

RADIO RETAILING

INCLUDING
SERVICE
AND
INSTALLATION
SECTION

Home Entertainment Merchandising

Program

NATIONAL CARBON COMPANY, Inc.

presents

EVEREADY RAYTHEON REVUE FOR 1933

featuring

4-PILLAR SUPERIORITY

• • •
ACT 1

The strongest newspaper campaign, in size of space and frequency of insertion, ever placed behind a radio tube, begins this month. It consists of advertising already tested on the printed page and found to be *effective*.

ACT 2

To dealers everywhere, new and varied merchandising helps will be made available throughout the year. These will help bring business into your store. News of this 1933 merchandising campaign is now being made known to dealers.

ACT 3

The 4-pillar support of Eveready Tubes will continue to make satisfied customers for you, and bring you *new* customers. For only in Eveready Raytheons are insured tone and longer tube life available—because of the 4-pillar principle. The footlights are on. Get ready for the show—the biggest thing in tubes for 1933!

NATIONAL CARBON COMPANY, INC. GENERAL OFFICES: NEW YORK, N. Y.

Branches: Chicago New York San Francisco

Unit of Union Carbide  and Carbon Corporation

EVEREADY RAYTHEON 4-PILLAR RADIO TUBES

COMING SOON **WAIT**



Don't Fool Yourself About Auto Radio

Yes, there is a growing market for Auto Radio—but there is one vital thing to consider . . . *and that is your profit*—Not the difference between your cost and your selling price, *but the amount of profit that actually sticks.*

If you take any other attitude you are just fooling yourself. There is a vast difference between home and auto radio. It takes more than metal, tubes, speakers and cables to make an auto radio that can be installed to successfully operate in a car—give customer satisfaction—and leave a profit for you.

MOTOROLA Dealers Make Profits. Three years of intensive experience and specialization in auto radio insures that. Now a new MOTOROLA is about to be introduced. New in exclusive features. Proved "B" power supply—self-contained all-electric. New design and construction that simplifies installation past belief. New low prices. New performance that assures customer satisfaction—that builds sales and makes your profits stick. Write or wire now for advance information.

GALVIN MANUFACTURING CORPORATION
849 W. Harrison Street . . . Chicago, Illinois

WIRE
WRITE
GET FULL PARTICULARS

GALVIN MANUFACTURING CORPORATION
849 W. Harrison Street, Chicago, Ill.

Please send me advance information concerning MOTOROLA All Electric Auto Radio.

Name _____
Address _____
City _____
State _____

MAIL NOW

DEALERS WHO SELL **TUNG-SOL** RADIO TUBES

are never affected by sudden **PRICE**
CHANGES which reduce inventory
values. . . . That is one of the things
against which the Tung-Sol selling
plan protects them. . . . There are
also others. . . . Why not write today
for the complete story?

TUNG-SOL RADIO TUBES Inc.
NEWARK, N. J.

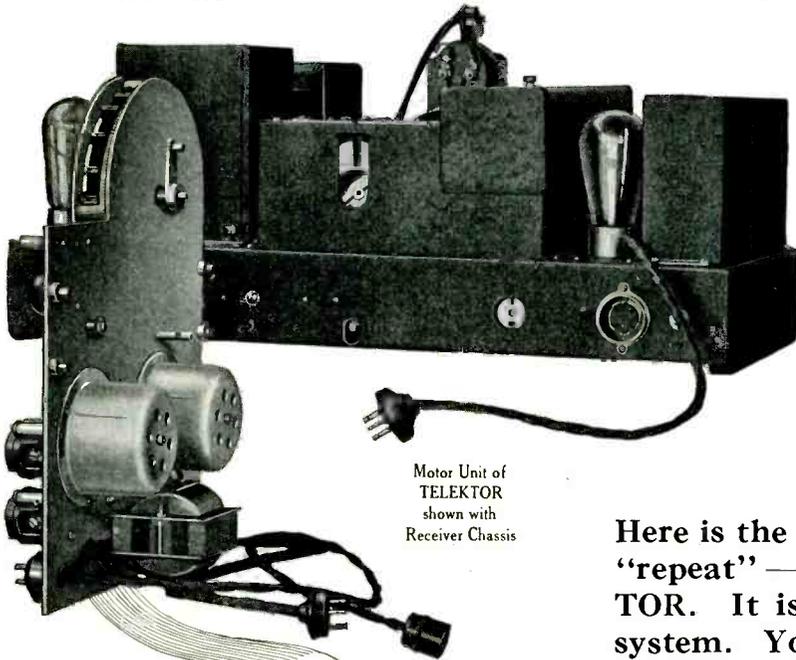


BRANCHES

ATLANTA
BALTIMORE
BOSTON
CHARLOTTE
CHICAGO
CLEVELAND
DALLAS
DETROIT
KANSAS CITY
LOS ANGELES
NEW YORK
ST. PAUL

LICENSED UNDER PATENTS OF RADIO CORPORATION OF AMERICA

THIS HAS WHAT RADIO LACKS— "REPEAT" SALES



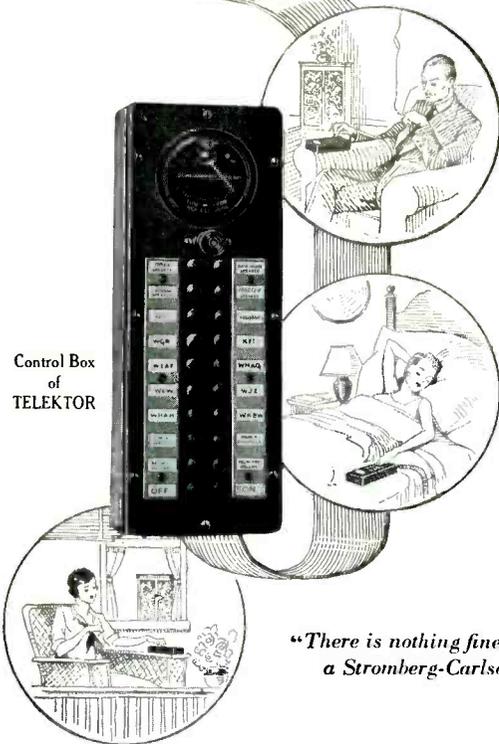
Motor Unit of
TELEKTOR
shown with
Receiver Chassis

EVERY dealer has felt the lack of "repeat" business in radio. Tubes and repair work help, but not enough.

