State

MERCHANDISING RADIO PARTS



A Section of *Radio Retailing*

April, 1928

What PARTS Are Selling in CORTLANDT STREET?

A tour through the Rialto of Parts discloses the items that are now in demand by set-building fans

CORTLANDT Street, the "Rialto" of parts dealers in New York City, may not affect the parts business in other sections of the United States but it does reflect the trend and the demand. What is selling in Cortlandt Street is selling in other parts centers such as Boston, Chicago, San Francisco or Toronto and if the items are not in demand in other cities and towns they can be sold there if they are stocked and pushed.

With this in mind the "inquiring editor" of *Radio Retailing* visited two dozen stores on that famous thoroughfare in an effort to determine just what the set-building fans are buying at the moment.

The rage in Cortlandt Street, at present, is for power amplification and reproduction with A, B and C-current supply units. Parts buyers want bigger and better amplification, in every way, and it is astonishing to what extent they are going after it. The City Radio Stores Company, operating four stores in the New York metropolitan district, states that 25 per cent of its parts sales is in power amplification and current supply items. Most of these sales are made for the improvement of old sets, although many, of course, are made in conjunction with parts for new sets.

One manufacturing company is specializing almost exclusively in parts for push-pull and power amplification with A and B-current supply packs and is operating four

retail stores on the business from these items alone. Transformers for '10 type power tubes and '81 rectifier tubes are the leaders with them.

Along with power amplification is the popularity of speaker kits. One type in particular, that which uses the treated airplane cloth for the diaphragm, is the most popular. Practically every parts store in the Cortlandt Street section is featuring this type of speaker in kit form—retailing from \$4.25 per kit upwards.

The Dynamic Electric Stores and the Thor Radio Company are featuring cone speakers in all shapes and sizes, in complete as well as in kit form and both concerns

report about 30 per cent of their cone speaker sales in kit form, despite the fact that the price of the average assembled cone is only one dollar above the price of the kit.

Kits and miscellaneous parts for the tuning circuits of receiving sets seem to be the next item in importance from the standpoint of sales. There is still a healthy demand for the usual well-known circuits and, in addition, stores, notably Waltham Electric Company's Cortlandt Street branch, are doing a very extensive business in kits featuring the shielded grid tube. Similarly, parts for changing existing sets into shielded grid tube circuits with the attendant accessories are much in demand.

Sales of parts for purely battery sets are dropping off except in the case of shielded grid and short-wave circuits or other complex circuits for which A.C. operation has not been well developed. A.C. operation has taken a strong hold with the parts buyers as in the case of customers for manufactured sets, and with the exception of a few stores, parts for battery sets are rapidly being replaced by parts for A.C. sets.

Parts sales for short-wave sets have not as yet assumed any great proportion, according to "Wireless Egert" and J. H. Bunnell & Co., two concerns which have followed the development of radio since the days when radio was known as wireless, but the demand for short wave material is growing steadily.

These parts are selling
in Cortlandt Street:

- Cone speaker kits*
- Power amplifying transformers*
- B Power transformers*
- Output transformers*
- A.C. set parts*
- Parts for circuits using shielded-grid tubes*
- Short-wave parts*

Dubilier SOCKET POWER Condensers



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

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

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

Write for our special Socket Power Condenser Bulletin



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

DUBILIER CONDENSER CORP.

4377 Bronx Blvd., New York City



Dubilier

LIGHT-SOCKET AERIAL



MANUFACTURERS and MARKETS

*Devoted to the Problems
of the Manufacturer in
the Design and Distribu-
tion of Radio Apparatus*

A Section of Radio Retailing

April, 1928

Six Things to Remember When Buying Resistors

WHEN you are getting ready the parts list for a new set, power supply unit, or power amplifier, don't pass lightly over the fixed resistors. Compared to some of the larger and more pretentious apparatus in the circuit, two or three small resistors may seem relatively unimportant. But they're not!

Remember that in equipment such as an eliminator or power amplifier, the resistors determine in the final analysis the performance of units of this type. A resistor is the gate to control the flow of current. Inaccurate, poorly made resistors mean at best results not as good as those to be had with permanent, well made accurate resistors.

Keep these six points in mind when you purchase fixed resistors. If a resistor meets them all you can be sure of permanent performance.

1. A resistor should be unchanging in value, regardless of temperature or of load imposed on it within its watts dissipation rating.

2. Purchase permanent value. That is, buy a resistor that you know will not depreciate and affect the value of radio apparatus which may represent an investment of hundreds of dollars.

3. Buy an accurate resistor.

4. Look at the joints of the resistor. Oxidization of the resistance wire will occur unless joints are carefully sealed and permanently protected from all atmospheric action.

5. Buy resistors that are free from capacity and inductance characteristics. A resistor should be a resistance, not a condenser or a coil. If it has capacity or inductance, it may affect your circuit.

6. Get resistors which won't crack or deteriorate under long usage.

Fixed resistors are important—and it's no harder to find the type you want that conforms to the requirements above than it is to get one that's half as good.

Save Money by Packing Merchandise Properly

There is a right and a wrong way to pack merchandise. Haphazard methods of choosing containers for your shipments often result in unnecessary waste. Eliminate guesswork from your packing. Whatever the type of container you use in packing your product—whether box, barrel, or bale—there is a right and a wrong way to build it.

Improperly made containers are responsible to a large extent for the enormous

losses paid by transportation agencies in damage claims, estimated to reach fifty million dollars annually.

Largely as a result of a scientific study of export packing initiated by the Department of Commerce, American packing methods for foreign shipments are now recognized abroad for their excellence, although formerly the United States lagged far behind countries abroad in the development of adequate shipping cartons.

DEPARTMENT OF COMMERCE PUBLISHES BULLETINS ON PACKING METHODS

Realizing the necessity of the same scientific approach to domestic packing problems, the Packing Section of the Commerce Department's Transportation Division, with the co-operation of package experts from the industries and transportation agencies, made a careful survey of domestic packing methods. The results of this study are now available in a series of eight bulletins, each devoted to a distinct type of container. The types of container discussed in these bulletins are:

Fiber containers, cleated plywood boxes, wire-bound boxes, cooperage, wooden boxes, nailed wooden crates, and baling.

This entire series of bulletins should be in every shipping room in the United States. The price of the complete series, including a previously issued bulletin on paper-wrapped packages, is 55 cents.

These bulletins are available at any of the branch offices of the Department of Commerce, or they may be obtained directly from the Superintendent of Documents, Washington, D. C. If you have a packing problem of any kind, this series of bulletins should assist you materially in solving it.

Wireless Apparatus Subject to Import Duty in India

A recent notification of the British Indian customs provides that component parts of apparatus for wireless telegraphs are subject to an import duty of 2½ per cent ad valorem when imported into British India under existing regulations, instead of 15 per cent ad valorem as formerly, according to a report from Vice Consul Richard R. Willey, Calcutta, made public by the Department of Commerce.

The duty applies to wireless apparatus parts designed either for transmission or reception, whether by telegraphy or telephony, which are essential for its workings and have been given for that purpose some special shape or quality which would not be essential for their use for any other purpose.

Czechoslovakia Radio Crisis

According to the *Prager Presse* there is a serious crisis in the radio industry in Czechoslovakia. The small dealers are particularly hard hit. Since January 1, 1927, 35,000 people have let their licenses elapse, of whom 10,000 live in Greater Prague. The supply of radio apparatus offered is greater than the demand.

The demand for crystal sets and one-tube sets which formerly constituted 90 per cent of the trade has greatly declined. The explanation offered is that the broadcasting stations do not reach the outlying districts of the republic. This explanation, however, does not appear wholly satisfactory; it does not explain the large decrease in Greater Prague.

Also the Ministry of Commerce has issued a decree regulating the manufacture, sale and keeping of radio equipment, both for wireless telegraphy and wireless telephony. Permission must be obtained from the public authorities before either complete sets or parts may be made, sold or stored.

The decree defines parts as including revolving condensers, self-inductive coils, variometers, detectors, low frequency and high frequency transformers, reinforcers, wave meters, electron lamps of all kinds and complete antennae of all kinds. However, ear pieces and mere crystals may be made, sold or kept without having to obtain permission.

One Broadcaster in Italy

A new radio station which has the broadcasting concession for the whole of Italy has recently been completed not far from Milan, according to the Department of Commerce. The new station has a seven-kilowatt power plant. It will take the place of the one and a half kilowatt station which formerly furnished Italy's radio.

Patent Exchange Plan Is Near Completion

To make available to the public the widest possible use at lowest cost of modern radio and future improvements is the object of a plan for cross-licensing of radio patents now being completed by the Radio Manufacturers' Association. Radio patents will be exchanged and made available equally to all manufacturers joining the RMA patent interchange plan.