Here is the only thing in radio with *real* "repeat" — Stromberg-Carlson TELEKTOR. It is a complete audio program system. You start a customer by selling him a TELEKTOR Radio; then he becomes an immediate prospect for the Motor Unit and Control Box—this gives him the beginning of a TELEKTOR system and he gradually extends the system to various rooms in his house through the purchase of additional Reproducers and Control Boxes.

And TELEKTOR is so fascinating . . . its lure is so great . . . that it becomes the most powerful help a salesman can have to raise his prospect up not only to one profitable sale, but a series of profitable sales.

Control Box
of
TELEKTOR



*"There is nothing finer than
a Stromberg-Carlson"*

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



1894

Stromberg-Carlson

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



1932

Your 1933 Profits Depend on *Prices and Discounts*

STOP trying to operate your refrigeration business without sufficient profit.

No business can stand up indefinitely under this load, as hundreds of electric refrigeration dealers learned to their regret in 1932. Prices and discounts brought about their downfall.

Too late, these merchants learned that they could not sell enough refrigerators to pay their overhead when prices were too high. . . .

Or that service and complaints more than wiped out their profit on the cheap, flimsy refrigerators. . . .

Or that their dollar profit on short-profit refrigerators was so hopelessly small that they could not build up a cash reserve—no matter how many they sold.

The shrewd, alert refrigeration merchants are today turning to Mayflower in constantly increasing numbers because—

1. The Mayflower is a proved success—

with a 13-year record that is unsurpassed for economical operation and trouble-free service.

2. This quality line is priced at popular competitive prices—yet offers extra size, extra features, extra quality which make each model a super-value.
3. It offers merchants discounts which insure a worthwhile profit. Even the price leader pays you a handsome profit.

The new Mayflower line for 1933 offers many brilliant new features and conveniences plus matchless beauty which make it the outstanding line of 1933.

If you want a just profit to show for your selling efforts in 1933 . . . if you want satisfied customer . . . if you want a complete line priced in tune with today's ideas of thrift . . . then investigate Mayflower. Write, wire or phone now for full details.

TRUPAR MANUFACTURING COMPANY
Dayton Ohio



MAYFLOWER

ELECTRIC REFRIGERATION

There **NEVER** was a refrigerator like **THIS!**



WHERE IS THE UNIT?

The newest, finest, greatest refrigerator ever offered or even dreamed about. A triumph of 17 years of scientific research and engineering development. Made by one of the oldest and largest manufacturers of refrigeration equipment in the world.

The 1933 Copeland is the most revolutionary development in the history of the industry.

It wipes out all dealer service problems.

It contains a new hermetic-type cartridge unit.

The 74-pound full-powered unit is not on top, in the bottom, on the sides or on the front or back of the cabinet.

The Compressor, including the MOTOR, has only 3 small moving parts.

It slips in and out of the cabinet quicker than a refrigerator can be filled with ice.

It defrosts automatically.

The 1933 Copeland

It makes the entire cabinet a semi-hydrator.

It's all food and ice space, in much less kitchen space.

Radical changes have affected every angle of your market for two years. Copeland meets this 1933 market with the outstanding challenge of the industry—the most advanced design and—a new type of mechanism which overturns all existing methods of distributing and selling.

Get the whole *Profit and Sales Plan Story*—
SEND THIS COUPON NOW

COPELAND, Mt. Clemens, Mich.

Gentlemen:

I want to know all about the 1933 Copeland.

I have handled the following refrigerators:

NAME _____

NAME OF FIRM _____

ADDRESS _____

R2

ATWATER KENT RADIO

Announcing

5-tube AC-DC

3-GANG CONDENSER

MODEL 155

\$24⁹⁰



11 inches wide, 7 $\frac{1}{4}$ inches high and only 5 inches deep. For AC and DC. Five tubes, superheterodyne, 5-inch electro-dynamic speaker, automatic volume control, 3-gang condenser, 2 watts output when on AC and approximately 1 watt on DC. It can be used on 25 to 60 cycles. Uses the new 25-Z5 rectifier tube.

THIS is only *one* of the smart new radios Atwater Kent adds to the 1933 line today. Four startling values are announced—at prices that will wake up the industry—with quality and eye-appeal that will bring customers into your store.

Look first at Model 155 shown above: A 5-tube superheterodyne with 3-gang condenser—operating on AC or DC—with a tuning range covering one police channel and the longest wave length of regular broadcasting stations. *And*

it's Atwater Kent quality from Golden Voice to drawn steel chassis—a REAL radio in the low price class.

No longer does such a low price mean "cheapness," toy radio or skimped quality. No longer need small sales mean trouble, complaints and red ink. They *now* mean Atwater Kent Model 155 and good business for you.

And that's only part of the story. See the following pages for more of Atwater Kent's sweeping answer to the price question.

Rocky Mountain region and west—prices slightly higher

ATWATER KENT MANUFACTURING COMPANY A. Atwater Kent, President 4700 Wissahickon Avenue, Philadelphia, Pa.

A PRICE FOR EVERY POCKETBOOK

ATWATER KENT RADIO

Hits 1933 where they buy



MODEL 555

Built to sell and
sell **BIG** at

\$34⁹⁰

HERE is the 1933 leader at \$34.90—Chest type, A. C., five-tube superheterodyne Atwater Kent Model 555.

Here's quality that you'll never believe until you give it a tone test in comparison with expensive sets. Here's a cabinet job that looks double the money; figured Santo Domingo mahogany with a beautiful inlay. It is the easiest radio to "place" in the home that you ever laid eyes on—a truly luxurious cabinet of great beauty—with an Atwater Kent up-to-the-minute chassis inside.

Model 555 has a six-inch electro-dynamic speaker—automatic volume control—3-gang condenser. It's highly sensitive—highly selective—with an output of 2½ watts. Five tubes, including double-diode triode and Pentode. Size is 12¾ inches wide, 8⅞ inches deep, and 8½ inches high. New outlets open their doors with Model 555 in your newer, complete Atwater Kent line.

Rocky Mountain region and west—prices slightly higher

Beautiful Model 555—above with chest closed—and below with chest open for tuning. The tuning range covers one police channel and all regular broadcasting stations. This Atwater Kent Radio is built to *make sales*—to be a leader for you. Here's quality in chassis—in cabinet—and in amazing performance—at \$34.90.

ATWATER KENT MANUFACTURING COMPANY • A. Atwater Kent, Pres. • 4700 Wissahickon Ave. Philadelphia, Pa.

A SALE FOR EVERY PROSPECT

ATWATER KENT RADIO

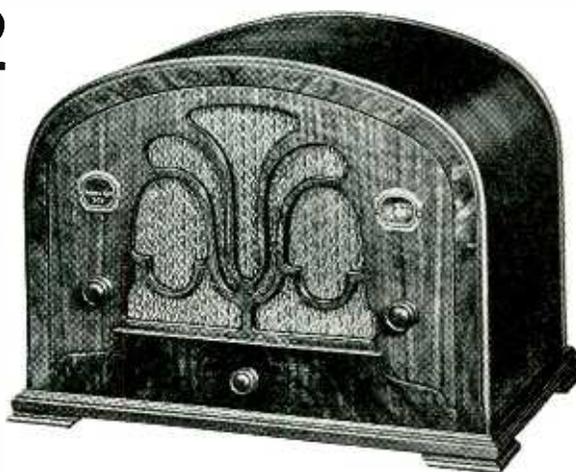
Adds new Winners where they sell

Full sized Atwater Kent Compact Chassis and Standard Compact Speaker in Model 246—at

\$39⁷⁵

HERE is an amazing answer to your request for a FULL performance radio to sell below \$40. Model 246 is in no sense a "midget" radio. Its compact size is not too small to provide room for a full dynamic speaker and ample baffle area—allowing the 6-tube standard Atwater Kent chassis to deliver a tone and reception that place it in the FULL PERFORMANCE class.

A watchmaker's precision in the workmanship, skillfully incorporates full size set features into small space... tone control... automatic volume control... improved superheterodyne circuit... with a tuning range covering one police channel and entire range of regular broadcasting stations. The cabinet looks class and quality. It is! And the price, we announce with enthusiasm, is \$39.75.



New Six-Legged Console Model 448—the radio America said it wanted—at only

\$79⁷⁵

IT'S ENTIRELY NEW—designed as only Atwater Kent could design it, to meet the favor of those who seek the UTMOST in radio reception.

All the latest improvements that *are* improvements are in this chassis. Count them: (1) silent tuning (2) push-pull amplification (3) double-diode triode tube and Pentode (4) illuminated, quick-vision compensating dial (5) large size Atwater Kent full dynamic speaker (6) 4-point tone control (7) 8-tube improved superheterodyne. AND Atwater Kent tested mechanical excellence.

Model 448 is a beautiful radio with a performance that is only possible with the laboratory engineering and precision workmanship of Atwater Kent manufacture. *Its performance is unequalled at anything like the price!*

★ ★ ★ ★

Put models 155—555—246 and 448 side by side. Study their obvious quality. Consider their prices—\$24.90—\$34.90—\$39.75 and \$79.75. Compare this radio value dollar-for-dollar with anything on the market—and see what the Atwater Kent line offers you. On the next page see the new Motor Car Models.

Rocky Mountain region and west—prices slightly higher

ATWATER KENT MANUFACTURING COMPANY
4700 Wissahickon Avenue A. Atwater Kent, President Philadelphia, Pa.

A PROFIT FROM EVERY SALE

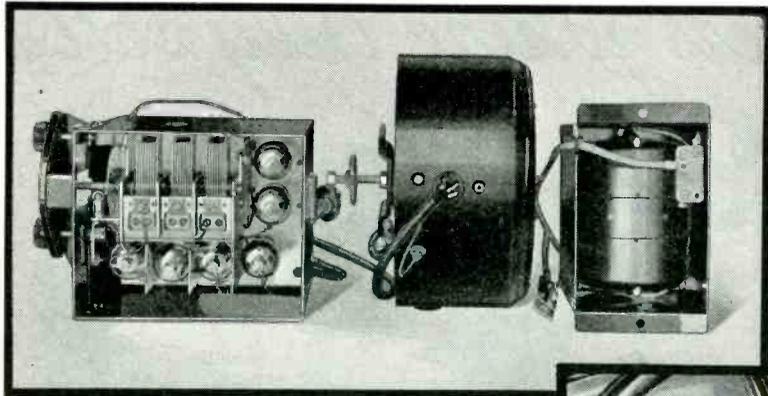
ATWATER KENT

Motor Car RADIO

with

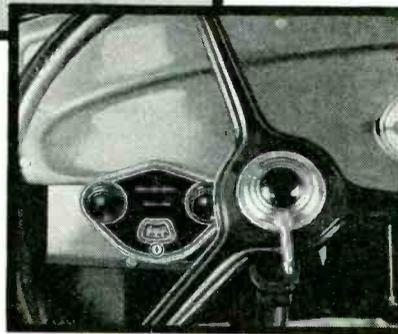
DYNAMOTOR POWER

Either Steering Column or
Instrument Panel Control



THESSE two dynamotor-powered receivers are practically the same, with the exception of the control mountings, and are so designed that either one or the other will fit any make of car.