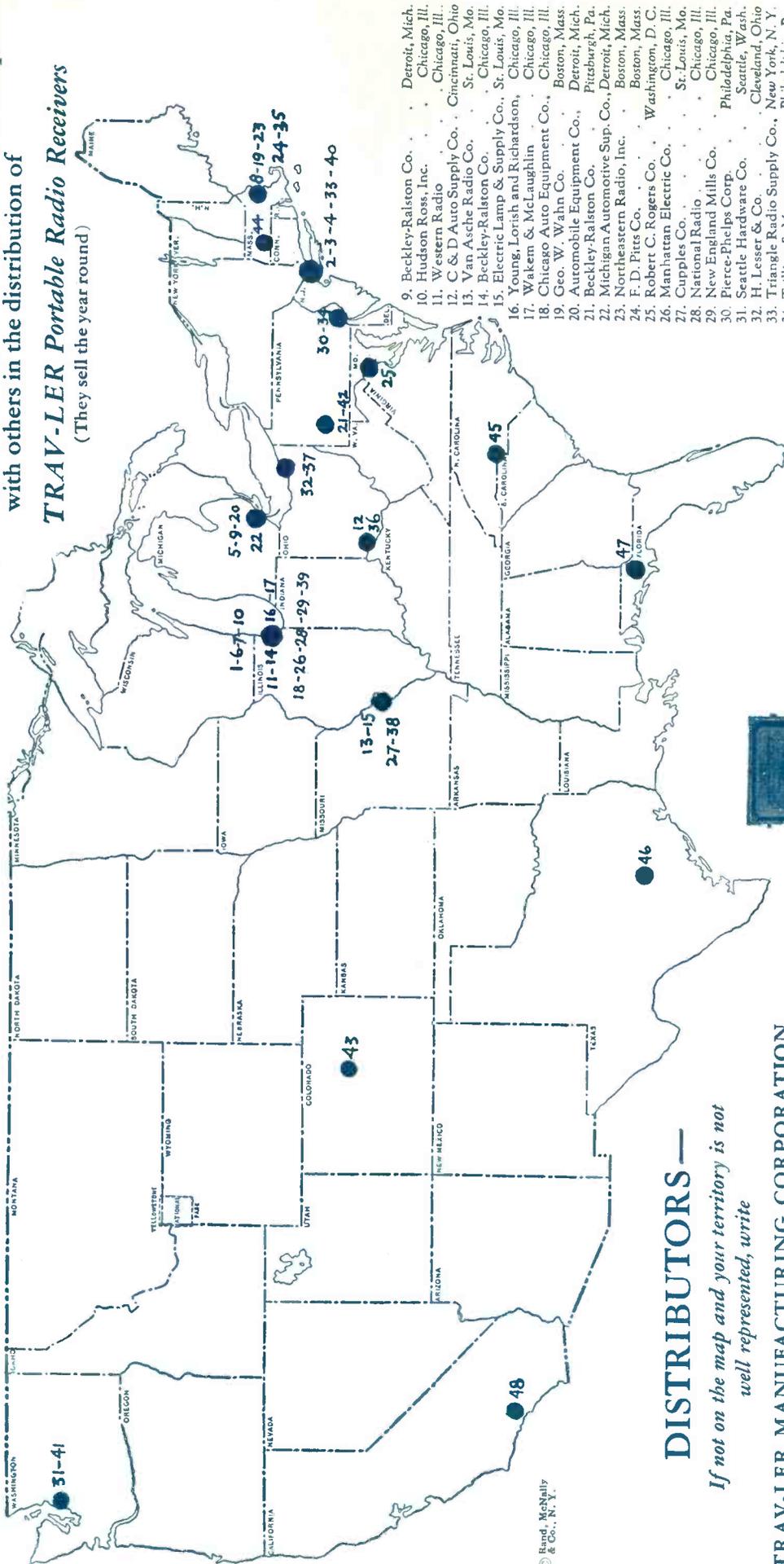
At Buffalo on February 6, the RMA patent interchange draft was perfected by

—ARE YOU ON THE MAP?

—IF SO, note your standing according to number compared with others in the distribution of

TRAV-LER Portable Radio Receivers

(They sell the year round)



© Rand McNally & Co., N.Y.

DISTRIBUTORS —

If not on the map and your territory is not well represented, write

TRAV-LER MANUFACTURING CORPORATION
3401 North Halsted Street, Chicago, Illinois • Manufacturers of



THE "ORIGINAL ONE-MAN PORTABLE RADIO"



LIST ONLY

\$5750

East of Rockies

\$6000

West

DEALERS — write your nearest distributor

1. Lyon & Healy Chicago, Ill.
2. Specialty Service Corp. Brooklyn, N. Y.
3. Auto Hardware Equip. Co. New York, N. Y.
4. Mackenzie Radio Corp. New York, N. Y.
5. Detroit Electric Co. Detroit, Mich.
6. Triangle Electric Co. Chicago, Ill.
7. Telephone Maintenance Co. Chicago, Ill.
8. Milhender Electric Supply Co., Boston, Mass.
9. Beckley-Ralston Co. Detroit, Mich.
10. Hudson Ross, Inc. Chicago, Ill.
11. Western Radio Chicago, Ill.
12. C & D Auto Supply Co. Cincinnati, Ohio
13. Van Asche Radio Co. St. Louis, Mo.
14. Beckley-Ralston Co. Chicago, Ill.
15. Electric Lamp & Supply Co., St. Louis, Mo.
16. Young, Lorish and Richardson, Chicago, Ill.
17. Wakem & McLaughlin Chicago, Ill.
18. Chicago Auto Equipment Co., Chicago, Ill.
19. Geo. W. Wahn Co. Boston, Mass.
20. Automobile Equipment Co., Detroit, Mich.
21. Beckley-Ralston Co., Pittsburgh, Pa.
22. Michigan Automotive Sup. Co., Detroit, Mich.
23. Northeastern Radio, Inc. Boston, Mass.
24. F. D. Pitts Co. Boston, Mass.
25. Robert C. Rogers Co. Washington, D. C.
26. Manhattan Electric Co. Chicago, Ill.
27. Cupples Co. St. Louis, Mo.
28. National Radio Chicago, Ill.
29. New England Mills Co. Chicago, Ill.
30. Pierce-Phelps Corp. Philadelphia, Pa.
31. Seattle Hardware Co. Seattle, Wash.
32. H. Lesser & Co. Cleveland, Ohio
33. Triangle Radio Supply Co., New York, N. Y.
34. Trilling & Montague Philadelphia, Pa.
35. Wetmore-Savage Auto Equip. Co., Boston, Mass.
36. Johnson Electric Supply Co., Cincinnati, Ohio
37. M & M Co. Cleveland, Ohio
38. Jes. C. Gordon Co., Inc. St. Louis, Mo.
39. Moore & Evans Chicago, Ill.
40. R. H. McMann, Inc. New York, N. Y.
41. L. C. Werner Co. Seattle, Wash.
42. O. M. C. Supply Co. Pittsburgh, Pa.
43. Rocky Mountain Radio Co. Denver, Colo.
44. Tarvell-Watters Co. Springfield, Mass.
45. Shaw's, Inc. Charlotte, N. C.
46. The Walter Tips Co. Austin, Texas
47. Nat West Martanna, Fla.
48. Western Radio, Inc. Los Angeles, Calif.

its special patent committee. The successful patent pools of the automotive and aeronautical industries are being followed in part.

Broadening of radio patent cross-licensing to include future developments, such as television, is provided for in the RMA plan. Also it is proposed to include the new devices for reproduction of programs and pictures via electric light and telephone wires. Although it is not probable that television and other developments, now in the experimental stage, will be available soon to the public commercially, the RMA patent pool is being broadened to take in the radio future as five years' trial of the patent cross-license plan is contemplated under the draft, with automatic extension thereafter, if successful.

As now being completed by the RMA Patent Committee, it is believed that the patent cross-licensing system proposed will be acceptable to the necessary majority of eligible manufacturers when it is presented to the RMA membership meeting next June. Immediate complete cross-licensing of all radio manufacturers is not expected to ensue, but gradual growth of the patent interchange operations is the aim of its sponsors.

At the Buffalo meeting of the Patent Committee, presided over by Captain William Sparks of Jackson, Mich., in the absence of A. J. Carter, of Chicago, Committee Chairman; C. C. Hanch of Chicago, author of the automotive patent pool; C. C. Colby of Canton, Mass.; president of the RMA; John W. Van Allen of Buffalo and Frank D. Scott of Washington, RMA counsel, and other association officers participated in drafting the patent interchange plan and also in re-drafting the RMA Constitution and By-Laws to extend the association's activities.

The RMA patent committee will hold another meeting to complete the patent cross-licensing plan and present it to the board of directors next month.

Qualities to Consider in Selecting Men

On the front cover of a recent issue of *Sales Management*, there was featured a picture of W. L. Jacoby, president of the Kellogg Switchboard & Supply Company. In addition, there appeared in the same issue an article reporting an interview with Mr. Jacoby regarding some of the measurements he uses in selecting men for an organization. The title of the article is "Four Qualities to Consider in Selecting Men." The four qualities named by Mr. Jacoby as essential characteristics in the men he hires are: co-operation, character, aggressiveness and diplomacy.

Speaking of co-operation, Mr. Jacoby points out that a spirit of harmony and helpfulness between members of an organization is of more importance than individual brilliance. He says that in selecting men he desires, first of all, men who regard the progress of the business as a whole above personal gain or honor; men who "mesh in" with the head of the company, with other department heads and with the members of their own departments. He names two or three interesting incidents to prove that co-operation is of greater importance than individual brilliance.

Mr. Jacoby also emphasizes the importance of good character in the men he selects for positions in his organization. "Without character," he says, "other qualities are of little value. The character-

less individual invariably proves himself unworthy of trust."

The third requirement Mr. Jacoby demands of a co-worker is force. He says, however, that there are two kinds of force, one is a sort misdirected aggressiveness which antagonizes everyone coming in contact with it, the other is the kind of force that gets things done but does not offend.

The fourth characteristic that Mr. Jacoby demands of his associates is diplomacy. It links up, he says, with force. Force, without diplomacy, may get things done, but the use of undiplomatic force tends to rub people the wrong way. The man who is so forceful that he arouses resentment does not accomplish his purpose so effectively as the fellow who is aggressive but at the same time politic. Throughout the article, Mr. Jacoby uses various interesting incidents from his own career to prove his points.

Boosting the Sales Curve

The radio trade which has been watching the results of the "Radio's richest season" advertising campaign now being run by the Sparks-Withington Company will be interested in the following data made public last month regarding the sale of Sparton instruments. Sparton newspaper advertising, starting in January, was built around the theme that "January, February, March and April are radio's richest months." The theme has been followed consistently. Weekly ads, usually 600 lines, were run in approximately 100 metropolitan dailies. The aim was to help extend the radio season as far as possible beyond the usual "falling off" in January.

Results are reported as follows: In contrast to the general tendency in radio sales at this season of the year, in March, Sparton deliveries were approximately 75 per cent those of December, and 60 per cent those of November. This shows a remarkable sales activity during the early spring months. Two dealers report that their January sales were double their December sales. One dealer reports January as his best month in two years. The gratifying results form an excellent example of what can be accomplished with a real sales idea, backed by genuine dealer co-operation.

Radio Railroad Rates

A movement to reduce the delivery cost of radio products was initiated at New York by the Radio Manufacturers Association through its traffic committee of which Captain William Sparks, of Jackson, Michigan is chairman. After conferences in New York with RMA directors and officers and also traffic experts of RMA members, Captain Sparks headed a delegation which appeared before the Consolidated Classification Committee and inaugurated the effort to secure fair and lower railroad rates for radio receiving sets, accessories and parts.

The classification committee indicated its agreement with the RMA delegation on the latter's plea to reduce the minimum carload weight required under the tariff for radio cabinets and receiving sets. The present carload minimum of 20,000 pounds cannot be loaded by radio manufacturers except in rare instances. The average carload is from 12,000 to 18,000 pounds, and the RMA delegation's request for a minimum of 16,000 pounds appeared to be favorably received. In addition to Chairman Sparks of the traffic committee, those participating in the rate reduction conferences

at New York include Morris Metcalf of Springfield, Mass., J. J. Lynch of Jackson, Mich., Bond P. Geddes, executive vice-president of the RMA., G. W. Knight, John F. Moriarity, W. F. Lowman, F. S. Ottenheim, and W. F. Rogers, of New York.

What the World Wants

Listed below are some specific inquiries for American goods received in the Department of Commerce, at Washington, D. C. To obtain confidential information, it is necessary only for American exporters to apply to the nearest office of the Bureau or at Washington, giving the number or numbers of the inquiry or inquiries in which they are interested. An asterisk (*) indicates that the inquirer would act as both purchaser and agent.

ITALY — *29925. Aluminum, brass, bronze, and copper.

30132. Radio sets.

*29925. Insulators, high voltage; radio telegraph and telephone apparatus; and wiring supplies.

Canada to Have New Broadcasting Station

A new broadcasting station is planned at Hamilton, Ontario, Can., by the Maple Leaf Radio Co., Ltd., organized recently for that purpose. The project is reported supported by Hamilton radio dealers and other firms who wish to advertise their products by radio. The wave length of the new station will be 340.7 meters and the call letters CHML.

Number of Radio Receiving Sets in Peru

Peruvian law requires radio receiving sets to be licensed. Recent inquiry discloses the fact that there are now slightly less than 550 licenses issued, though the number of sets actually in use is probably somewhat larger than this figure.

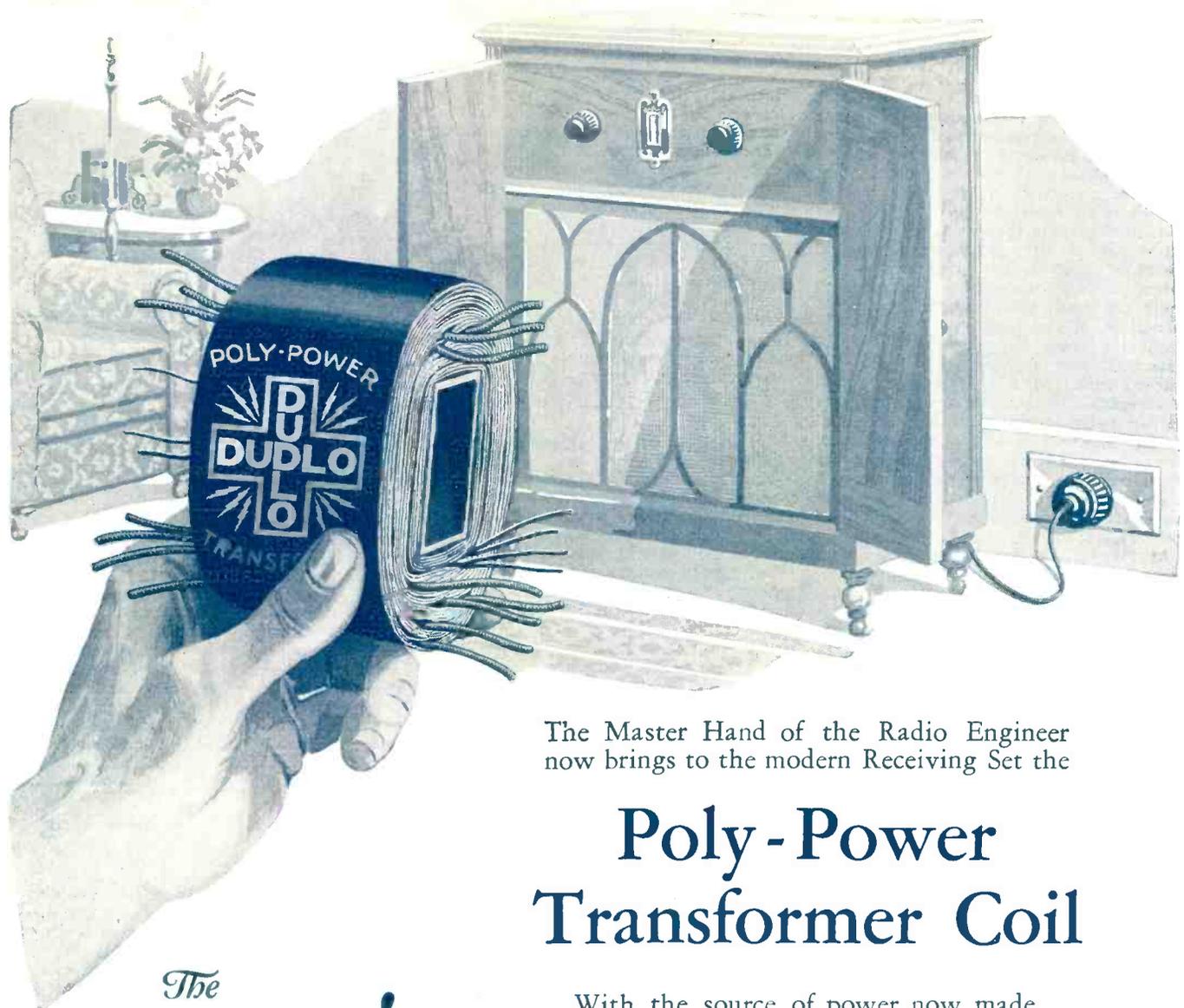
Market for Radio Apparatus in Denmark

A report on the radio market in Denmark together with several catalogs and other material has been received from Assistant Trade Commissioner Harold Nelson, Jr., Copenhagen, Denmark. This report is available for loan to interested American firms or individuals, upon request to the Electrical Equipment Division, Dept. of Commerce, referring to No. EE-1056.

Strength of Radio Signals Recorded Automatically by Bureau of Standards

It is now possible to record the signal strength of a number of low-frequency transmitting stations sending ordinary traffic, through periods of 24 hours, without the presence of an observer, according to Mr. E. B. Judson of the Laboratory for special Radio Transmission Research of the Bureau of Standards.

The receiving set used by Mr. Judson is an ordinary autodyne type with inductively coupled antenna and secondary. Only audio-frequency amplification is used, as



The Master Hand of the Radio Engineer
now brings to the modern Receiving Set the

Poly-Power Transformer Coil

*The
Coil's the thing!*

*that makes the "Light
Socket" set possible.*

Dudlo Poly-Power Transformer Coils can be wound and tapped to furnish A, B, and C currents at any specified voltages required by Radio receivers or power units.

Dudlo engineers are at the service of Radio Manufacturers to assist in designing a Poly-Power coil to meet their special needs.

With the source of power now made as convenient and reliable as electric lights, a great new market is opened up.

Thousands of folks who never before thought they could operate a Radio can now enjoy the wonderful programs without worry about the A, B, or C current supplies.

So again Dudlo meets the needs of the Radio manufacturer by preparing far in advance for volume production of these, the most intricate of all Radio coils. Special machinery has been designed and installed in anticipation of the greatest season the industry has ever known.

DUDLO

DUDLO MANUFACTURING COMPANY : FORT WAYNE, INDIANA

Division of THE GENERAL CABLE CORPORATION

160 NORTH LA SALLE STREET
CHICAGO, ILL.

56 EARL STREET
NEWARK, N. J.

4153 BINGHAM AVE.
ST. LOUIS, MO.

274 BRANNAN ST.
SAN FRANCISCO, CALIFORNIA

difficulties were found in keeping radio amplification sufficiently constant. The calibration can be checked at any time by comparison with the observations of the telephone comparator.

The recording is done on a Cambridge-Paul recorder which is connected in series with a two-electrode rectifier in a circuit coupled by an audio transformer to the plate circuit of the last amplifier tube. The records are made by depressing the galvanometer needle of the recorder by clockwork once every thirty seconds. This forces an inked thread into contact with the paper on the rotating recorder drum, thus making the record. The tubes are turned on and the antenna and secondary tuning changed for the different stations to be measured by a number of relays controlled by a master clock relay which permits any number of stations up to twelve to be tuned in for five minutes each during the hour.

The new recorder has already furnished much interesting information regarding diurnal variations in signal strength and their changes with the changing seasons of the year.

New Broadcasting Station Makes Radio Popular in Tientsin, China

Increased interest in radio broadcasting has been manifested in Tientsin, China, as a result of the recent opening of Station XOL in that city, a report from Vice Consul Angus I. Ward, made public by the Department of Commerce, discloses. The broadcasting station is owned by the Chinese Government Radio Administration at Tientsin. The power of the station is 500 watts, with a wave length of 480 meters. The hours of broadcasting are from 8:30 p.m. to 12:30 a.m. daily. The only other broadcasting station at Tientsin is operated by the Gisho Electric Company, a Japanese firm dealing in electrical equipment, the programs of which are confined to phonograph music. The Gisho Company's station, GEO, is of 50 watts and operated on a wave length of 280 meters.

The importation of radio receiving equipment has been placed in the hands of four licensed importing firms—one American, one French, one German and one Japanese. Each of the licensed importers must post a deposit of U. S. \$540, in cash or in bonds of the Chinese Government Telephone Administration, and must pay a yearly license fee of U. S. \$10. The import duty on radio receiving sets or parts is 5 per cent ad valorem, to which there must be added a provincial surtax of 2½ per cent ad valorem. At the end of May, 1927, there were 110 licensed tube sets in Tientsin, but no licensed crystal sets. The officials of the Chinese Government Radio Administration estimate that there are approximately 100 unlicensed sets in operation.

Denmark Reduces License Fees

Since the reduction in the license fees for radio receiving sets from 15 to 10 crowns, (crown worth approximately 26¢ in U. S. currency) the number of listeners in Denmark has increased about 15,000 and there are at present in the neighborhood of 165,000 receiving sets in operation in that country, according to a report received in the Electrical Division of the Department of Commerce. The fee for tube sets is now the same as that for crystal

sets, that is, 10 crowns. The opening of the new station at Kallundborg has also contributed towards the increased number of listeners-in, the report states.

Bureau of Standards Provides Precise Electrical Measurements

The method used by the Bureau of Standards in measuring capacitance and in setting up its standard condensers is described in a new scientific paper.

The Bureau of Standards cannot get its standards of capacitance from some other place; it must establish them. Moreover, they must conform with the other electrical units. The necessary measurements to establish these standards with sufficient accuracy to meet the demands of the present day require careful preparation and skillful execution. As a result of work just completed, these standards are known with considerably greater certainty than heretofore. The work is fully described in Scientific Paper No. 564 which may be bought from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 15 cents per copy.

New Radio Patents Feb. 21-Mar. 21, 1928

DESIGNS

- 74,484. Radio antenna. Charles Eisel, Edgewater, and William H. Marshall, Denver, Colo. Said Eisel, assignor to said Marshall.
74,528. Radio Phone Holder or Similar Article. Frederick C. Wilcox, Keene, N. H.