Both sets are unusually powerful 6-tube superheterodynes, with improved automatic volume control, capable of producing a flood of rich beautiful tone and bringing in distant stations without distortion. The volume and quality of tone compare with that of a fine home radio. Neither set requires B or C batteries. Regular automobile electric system



For Instrument Panel—Model 636—Complete including suppression and installation equipment, but not installation.

\$59⁵⁰

(aerial equipment when required is extra)

supplies ample current with a minimum of drain on car battery.

The speaker is a large size full electro-dynamic, with tone control. Illuminated quick-vision dial is calibrated in kilocycles with a tuning range that covers all standard broadcasting station wave lengths.

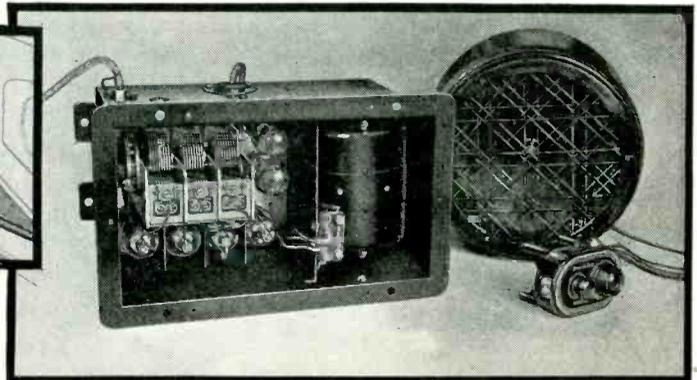
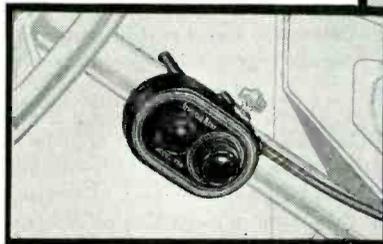
For Steering column—Model 756—Complete including suppression and installation equipment, but not installation

\$64⁵⁰

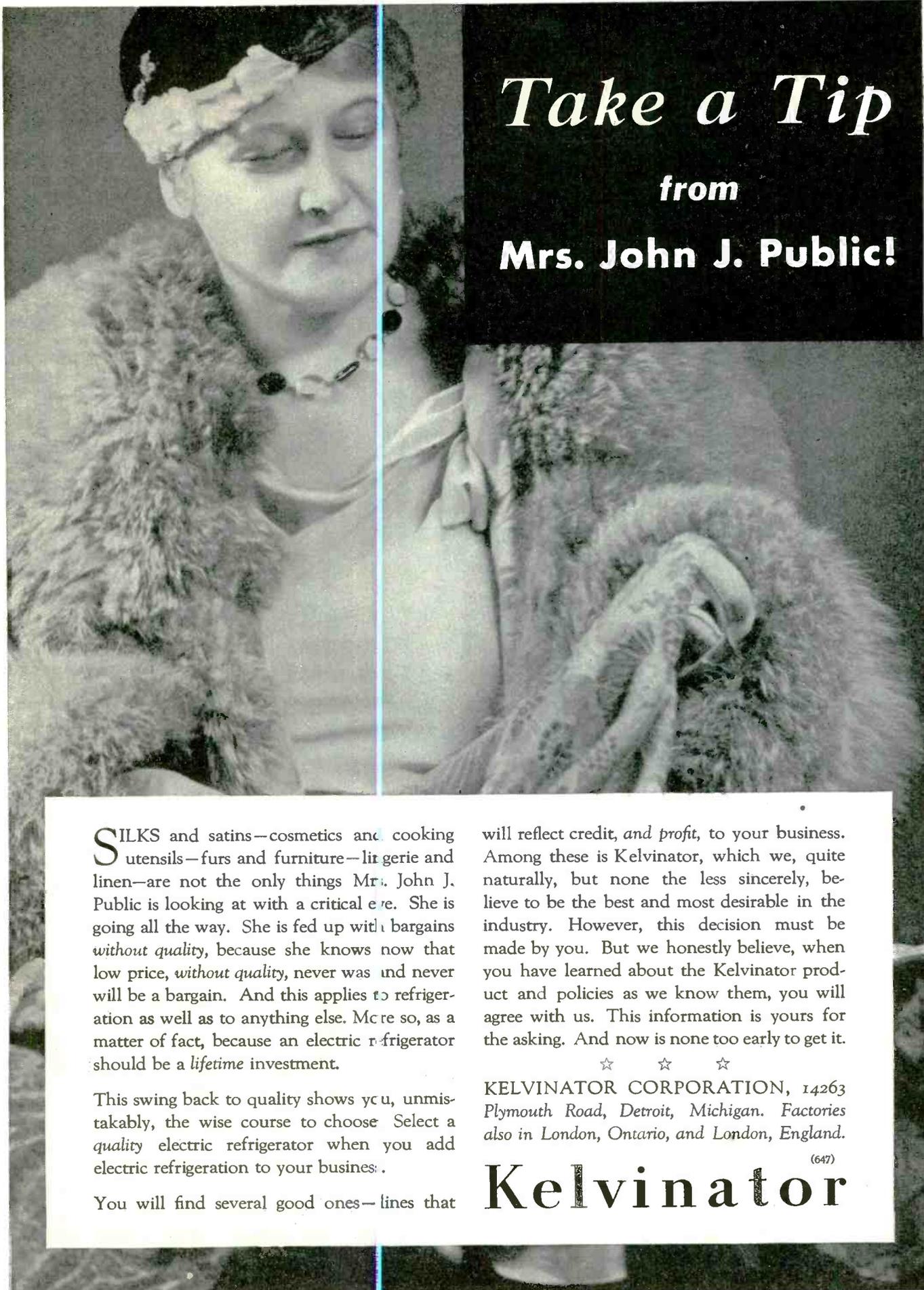
(aerial equipment when required is extra)