PATENTS

- 1,659,570. Transmission of Pictures by Electricity. Herbert E. Ives, Montclair, N. J. Assor. to Western Electric Co., Inc., New York, N. Y.
1,659,636. Device for Amplifying Voltage and Current. Fay Edison Null, Urbana, Ill.
1,659,646. Circuit-Testing Device. Fred R. Weiss, Chicago, Ill. Assor. to Universal Test Equipment Co., Chicago, Ill.
1,659,732. Mounting for Crystal Detectors. Henry J. Guth, Golden, Colo.
1,659,736. Radio Vision Illumination. Charles Francis Jenkins, Washington, D. C.
1,659,755. Condenser Attachment. George E. Whiting, Brooklyn, N. Y.
1,659,861. Aerial Apparatus. William Dionne, Chicago, Ill.
1,659,933. Loud Speaker. Raymond L. Wegel, New York, N. Y. Assor. to Western Electric Co., Inc., New York, N. Y.
1,660,025. Vacuum Tube. Arthur H. Allen, Jr., Philadelphia, Pa.
1,660,108. Radio Apparatus. Nicholas J. Vignolo, Alameda, Calif.
1,660,122. Multifilament Vacuum Tube. Julius Greger, Chicago, Ill.
1,660,132. Condenser. Robert P. Leopold, Philadelphia, Pa. Assor. to Wirt Co., Philadelphia, Pa.
1,660,153. Mount for Electron-Emission Devices and Methods of Making. Daniel Douglas Demarest, Montclair, N. J. Assor. to Westinghouse Lamp Co.
1,660,251. Variable Resistance. William Lee Burnam, Kansas City, Mo.
1,660,278. Control Device for Radio Sets. Edward P. Schwarze, Jr., Astoria, N. Y.

DESIGNS

- 74,551. Radio Cabinet. Edward J. Buller, Monroe, Wash.
74,586. Radio Cabinet or Similar Article. Morris Stettner, New York, N. Y.

PATENTS

- 1,660,321. Electrical Sound-Producing Apparatus. Theodore Bodde, Lewiston, N. Y.
1,660,368. Operator for Tuning Units of Radio Apparatus. Dorsey F. Asbury, Washington, D. C.
1,660,389. System of Synchronizing Signaling Apparatus. Andrew L. Matte, Summit, N. J. Assor. to American Telephone and Telegraph Co.

- 1,660,423. Radio Tuning Dial and Means of Mounting the Same. Benjamin P. McKinley, New York, N. Y. Assor. to Hemco Electric Manufacturing Co., Inc., Long Island City, N. Y.
1,660,711. Synchronism in Radio Movies. Charles Francis Jenkins, Washington, D. C.
1,660,803. Wireless Receiving Apparatus. Aristote Mavrogenin, Milwaukee, Wis.
1,660,879. Rheostat. Daniel E. Moore, Chicago, Ill. Assor. to Central Radio Laboratories.
1,660,886. Signaling System. Karl C. Randall, Edgewood, Pa. Assor. to Westinghouse Electric and Manufacturing Co.
1,660,990. Sound-Responsive Device. Harold F. Dodge, New York, N. Y. Assor. to Western Electric Company, Inc., New York, N. Y.
1,660,996. Combined Radio Loud Speaker and Phonograph. Newman Henry Holland, East Orange, N. J. Assor. to Bell Telephone Laboratories, Inc., New York, N. Y.
1,661,058. Method of and Apparatus for the Generation of Sounds. Leo Sergejewitsch Theremin, Leningrad, Russia. Assor. to the Firm M. J. Goldberg and Sohne G.m.b.H., Berlin, Germany.
1,661,109. Transmitter for Electrical Control Systems of the Selective Type. Richard C. Coupland, U. S. Army, Dayton, Ohio.

DESIGNS

- 74,613. Radio console. George W. Lyons, Oak Park, Ill.
74,614. Radio Console. George W. Lyons, Oak Park, Ill.
74,615. Sound-Reproducing Apparatus. George W. Lyons, Oak Park, Ill.

PATENTS

- 74,613. Radio Console. George W. Lyons, net, Baltimore, Md.
1,661,167. System of Picture Transmission. Alva B. Clark, Brooklyn, and Danforth K. Gannett, Jackson Heights, N. Y. Assor. to American Telephone and Telegraph Co.
1,661,261. Signal-Receiving System. Paul B. Murphy, Nyack, N. Y. Assor. by mesne assgts. to Western Electric Co., Inc.
1,661,351. Electrical Condenser. Harry R. Van Deventer, New York, N. Y. Assor. to Dubilier Condenser Corp., New York, N. Y.
1,661,410. Logging and Indicating Device for Radio Tuning Instruments. James P. Coughlin, Kansas City, Mo.
1,661,456. Radio Log. Harry D. Bartlett, Delavan, Wis.
1,661,541. Loud Speaker. Ulrus H. McNeill and Francis G. Pearce, Woods Cross, Utah.
1,661,698. Electron-Tube Circuits. John L. Ludlow, Maplewood, N. J.
1,661,744. Method and Arrangement for Transferring Signals Between Moving Vehicles and Roadbeds. Walter Wurst, Berlin, Germany. Assor. to Gesellschaft für Drahtlose Telegraphie m.b.H., Berlin, Germany.
1,661,771. Antenna. Vincent J. Redmond, New York, N. Y.
1,661,793. Sound Recording and Reproducing. Lloyd Espenschied, Kew Gardens, N. Y.
1,662,032. Filament Support for Vacuum Tubes. Dudley A. Mullaney, Schenectady, N. Y. Assor. to General Electric Co.

DESIGNS

- 74,646. Sound-Amplifier Casing. James S. Bach, Toronto, Ontario, Canada.
74,703. Loud Speaker. Louis Steinberger, Brooklyn, N. Y.

PATENTS

- 1,662,081. High-Frequency Modulating System. Harold C. Silent, Brooklyn, N. Y. Assor. to American Telephone and Telegraph Co.
1,662,126. Duplex Radio Signaling Set. Ralph K. Potter, New York, N. Y. Assor. to American Telephone and Telegraph Co.
1,662,132. Inductance Apparatus. Bert Joseph Simmons, Stillwater, Minn.
1,662,135. Sound-Reproducing Means. George W. Smith Jr., Riverton, N. J. Assor. to Victor Talking Machine Co.
1,662,459. Wireless Signaling. Charles Samuel Franklin, Buckhurst Hill and Peter Pendleton Eckersley, Witham, England. Assors. to Radio Corp. of America.
1,662,505. Variable Condenser. Giovanni Lombardi, Derby, Conn.
1,662,510. Controlled Grid Leak. Abraham Press, Wilkinsburg, Pa. Assor. to Westinghouse Electric & Manufacturing Co.
1,662,548. Testing Device. Harry R. Van Deventer, New York, N. Y. Assor. to Dubilier Condenser Corp.
1,662,742. Loud Speaker. Jack A. Glassman, Chicago, Ill.

Announcing the formation of the General Transformer Corporation

MANUFACTURING all types of low voltage transformers and specializing on Transformers, Chokes and Power Packs for Radio Power Supply Units, and Audio Frequency Transformers.

Our Radio engineering experience, complete up-to-date equipment, capable workmen, proper supervision, together with the most modern testing facilities guarantees you a quality of product **SECOND TO NONE**.

This organization is geared up to give "On Time Service In Quantities"—products that are **TESTED** and **RETESTED** before shipment is made.

*A Test Will Tell the Story.
Write for samples at once.*



The result of your tests, plus our prices will interest all Radio Set Manufacturers who are sincerely interested in building wider distribution for their sets.

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Check Your Condensers

Sprague Hi-volt Midgets meet every requirement in A. C. set construction. Small, compact and dependable, they are safe for continuous A. C. operation up to 550 volts, 60 cycles, and up to 750 volts D. C.

Waterproofed with asphalt covering and special process of triple impregnation. Capacities from .00007 to .1 MFD, in new direct-to-panel eyeletting model.

SPRAGUE SPECIALTIES COMPANY
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SPRAGUE

Wound Condensers

By-Pass—Buffer—Filter

Working Voltages 200 to 1200 D.C.

Special Blocks for A.C. sets and Power Packs. Highest electrical properties and permanence based on **Life Tests**. Information and prices on request.

Manufacturers are invited to visit our plant for inspection of our production and testing equipment.

Special Life Test Laboratory.

RADIO APPLIANCE CORPORATION
SPRINGFIELD, MASS.

Lightning

Lightning months are coming and cautious set owners will demand good lightning protection for their radio sets. The Jewell Lightning Arrester is conveniently priced, compact and easy to install. It is suitable for either indoor or outdoor installation and is the best available protection against lightning, as it is listed and regularly tested by Underwriters' Laboratories. Make sure that you have a stock of Jewell Arresters on hand when the demand begins.

Jewell Electrical Instrument Co.
1650 Walnut St., Chicago
"28 Years Making Good Instruments"

How Radio Saved a Piano Business

(Continued from page 45)

structions. If he is not sold don't give him a chance to turn you down. That also is a page from the old piano man's note book.

Here's the last point: Find out how much he, she, or they intend to spend—then concentrate on items ten per cent higher. Why? Because 99 out of 100 members of this great American public of ours will *always* pay at least one-tenth more for a thing than was originally planned—and I believe that there is no harm in increasing one's gross ten per cent or in selling quality goods. You'll be thanked for it in the long run.

It is no secret that radio was the salvation of our business. A major portion of last year's total gross sales was done in the radio department, and at a net profit of a little over six and one half per cent. I credit adaptation of tried methods for much of this net showing as well as for the important part it played in building volume.

Trends in Radio Design

(Continued from page 43)

own, it reproduces all frequencies with equal clarity.

Requiring direct current to actuate it, this speaker includes a rectifier and power amplifier which may also be used to supply B current and added volume for the receiver to which it is attached. With these units incorporated this speaker is appreciably higher in price than ordinary speakers, but the perfection of its tone quality will undoubtedly create a demand for it from those of your customers to whom perfection of results means more than price.

A.C. tubes are of course the last word in the elimination of the A battery and in fulfilling the public demand for a completely electrically-operated receiver. Dealers will, however, aid themselves greatly if they will check up the line voltage with an A.C. voltmeter before installing an A.C. set in a customer's home. Certain sets have switches and other means of compensating for the various line voltages found in different localities.