Rocky Mountain region and west—prices slightly higher

ATWATER KENT MANUFACTURING COMPANY
4700 Wissahickon Ave., A. Atwater Kent, Pres., Philadelphia, Pa.



**1933 ATWATER KENT RADIOS RANGE IN PRICE
FROM \$24.90 TO \$139.50**



Take a Tip

from

Mrs. John J. Public!

SILKS and satins—cosmetics and cooking utensils—furs and furniture—litterie and linen—are not the only things Mrs. John J. Public is looking at with a critical eye. She is going all the way. She is fed up with bargains *without quality*, because she knows now that low price, *without quality*, never was and never will be a bargain. And this applies to refrigeration as well as to anything else. More so, as a matter of fact, because an electric refrigerator should be a *lifetime* investment.

This swing back to quality shows you, unmistakably, the wise course to choose. Select a *quality* electric refrigerator when you add electric refrigeration to your business.

You will find several good ones—lines that

will reflect credit, *and profit*, to your business. Among these is Kelvinator, which we, quite naturally, but none the less sincerely, believe to be the best and most desirable in the industry. However, this decision must be made by you. But we honestly believe, when you have learned about the Kelvinator product and policies as we know them, you will agree with us. This information is yours for the asking. And now is none too early to get it.

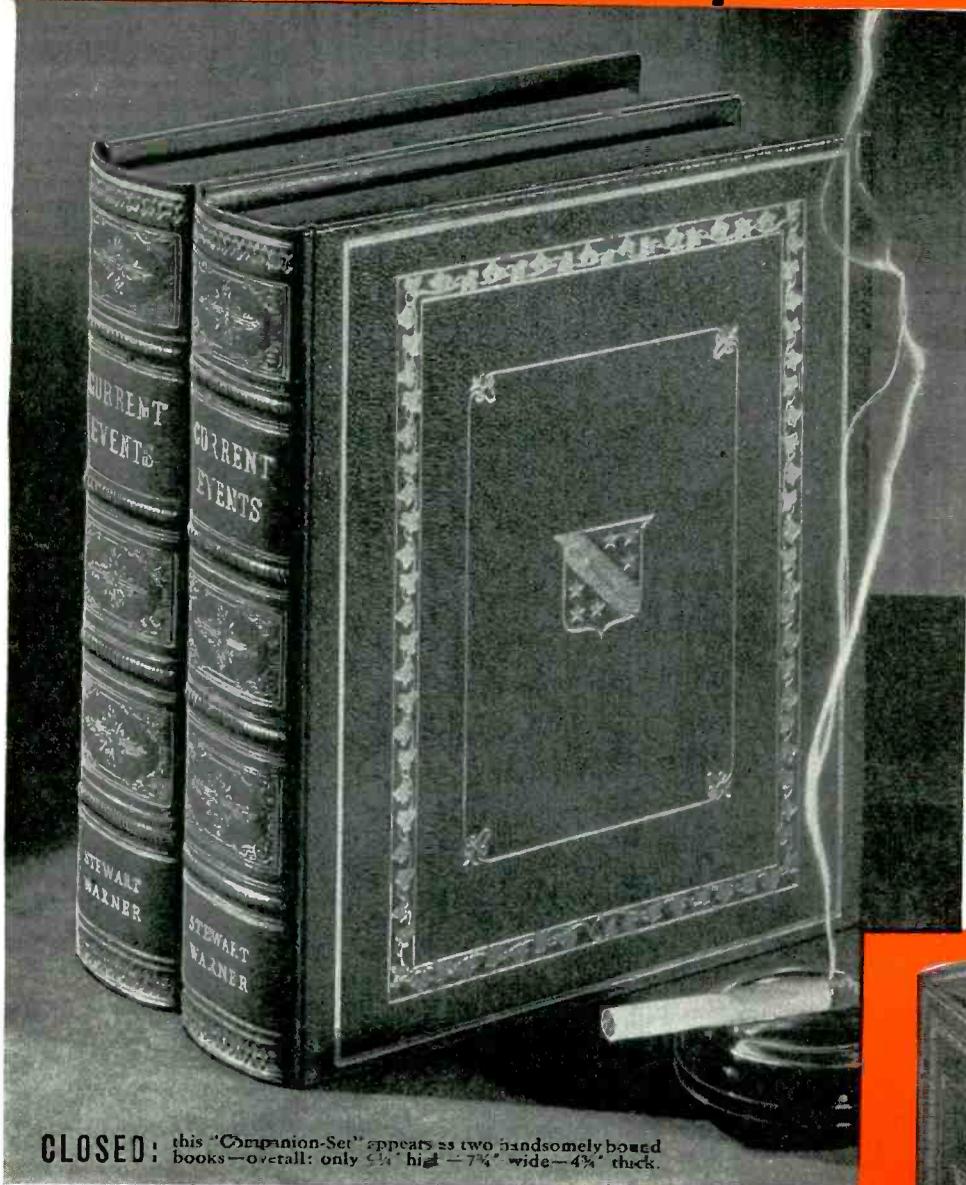
☆ ☆ ☆

KELVINATOR CORPORATION, 14263
Plymouth Road, Detroit, Michigan. Factories
also in London, Ontario, and London, England.

(647)

Kelvinator

STEWART-WARNER OFFERS THE The NEW Companion-Sets in



CLOSED: this "Companion-Set" appears as two handsomely bound books—overall: only 5¼" high—7¼" wide—4¾" thick.

In 7 Handsome Bindings

Illustrated above is one of the popular Standard Editions offered in handsome red, green or brown bindings, richly decorated with attractive gold stamping. Furnished complete with tubes, 20-ft. indoor aerial wire on concealed reel, and a 6-ft. "Heat Take-off" plug-in cord, at only **\$26⁵⁰**

Also Special and De Luxe bindings—of genuine leather—in rose, dark blue, dark green and plum, richly decorated with 22 K. gold stamping—at slightly higher prices.

BOOKS *that* Talk
that Sing
that Play

Again Stewart-Warners scoops the field with the newest thing in Radio. A real surprise. It's a radio that, until it is opened looks just like two handsome books, richly bound, with attractive gold stamped design. Double volumes of profit to you, for everyone will want one of these smart Companion-Sets whether he has another radio or not.

Take Them—Use Them—Anywhere Companion-Sets bring in Police Calls in addition to regular programs. Operating on either A. C. or D. C. current, easy to take anywhere, they are ideal for use in every room in the house—on vacations—at school—in hotel rooms, etc. Be first in your locality to cash-in on these novel "Hit of the Year" radios.

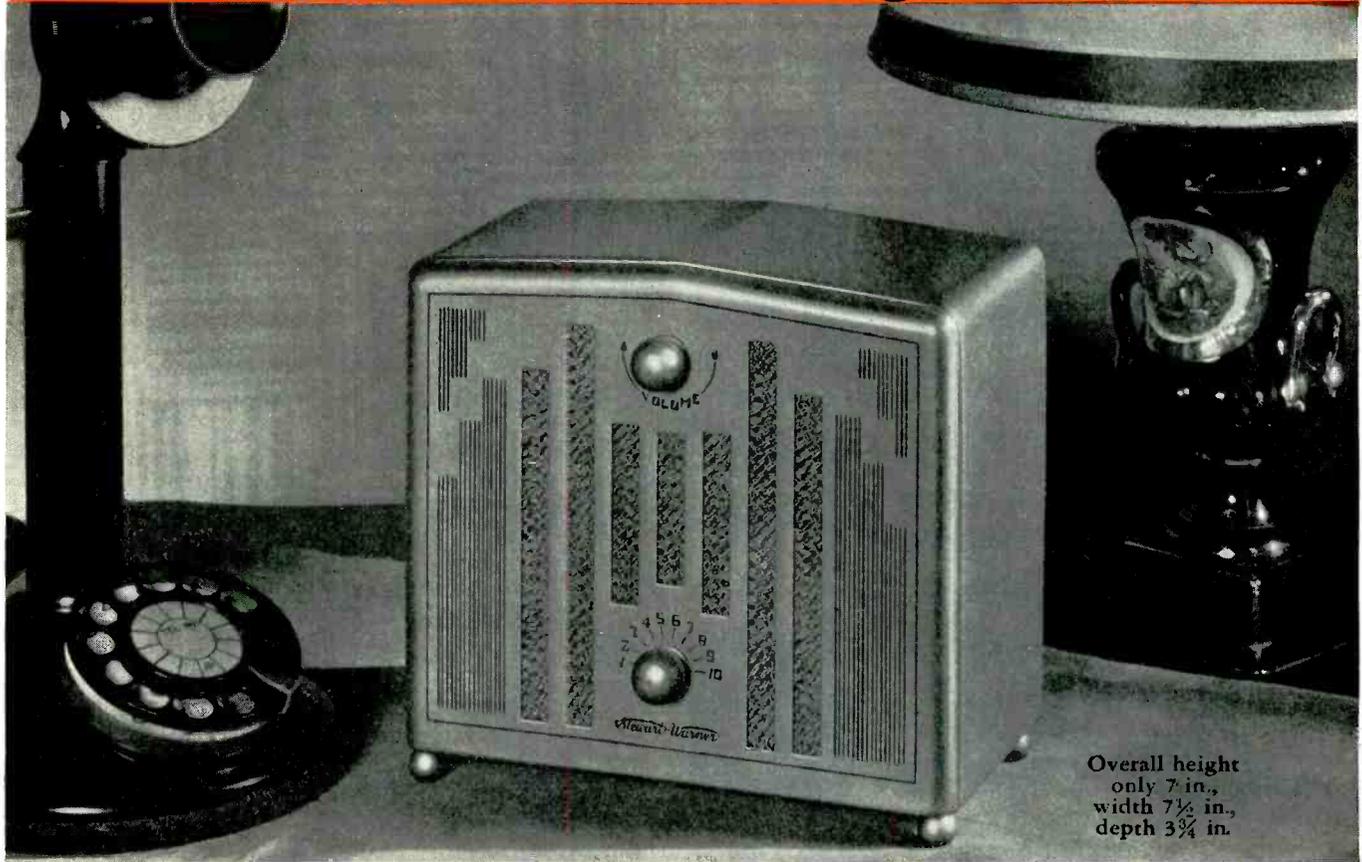


OPEN: this "Companion-Set" brings in the Finest Programs on the air—also Police Calls.