THE SHIELDED GRID TUBE

THEN there are the shielded grid tubes about which there has been much discussion, but up to the present no manufacturer has brought out a commercial receiver using this tube exclusively. It is almost a foregone conclusion, however, that one or more sets using this tube will appear on the market before next season. The amplification of the shielded grid tube is much higher than that of the ordinary type of receiving tube, which results in a fewer number of the shielded grid tubes being required to produce a given volume. It is entirely feasible that this tube, which is at present a battery-operated tube, will soon be designed for A.C. operation. But whether this will be accomplished in time to make this tube an important factor in next season's marketing plans appears doubtful at this time.

An unusual development in tuning is now being perfected, which will radically change the panel appearance of those sets which will use it. This is the system of tuning stations by means of push buttons or levers rather than by turning a dial. This new tuning device consists of a certain number of such push buttons or levers which are each pre-tuned to a certain wavelength. When it is desired to tune in a station it is only necessary to push

the button which has been adjusted to its wavelength and the station is brought in automatically. The number of stations which may thus be pre-tuned is determined by the number of push buttons on the panel. A feature is also included which releases the push buttons and permits free tuning. Several manufacturers are planning to have receivers using this type of tuning ready for next season's market.

Also, if present indications are to be believed, several prominent radio manufacturers will market new radio-phonograph combinations for the coming season. These will include an A.C. radio receiving set and the latest type of electric phonograph pick-up using the same speaker and audio amplifier, and with the phonograph turntable also being operated by electricity. Thus the best of the phonograph industry together with the best of the radio industry will be combined in one cabinet for the greater convenience and satisfaction of your customers. This combination machine will undoubtedly appear in greater numbers than ever before and will be marketed by radio manufacturers who heretofore have never made phonograph products.

The radio trade, keeping the foregoing trends in mind, can confidently expect enough new developments between now and next fall to keep the public interest in radio, and therefore radio sales, at satisfactory levels.

Preserve That Buying Mood

(Continued from page 55)

store. Always address each other by using the prefix "Mister," no matter how intimate you may be outside the store.

10. Listen for the telephones in both departments. When a telephone rings, answer it immediately. Do not disregard the ringing of a telephone, simply because you do not happen to be near it. Make sure the party on the other end of the line *hears* the smile in your voice. Much business and good-will can be lost through improperly answering the phone; be just as pleasant and courteous as though you were face to face with the speaker.

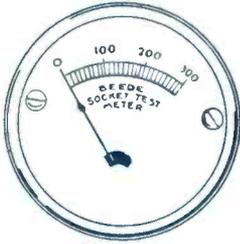
11. Always stand at least two feet away when conversing with a visitor.

12. Be sure that you know all the prices, both stripped and equipped. Let there be no information of this kind that you must seek from someone else.

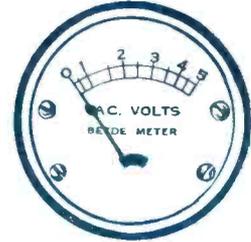
13. Pay particular attention to your appearance. See that you are clean shaven; be sure your hair is neatly combed; your shoes shined; and your clothes pressed and spotless. A starched, white collar always helps.

14. Above all, be a gentleman throughout the day. If you are tired, do not let the customer know it. Show him what he wants to see. Never try to oversell him. Never try to force a sale. Never show disappointment. Never show scorn at a small purchase. Never be impatient with a deliberating customer. Never consider anything too much trouble when serving a prospect. Never knock our competitors. If we do our part, the visitor will discover the difference.

These New BEEDE Socket Test Meters! for Tests Where Tests Should Be Made!



Set owners everywhere are ready to buy these new BEEDE innovations that indicate instantly and accurately how much power is being delivered to each tube. They also show immediately if there is any power loss due to open circuit or deterioration of tubes and reveal sources of interference that would otherwise take hours to discover. BEEDE has produced these Socket Testers in answer to a universal need. Call up your jobber at once and order as many as you can use.



For "B" Power

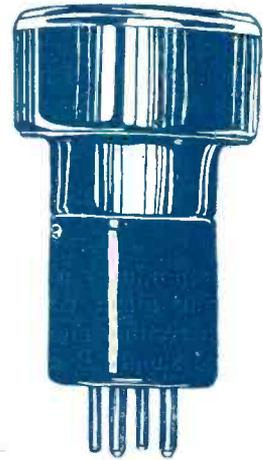
This BEEDE Socket Test Meter can be used on all types of receivers, including those electrically operated. Takes the same amount of current as the tube.

List \$3.00

For AC Tubes

A.C. tubes are critical—they must take just so much voltage—no more, no less if perfect results are to be obtained. This BEEDE A. C. Tube Socket Tester fills the need for a meter to test A. C. power where it should be tested.

List \$2.50



Comes with four prongs to test all R. F. and A. F. tubes. Special five-prong adapter for A. C. Detector tubes, \$1.00

BEEDE ELECTRICAL INSTRUMENT CO.
136 LIBERTY ST., NEW YORK

BEEDE METERS

THERE'S A BEEDE METER FOR EVERY RADIO NEED

YOUR JOBBER CAN SUPPLY ANY BEEDE METER

FROST-RADIO ACCESSORIES

That Delight Every User

These and other finely made accessories in the Frost-Radio line are eagerly sought by all classes of radio listeners. The nationwide reputation of Frost-Radio has won a million users for these items, and the high quality of our products insures satisfaction with every sale you make.



FROST-JAC-BOX

One of our most popular accessories. Use it for increasing the jack capacity of any set. Complete with cord and plug, list, \$2.50. You can sell a lot of these when you display them in your store.



FROST-FONES

\$3.00 \$3.50
\$6.00

The best-selling head fones made. Every DX hunter needs a pair. Aluminum shell or Bakelite shell type. Order today.



FROST-ADAPTERS

Genuine Bakelite No. 611, list, 60c. changes UV199-C299 to UV base. No. 540 changes UX199-CX299 to UV base. List, 25c.

HERBERT H. FROST, INC.
Main Offices and Factory, ELKHART, IND.

HERBERT H. FROST, INC., ELKHART, IND.

Tell me more about your accessories, including Frost-Fones, Frost-Jac-Boxes and Frost-Adapters, as advertised in *Radio Retailing*, April.

Name

Address

City

State

CONDENSERS

for the Manufacturer

WE ARE equipped to produce in quantities, any type of paper condenser or any combination of capacities, for any working voltage up to 1,250 volts D.C.

We will be pleased to quote prices upon receipt of blue prints of your requirements.



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CLIP TIME OFF WIRING JOBS

BY USING



Approved by the Underwriter Lab.
Cartons of 100 — Standard Package 1000



An Insulating Cap with a split screw that bites twisted wire ends.

For Free Working Samples Sign Below and Mail

Name

Address

COLT'S PAT. FIRE ARMS MFG. CO., HARTFORD, CONN.

T-C-A FILAMENT SUPPLY TRANSFORMERS



List Price
\$7.50

The Transformer Corporation of America, specialists in transformer design, has developed filament transformers for all types of A.C. tubes. It is possible to convert any battery operated set into an A.C. set; securing the filament supply directly from the 110 volt 60 cycle alternating current supplied to your home.

T-C-A No. 687 transformer is capable of handling 4 to 6 UX 226 tubes, 1 to 2 UX 227 tubes, 1 to 2 UX 171 tubes, without overload or hum. Both 5 volt and 2.25 volt windings are center tapped, eliminating the necessity of expensive resistors. This transformer when used in conjunction with a reliable harness makes an ideal combination for A.C. operation.

Size 3½-in. W. 3¾ H. 4¾ L.
Weight 5½ lbs.
Finish—Black Crystalline.
Complete with cord and plug, as above.

\$7.50

T-C-A No. 688 is capable of handling with ease 3 or 4 UX 226 tubes, 1 UX 227 tube, 1 UX 171 tube. This unit makes an unusually economical transformer for the A.C. conversion of a 5 or 6 tube set.

Size 3¾ L. 2¾ W. 3 1/16 H.
Weight 5¼ lbs.
Finish—Black Lacquer.
List price complete with cord and plug

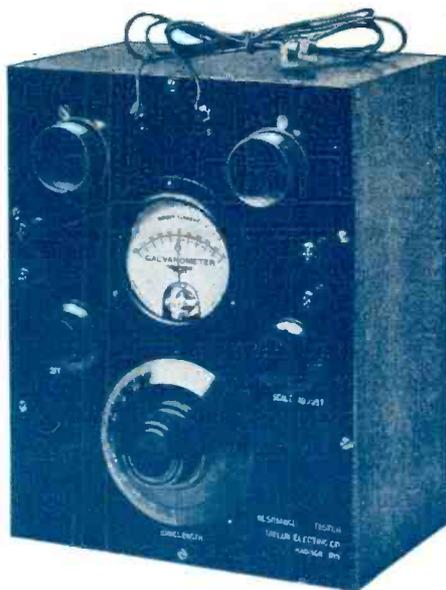
\$4.50

Jobbers and Dealers Write to Us for Descriptive Literature

Manufacturers: Send us your specifications on power packs, audio transformers and chokes. We will gladly furnish samples together with quotations on your season's requirements.

**The Transformer Corporation
of America**

1430 Orleans Street, Chicago, Illinois



To sell or
to Service
**One Dial
Sets**
You Need a
**Resonance
Tester**

Selectivity and
Volume cannot
be obtained
with One Dial
Sets unless the
Tuned Circuits
are in
Resonance.

EXPERIENCE has shown that practically all One Dial sets have one or more condensers out of alignment. This broadens the tuning and impairs the volume. With this Resonance Tester you can "line up" the condensers, extremely close and accurately. Sold through Radio Jobbers. Dealers net, \$32.50.

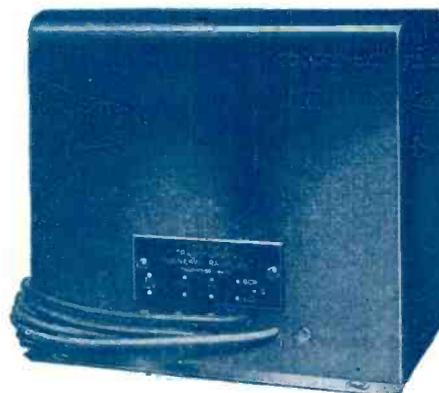
Write for Folder today.

TAYLOR ELECTRIC CO., Madison, Wis.

DEALERS!

A GROUP ADDRESS SYSTEM FOR DEMONSTRATIONS

Can be easily constructed with the new General Radio parts designed especially for the UX 250 Power Amplifier Tube. Quality and volume are unexcelled. Folders describing complete amplifier units and component apparatus will be sent on request.