STEWART-WARNER

SMARTEST SALES-MAKERS IN RADIO!

Book and Metal Midget Models



Overall height
only 7 in.,
width 7½ in.,
depth 3¾ in.

3 Metal Midget Models

In Bronze — Gold — or Silver. Models that in compactness — and beauty of finish, have no equal today. Silver or Bronze Models complete with tubes, 20-ft. aerial wire on concealed reel, and 6-ft. plug-in cord, only

\$24⁵⁰

FOR USE ON ALL CURRENTS

Companion-Sets operate on
110 Volt—60 cycle
110 Volt—25 cycle and on
110 Volt—Direct Current
Also furnished with special
adaptor cords for use with
6 or 12 Volt Batteries
32 Volt Direct Current
220 Volt A. C. Current
220 Volt Direct Current

The smallest fine Radio on the market!

The use of metal cases has enabled Stewart-Warner to achieve a smarter, smaller design and more durable finish than would be possible with wood.

Both in beauty and performance, the superiority of this metal midget is outstanding. The reproducer, the same as used on the Book models, costs *twice* as much as those considered good enough for ordinary midgets.

The powerful, ingeniously designed circuit utilizes in a unique and effective combination the latest in tube

equipment: the 36, 39, 38 and 12Z3.

Police calls in *addition* to regular programs are brought in by this novel, compact, all-metal midget, which operates on either A. C. or D. C. current.

The trouble of overheating, encountered in ordinary midgets has been eliminated by a special "Heat Take-off" plug-in cord — an exclusive Stewart-Warner feature.

Get full details of Stewart-Warner Companion-Sets from your nearest distributor — or send coupon today.

STEWART-WARNER CORPORATION
1826 Diversey Parkway, Chicago, U. S. A.

R. R. 2-33

Please send me broadside illustrating all Companion-Set models in full colors, and give me the name of your nearest distributor.

Name

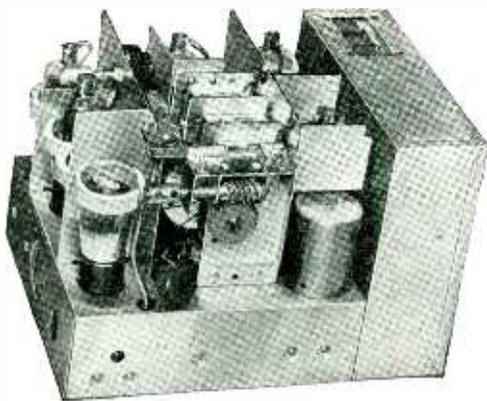
Address

City State

RADIO

America's Finest Automobile Radio!

8 TUBE MOTOSET ALL-ELECTRIC



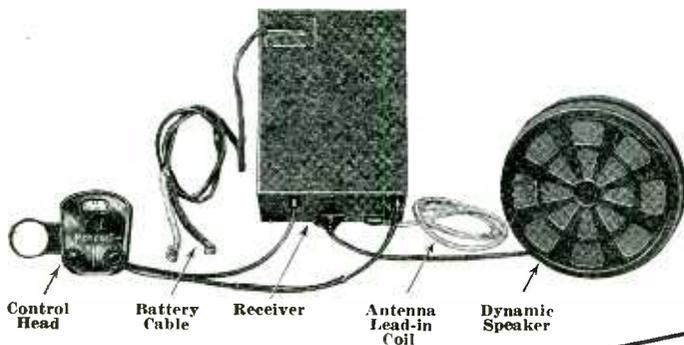
Engineering refinements especially developed for automobile operation, including special shielding, automatic lock, backlash eliminator, silent power supply, automatic replay, specially treated wiring and complete weather-proofing throughout.

Now for the first time an automobile radio offers the same high quality reception and performance as a fine home receiver.

In actual road tests between New York and Boston, the Motoset brought in Hollywood, Denver, Fort Worth, Miami and other distant stations with ample volume and no crosstalk.

SPECIFICATIONS

- All Electric
- Eight Tubes
- Superheterodyne Circuit
- Dynamic Speaker
- Full Automatic Volume Control
- Worm Drive Tuning—Shock Proof
- Positive Remote Tuning (No Backlash)
- Non-Glare Illuminated Tuning Dial
- Automatic Lock
- Low Battery Drain
- Silent Electric Power Supply
- Weatherproof
- Shielded Lead-In
- Inherent "B" Voltage Supply
- Compact in Dimensions
- High Sensitivity
- Sharp Selectivity
- Full Blended Tone



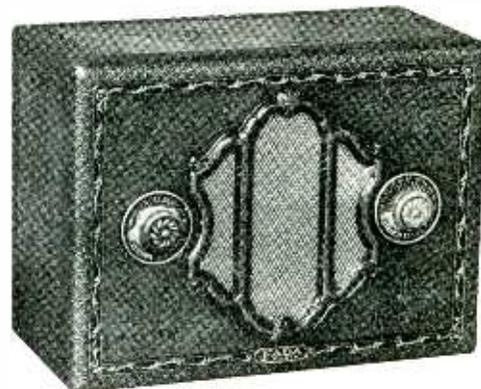
COMPLETE WITH
SPECIAL AUTOMOBILE TUBES

\$79⁵⁰ INCLUDING TAX

ALSO NEW!—The FADALETTE!

TAX AND TUBES INCLUDED
\$25⁰⁰
GET AN EARLY START WITH IT!