TYPE 565-B TRANSFORMER

Rated at 200 watts, Primary designed for 105-120 volt 60 cycle A.C. High voltage secondary of 1200 volts with center tap. Two low voltage secondaries of 7.5 volts each for filaments of rectifier and power amplifier tubes.

Price.....\$20.00

GENERAL RADIO CO.

30 STATE ST., CAMBRIDGE, MASS.
274 BRANNAN ST., SAN FRANCISCO, CALIF.



Busy Clerks mean Busy Cash Registers

YOU are always trying to sell people the music in the air, yet, you know downright well the music sweetest to your ear is the ring of the cash register checking up another sale and the scurry of your clerk's feet as he hurries to wait on the next customer.

The busier your clerks are kept, the more merrily the cash register rings. The best way to keep your clerks active making sales is to keep yourself and them absolutely up-to-date on everything in the radio line—and that is why you should subscribe for

RADIO RETAILING

Every month it brings you the up-to-the-minute authentic information from the nation-wide radio market. Our editors covering all parts of the country bring to you all the most effective sales campaigns and cost saving plans, etc., used by both leading and smaller dealers.

Get Radio Retailing. Keep it for your clerks to read or even better, subscribe for individual copies for each man or woman on your sales force.

It will pay you to do this for this big magazine on yearly subscription costs less per month than you pay for a cigar. \$1 per year—less than 9c per month. Send the attached coupon now—and you will get May's issue which the editor has hinted will contain something of extraordinary interest.

Clip here

This space is the exact size of a one-dollar bill.

Get one and try it

then

—pin it on

—stick it on

—or send it loose with the coupon

to

Radio Retailing
Tenth Ave. at 36th St.
New York, N. Y.

4 Sp.



Name

Street

City

State

Name of Company

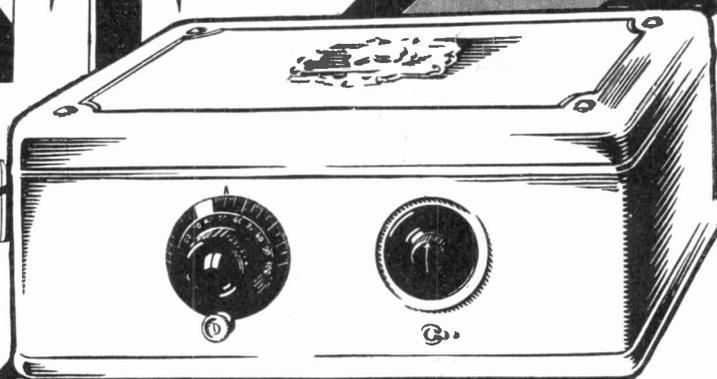
Besides Radio We Sell

For the dollar bill attached I want to subscribe to Radio Retailing for one year starting with the next issue.

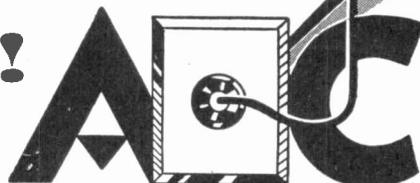
This Special Offer is for cash with order only

ATWATER KENT RADIOS

modern!



**What a year
for
radio!**



Model 37

Six-tube, FULL-VISION Dial, self-contained A. C. set. For use with 110-115 volt, 60-cycle, Alternating Current. Uses six A. C. amplifying tubes, and one rectifying tube.

\$88
without tubes

THE Democratic national convention of 1924 with its "Twenty-four votes for Underwood," drew literally millions of new listeners.

Now it's Presidential year again. Both parties are planning a nation-wide radio campaign.

The Dempsey-Tunney fight last year was another great sales booster. Tunney is signed to fight twice this year.

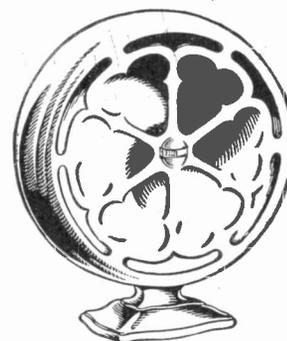
There will be more high-spot events on the air this spring and summer than ever before—events for which everybody will have to have a good radio set.

And there are more high-spot events on the air right now than ever before—millions of dollars' worth of programs pour into the microphones of hundreds of stations—a continuous performance open to anyone who tunes in, and getting better all the time.

And here is the new Atwater Kent A. C. set—tomorrow's radio, already satisfying owners in more than *100,000 homes. Your prospects have *got* to have it when summer comes. Why shouldn't they get it *now* and include the spring programs in their investment?

A sales point which no good dealer will overlook.

* This is in addition to the 1,400,000 Atwater Kent sets sold previous to the announcement of the new A. C. model.



Model E Radio Speaker \$24

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

Atwater Kent Radio Hour every Sunday night on 23 associated stations

ONE Dial Receivers licensed under U.S. Patent 1,014,002
Prices slightly higher West of the Rockies

ATWATER KENT MFG. COMPANY
A. Atwater Kent, President

4733 Wissahickon Ave., Philadelphia, Pa.



Model 60
List \$50
 Including Speaker
 Top 29 in. x 12 in.
 30 in. High

Also Model 60A
 For Zenith and Kolster Sets
 Atwater Kent and Crosley
 Top 29 in. x 14 in.
 30 in. High
 Design Patented

Stenola
 SUPREME IN TONE

You can sell this table, too, *instead of just a speaker*

The Stenola Table for the Radiola 17 combines beauty and practicability into one—a handsome radio table equipped with a Model 100A R.C.A. Speaker.

Finished in mahogany to exactly match the design and finish of the fast selling Radiola model.

One of the outstanding radio equipment features of the year. You can sell a Stenola with every Radiola 17.

Send for our catalog and discounts.

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Tower Adventurer
 RADIO CONE SPEAKER

East \$11.95
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Unlike all others
 Its beauty of design is known. Its quality of reproduction is supreme. Such a value at such a price has never been equalled before!

TOWER MFG. CORPORATION
 122 Brookline Ave.,
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Hold off
 till you have heard the
 New **JEILKAY**
 SENIOR and JUNIOR ELECTRIC
 RADIO RECEIVERS

FOUR GREAT ELECTRIC SETS

- Senior Electric
- Senior De Luxe
- Junior "Seven," Outside Pack
- Junior "Seven" Compact

Write for franchise and full particulars to—

THE LANGBEIN-KAUFMAN RADIO CO., Dept. M.
 62 Franklin St., New Haven, Conn.

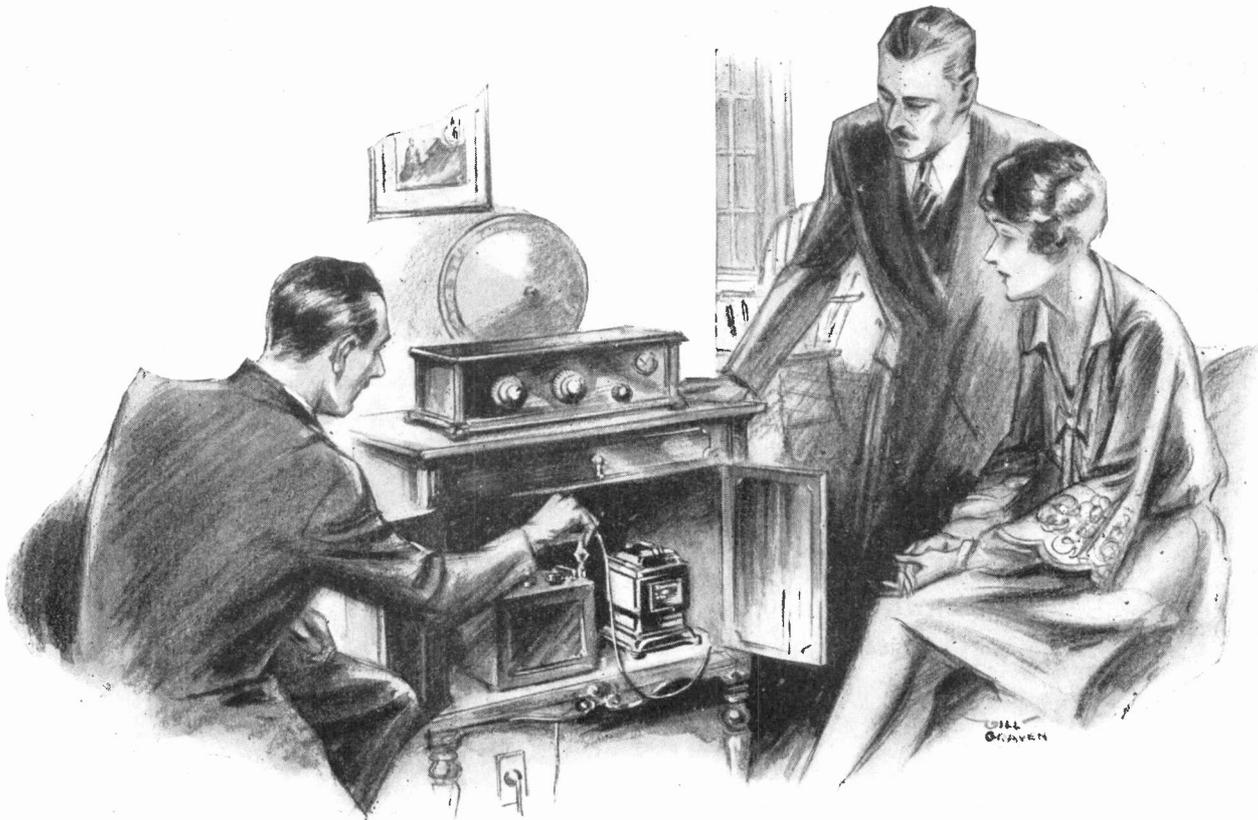
Did You Get This?
 IMPORTANT Bulletin

CONVERT —that's the word!

THE entire story of AC conversion has been put into a remarkable bulletin which has been mailed to every radio dealer in the country. It is packed full of facts which are of vital interest to you —facts which you must know. You should have received this bulletin—if you didn't, write now to

KARAS ELECTRIC COMPANY
 4044-D N. Rockwell Street Chicago

AC AC AC AC AC AC AC AC



To demonstrate a General Electric Charger means to sell one

Think of the millions of radio sets that are battery operated. That's *your* market for General Electric Battery Chargers. These chargers—called Tungars—give the radio fan absolute freedom from the difficulties of keeping batteries always at their best.



5-Ampere Tungar

The next time you get a service call and find that the difficulty is merely run-down batteries, why not leave a Tungar clipped to those batteries till the next morning? This is better than taking the battery to your shop—for it is a simple demonstration which has sold many a Tungar. Why not try it yourself?

And do not overlook the fact that many fans have battery chargers that have a limited life. They need to be replaced. Tungars—the long-lived chargers—are the logical choice for *lasting* service.



Tungar Trickle
Charger

 **Tungar**
REG. U.S. PAT. OFF.
BATTERY CHARGER

Tungar—registered trademark—is found only on the genuine. Look for it on the name plate.

New low prices
East of the Rockies

2-AMP. TUNGAR \$14
\$24 5-AMP. TUNGAR
TRICKLE TUNGAR \$10

GENERAL ELECTRIC

MERCHANDISE DEPARTMENT GENERAL ELECTRIC COMPANY BRIDGEPORT, CONNECTICUT.

These dealers find April a busy month

In 24 hours we transform your battery radio set into an **A C Radiotron ALL ELECTRIC** that gives power amplification and the finest tone quality in radio---

We can make your old battery radio set—not just an A C receiver—but completely transform it into a Powered DeLuxe A C electric. With Powered amplification you get those rich deep tones that you have only heard before in the \$800 and \$1000 radios and phonographs. We equip each set with a genuine Powerizer, the same tone and power plant that is used in expensive radios and phonographs.

A demonstration will cost you nothing.

Licensed by Radio Corporation of America and Associated Companies

At these dealers:

STEWART & CO.
Howard and Lexington Sts.

Do not discard your old set. Within 24 hours we can change your present Radio into an Electric Set, using the POWERIZER and A. C. Tubes.

Can Be Purchased On Household Club Plan

PENN-CLIF SERVICE CO., INC.
Distributors and Service Madison 0215
2678 Pennsylvania Ave.

HEADQUARTERS. WE SPECIALIZE ON POWERIZER

JOEL GUTMAN & CO. Plug 036

Save your Radio Powered **C. D. MESSENGER CO.** Vernon 23
83 E. North Ave.

At Both Stor
329-31 W. Balt
3131 Greenmoor

COME TO US TO HAVE YOUR RADIO POWERIZED
CHARLES ELECTRIC CO.
1720 N. CHARLES ST.

POWERIZER ON DEMONSTRATION IN OUR STO
MILTON MUSIC STORE HAMILTON

Specialists on Powerizers know no season. They are busy making money now. You should be a Powerizer Service Station in your city. Bulletin RR 1018-19 tells you how. Send for it now.

RADIO RECEPTOR CO.
106 Seventh Avenue
New York City



Model 528

A New A. C. Portable Instrument Three Ranges—150/8/4 volts for Radio and General Testing

NOTE its small, compact shape—for convenience in handling and carrying about with testing kit or with other equipment. Contained in a red and black mottled bakelite case to distinguish it from the companion Model 489 D. C. instruments which are plain black. Bold, legible figures on a silvered dial—no mistake in making quick readings, and no questions as to their accuracy.

In all features of electrical design and construction it is a truly high-class scientific instrument equally serviceable for laboratory and shop work as well as for utility radio uses in the home.

Dealers will find a ready sale for this all-purpose A. C. testing instrument—not only to radio set owners but to any customer who needs a small, inexpensive A. C. instrument of great reliability and long-life accuracy. Also made in double voltage ranges up to 600 volts, and as Ammeters and Milliammeters.

WESTON ELECTRICAL INSTRUMENT CORPORATION
581 Frelinghuysen Ave., Newark, N. J.

WESTON RADIO INSTRUMENTS



STEVENS HOTEL

CHICAGO

2ND ANNUAL R.M.A. RADIO TRADE SHOW

2nd R.M.A. BANQUET, Thursday, June 14

At Rainbo Gardens, on Chicago's North side, the show place of the Middle West, on the evening of Thursday, June 14, will be held the Second Radio Manufacturers' Association Banquet. The entire proceedings will be broadcast. Sumptuous feasts for eye and ear, including ISHAM JONES and his world famous Chicago Jazz Orchestra will round out the banquet. As the banquet hall borders on the Hai Lai Courts there will be an opportunity to witness several matches of this interesting game of the Spanish Countries.

Tickets can be had upon application to the Radio Manufacturers' Association office, 32 West Randolph Street, Chicago, Illinois, or 1265 Broadway, New York City. Tables will be reserved for parties of ten persons each. Tickets \$6.50 per person.

Full particulars regarding your credentials to the Trade Show will be sent to you in April. For any other information address

**RADIO MANUFACTURERS' ASSOCIATION
TRADE SHOW**

Under Direction of U. J. Herrmann and G. Clayton Irwin, Jr.
Room 1800, Times Bldg., New York City



The Two Biggest

1 THERE'S not a radio dealer, jobber, distributor or manufacturer who isn't vitally interested in the Second Annual Radio Trade Show, to be held in conjunction with the Radio Manufacturers Association Convention at the Stevens Hotel, Chicago. The dates are June 11th to 15th.

Here for the first time the plans of the radio industry for the coming season will be disclosed. New models will be displayed. New prices will be announced. Sets, tubes, loudspeakers, socket power units, radio furniture, other accessories and parts will all be displayed.

Every radio dealer, jobber, distributor and manufacturer should be in Chicago in June for the Radio Trade Show and Radio Manufacturers Association Convention.

Radio Retailing *The Business Magazine
of the Radio Industry*

Events in Radio

2 BUT whether you or the thousands of other members of the radio industry get to Chicago in June or not, there is another trade show you cannot possibly miss. This is the "trade show on paper"—the June Radio Trade Show issue of radio's leading publication—*Radio Retailing*.

Between the two covers of this gala number will be the sales messages—the exhibits on paper—of every successful radio manufacturer in the industry.

Just as the Radio Trade Show opens in Chicago, copies of the June Radio Trade Show issue of *Radio Retailing* will go out to all worthwhile radio dealers, jobbers, distributors and manufacturers.

If you are a radio manufacturer you cannot afford to miss the opportunity offered by the June issue of *Radio Retailing* to tell your story to all your prospects in the industry. And long after the Radio Trade Show in Chicago is just a memory—when dealers and jobbers are home again, this important issue of the industry's business magazine will be selling for you.

Advertising forms for the June number close on May 21st. It is suggested that early reservations be made.

McGRAW-HILL PUBLISHING COMPANY, Inc.

Tenth Avenue at 36th Street, New York City

Member ABC and ABP

Meets the increasing
demand for
popular priced
A.C. Sets



Red Lion Cabinet

with

THE NEW ATWATER KENT Model 37 A.C.

These popular Red Lion-Atwater Kent combinations have found great favor among those who want first-class A.C. sets at moderate prices. For today's big business in radio is in the popular priced field.

From your Atwater Kent Distributor you can secure a complete line of Red Lion Cabinets in desk, console and chest types for the new Atwater Kent Model 37 A.C. Radio. And of course you can also get the regular line of cabinets for Atwater Kent Models 35, 30, 33.

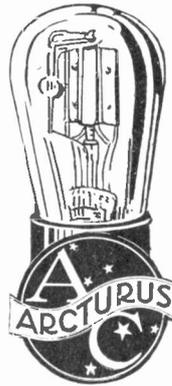
An ideal outfit is the new Red Lion-Atwater Kent Combination which supplies cabinet, A.C. set and built-in speaker to retail at \$133.

*Full particulars of our complete line of models
sent on request.*



RED LION CABINET CO.
Red Lion, Pa.

LONG LIFE ARCTURUS A-C TUBES



Amplifier — Detector
—Hi-Mu—Power

A-C Adaptorless Cable
Tubes

Arcturus A-C Kit for
A-C conversion.

6000 HOURS—and still “going strong!” That’s the record of ARCTURUS A-C TUBES on life-test with several other makes of tubes, that “died” before reaching 1000 hours.

Remarkably long life! Coupled to this, these tubes represent the highest development in the field—attested to by many manufacturers and thousands of fans standardizing on ARCTURUS A-C TUBES throughout the country.

To you—as a dealer—we extend a unique co-operative sales and advertising plan that is resulting in volumes of business for ARCTURUS AUTHORIZED DEALERS everywhere.

*Write for the Arcturus proposition,
now. It's profitable and interesting.*

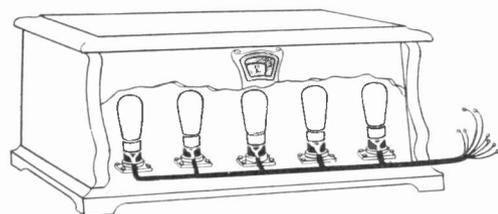
ARCTURUS RADIO CO.

255 Sherman Ave.

Newark, N. J.



A-C ADAPTOR HARNESS



Most Popular of Them All!

The Corwico A-C Harness is the easiest to sell because it is the easiest and quickest way to A-C tube operation. Corwico is the only universal harness made. It can be used to convert all makes of receivers. It's also the simplest and least complicated harness on the market. Connect Corwico harness to any standard step-down transformer, insert the A-C tubes into the adaptors and any battery set of six tubes or less is changed into an A-C Receiver.

Made For All Types A-C Tubes

One with adaptors attached for R. C. A. Type A-C tubes and one without adaptor for Arcturus A-C cable tubes.

Type “R” for R.C.A.

Type “A” for Arcturus

Tubes \$8.50

Tubes \$6.00

Order a sample today. Particulars on request.

“The Braid Slides Back” **BRAIDITE** Hook-up Wire

Are you selling this popular item?

CORNISH WIRE CO. 30 Church St.,
New York City

A New REVELATION in Tone Reproduction



The

AIR-CHROME

Balanced Tension **SPEAKER**

has met with instant acceptance wherever it has been heard. This because of the realism and fidelity in reproduction of voice and instrumental music throughout the entire range—a feature seldom found in radio speakers.

With the present extended factory facilities, quick deliveries are now possible. Let us tell you about the Air-Chrome Balanced Tension Speaker—its unique construction and a plan for profitable resale.

AIR-CHROME STUDIOS, Inc.
168 Coit Street, Irvington, N. J.



ROLA TABLE CABINET, Model 20... \$35

Rola Table Cabinet

ROLA has built a new and finer loudspeaker with a truly remarkable performance... a speaker specially engineered to handle the greater power and tone-range of the new socket-power sets.

This new Rola speaker reproduces all musical tones, from the lowest to the highest, at full volume without trace of rattle or blasting... even when using "210" type power tubes with maximum plate voltage.

This instrument may be installed with any radio set with complete assurance of perfect and permanent satisfaction to your customer.

*Write for the name of
the nearest Rola jobber*

THE ROLA COMPANY

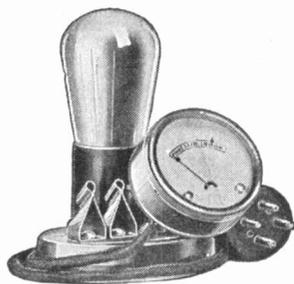
612 North Michigan Avenue, Chicago, Illinois
Forty-fifth & Hollis Streets, Oakland, California

Tests Tubes Quickly and Accurately

Readrite

Type AA

Home Tube Tester



TYPE AA

A practical device for the set owner. Invaluable in weeding out tubes that do not function properly. Gives readings in filament voltage and also plate current in milliamperes, either 3 or 5 volt tubes. The grid switch gives two plate readings.

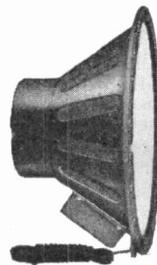
Undoubtedly the greatest value ever offered in a home tube tester. Extremely simple to operate. Is accurate and gives quick tests of tubes. A quick seller that carries a good profit. Order sample today.

Price \$3.50

Includes Cord and Plug

Readrite Meter Works

6 College Ave. *Established 1904* Bluffton, Ohio



Rola Reproducer

Manufacturers: The new Rola Cone Reproducer Unit can be obtained for installation in your cabinets... Write or wire for samples and particulars.

Announcing the New Shielded Grid



LIST PRICE



\$6.50



RF-22

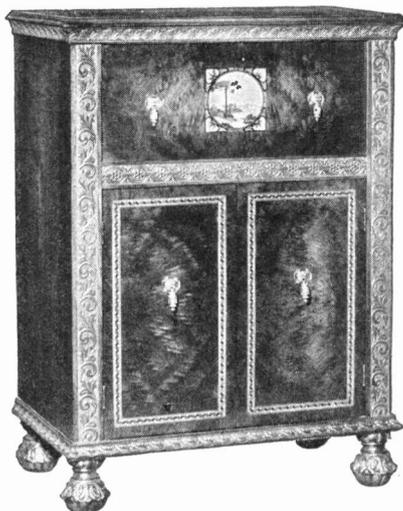
The "CeCo" RF-22 is of the four element shielded grid type and can be used to advantage only in special circuits or equipment designed for its use. Its high amplification constant and practically negligible control grid to plate capacity make this type of tube very efficient when used properly. The RF-22 is primarily designed to be used as a radio frequency amplifier and as such is capable of a voltage amplification of from 30 to 60 per stage, dependent upon circuit design. It may also be used as an audio frequency amplifier where resistance coupling is employed. One of the several uses of the RF-22 is that of a "Space Charge Grid" tube.

Write for Particulars and Prices

C. E. Mfg. Co., Inc., Providence, R. I., U. S. A.

Largest plant in the World devoted exclusively to making of Radio Tubes

*One of our many
beautiful designs*



A TOUCH of elegance and charm from across the seas contributes vitally to the beauty of this cabinet. Imported marquetry inlay on a background of matched butt walnut 100 per cent figures makes a most pleasing and attractive appearance. 5 ply walnut throughout. Interior grille polychromed. Materials and workmanship of the highest grade to meet the most exacting requirements of the purchaser.

Write for catalog.

ASTON CABINET MANUFACTURERS

*Originators and Designers of
high grade Radio Cabinets*

1223-1229 W. Lake St., Chicago, Ill.

Business Wants

THE *Searchlight* Section of this paper represents a meeting place for men and concerns who have immediate business "wants" to fill—the section covers

Agencies Wanted	New Industries Wanted
Agents Wanted	Office Space for Rent or Wanted
Books and Periodicals	Partners Wanted
Business Opportunities	Patent Attorneys
Civil Service Opportunities	Patents for Sale
Contracts Wanted	Plants for Sale
Desk Room for Rent or Wanted	Positions Vacant
Educational	Positions Wanted
Employment Agencies	Property for Sale
Employment Service	Representatives Wanted
Foreign Business	Salesmen Available
For Exchange	Salesmen Wanted
For Rent	Spare Time Work Wanted
For Sale	Sub-Contracts Wanted
Franchises	Tutoring
Labor Bureaus	Vacation Work Wanted
Miscellaneous Wants	Work Wanted

"SEARCHLIGHT"

DEALERS—here's an opportunity to make a real profit on Power Units!

LOOK AT THESE BARGAIN PRICES!



UNI-RECTRON POWER AMPLIFIER

(Model AP-935)

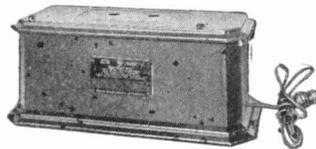


As the Uni-Rectron stands it is a super power amplifier, which can be used in connection with any radio set and loud speaker. Binding posts are provided for input to the Uni-Rectron and output to a loud speaker. Requires no batteries for its operation. It obtains its power from the 110 volt, 60 cycle, alternating current house lighting circuit. Radiotron UX-210 and Rectron UX-216-B or 281 Tube are used with this Amplifier. All that is necessary is to insert the plug into a wall or lamp socket and the R.C.A. Uni-Rectron, by means of the UX-216-B or UX-281 changes or rectifies the current so that the correct

voltage will be delivered to the super-power amplifier tube, UX-210. The whole unit is enclosed in a metal cabinet which is small and compact and presents a good appearance.

This super power amplifier cannot overload. From the faintest whisper to the loudest crash of sound—R.C.A. Uni-Rectron amplifies each note at its true value. High and low notes are all treated alike.

Not only is its volume and quality a revelation but it lowers the cost of set operation, for when Uni-Rectron is used the drain on the batteries which operate the receiver is greatly reduced.

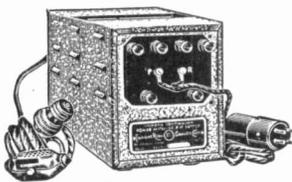


List Price \$88.50 Each

(without tubes)

Special at \$14.50 Ea.

TIMMONS Combination Power Amplifier and "B" Supply



List \$70.00
(without tubes)

SPECIAL AT
\$18.50 ea.



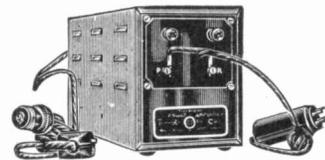
Both of these high quality compact units use a UX-216-B or 281 Tube for rectifying and a UX-210 super power audio tube as an amplifier which gives distortionless and true natural reception with wonderful tone quality and volume.

Both instruments are identical in their performance as super power amplifiers. The Combination however is also

TIMMONS Power Amplifier

List \$45.00
(without tubes)

SPECIAL AT
\$11.50 ea.



a complete "B" Eliminator furnishing all the "B" current required by the regular tubes of the set. No adjustments required and no output transformer or similar auxiliary equipment needed with either unit.

For use with alternating current 105-120 volts, 50-60 cycles. These units have been approved by Popular Radio and Popular Science Laboratories.

All units offered in this advertisement are BRAND NEW, packed in original factory sealed carton and fully guaranteed!

TERMS: 20% cash with order, balance C. O. D. f.o.b., New York.

AMERICAN SALES CO., 19-21 Warren St., NEW YORK CITY

POSITIONS WANTED

RADIO, factory and production manager, organizer, quantity production, mechanical engineer; 10 years in similar positions. Adjustable speaker unit available. Patent applied for. PW-64, Radio Retailing, Tenth Ave. at 36th St., N. Y.

SALESMEN WANTED

WANTED salesmen: Earn extra money. Sell a line of string, band instruments, accessories, portable phonographs and supplies. Commission basis only. Give experience, present employment, territory covered, references. Do you drive? Applications strictly confidential. SW-65, Radio Retailing, Chicago.

REPRESENTATIVE WANTED

Manufacturer of high-grade radio cabinets and furniture, wants sales representative selling jobbers. For details address The National Cabinet Company, New Philadelphia, Ohio.

AGENTS WANTED

NATIONALLY known manufacturer of radio aerial equipment has some unassigned territory on a commission basis. AW-54, Radio Retailing, New York City.

Manufacturers Agent

With New York office, will represent manufacturer of radio merchandise who needs metropolitan outlet. If product is sufficiently salable will devote whole time to project on commission, selling to dealers and jobbers. AW-63, Radio Retailing, Tenth Ave. at 36th St., New York.

FREE RADIO EMPLOYMENT SERVICE

Employers in any line of the Radio industry (or in allied industries) should call on our Free Radio Employment Service when additional employees are needed. Thoroughly trained, experienced men supplied anywhere in the U. S. or Canada on 48 hours' notice. No charge for service. Send post card today for our free monthly bulletin. Address National Radio Institute, Dept. R.R., Washington, D. C.

SALESMAN AVAILABLE

A young man 29 years of age wants to connect with a manufacturer of radio as salesman to represent them in Illinois and adjacent territory. Have successfully owned and operated retail and wholesale radio business for 5 years and can leave manager in own store. Understand radio thoroughly from the merchandising end as well as the technical side. Can furnish own car. References. College education. SA-62, Radio Retailing 7 So. Dearborn St., Chicago, Ill.

Dealers !!!

Send for our catalog of radio bargains.

Every item a real money-maker

AMERICAN SALES CO.

19-21 Warren St., New York City

FOR SALE

400 Jewett Loud Speakers

All or any part, \$5 each net. List at \$32. All mahogany Box Type with Venco Units. No orders filled unless accompanied with money or draft. This is the balance of over 5,000 which we sold at higher price.

M. PRUSSIAN MACHINERY CO.
534 West Congress St., Detroit, Mich.

WE PAY CASH for your

SURPLUS RADIO STOCKS

What have you for sale?

AMERICAN SALES CO.

21 Warren Street, New York City.
Established 1919

A New Member of the Popular *Sylvania* Line

SX-222



SX-222—a new shielded grid tube intended for use as a radio frequency amplifier.

We invite you to test SX-222 for quality and performance against similar tubes on the market, because we know that any test you make will prove Sylvania's superiority.

Complete information on the new SX-222 upon request.

Rating of SX-222
 Filament Voltage.....3.3 D.C.
 Filament Amps......132
 Plate Volts.....180 (Maximum)
 Voltage Amplification
 Factor.....300
 Price — \$6.50

Tune in on stations WJZ,
 WBZ, WBZA, KDKA
 and KYW every Wednesday
 night at 8:30 for the
 Sylvania Foresters.

SYLVANIA PRODUCTS CO.

EMPORIUM, PA.