FADA engineers worked for months to perfect this job—but when you see and hear it you'll take your hat off to the result! Works on A.C. or D.C. current, uses only four tubes, and at the same time has everything you could ask for in tonal quality, volume, selectivity and sensitivity in any midget! At the price, this FADALETTE will certainly open up an entirely new field of prospects for you!



Dimensions
8 7/8 in. long,
6 3/4 in. high,
4 3/8 in. deep.
Weight 6 3/4 lbs.

Housed in a handsome embossed leatherette case—with gold trimmings—in a choice of 4 rich colors, Ivory, Deep Green, Deep Red or Spanish Brown.

FADA RADIO & ELECTRIC CORP. Long Island City
NEW YORK

RADIO RETAILING

HOME ENTERTAINMENT MERCHANDISING

O. H. CALDWELL, *Editor*

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M. E. HERRING, *Publishing Director*
HARRY PHILLIPS, *Art Director*
P. WOOTON, *Washington*

DIVERSIFICATION *The Answer*

EVERYWHERE, dealers are asking: "What can I do to put my business on a sound basis?"

To this problem there is a logical answer. In radio sets—large and small,—in tubes, in servicing and in some radio specialty there will continue to be found many opportunities for profit.

But this is not all. It is evident that the electric refrigerator has become a permanent part of the radio dealer's stock in trade. Refrigeration, therefore, or some other major electrical appliance, plus store sales in the smaller appliances, will provide sufficient volume, during 1933, to cover expenses and return a worthwhile profit. The 1932 experience of hundreds of radio retailers proves that this is a statement of fact, not fancy.

DIVERSIFICATION is the answer. With the low price set here to stay and the general level of prices on all radio sales at new lows, we may as well face the truth: allied lines must be added and greater sales effort generated.

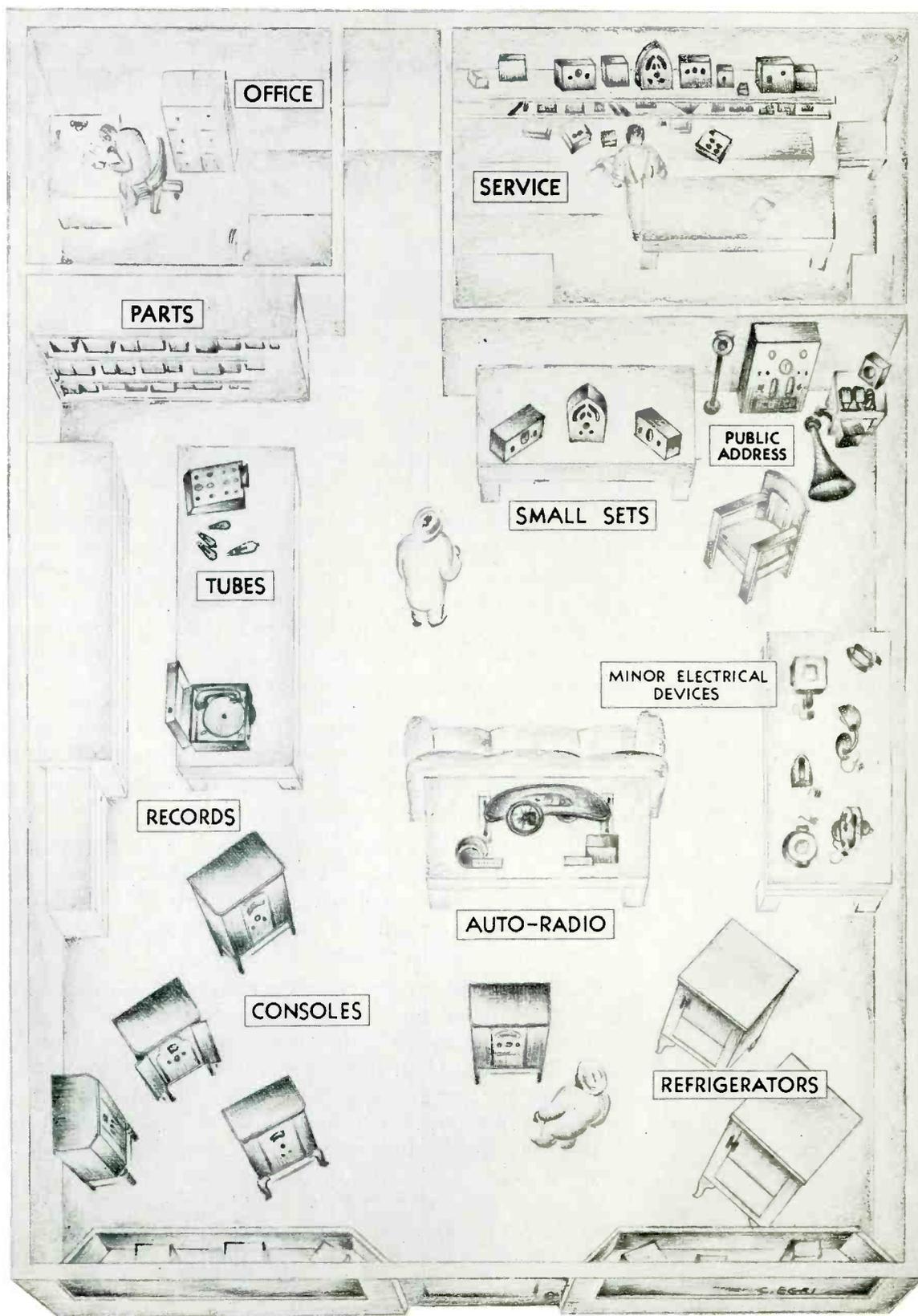
Let's forget, for a time at least, the "evils" of this industry of ours and dig in where we are. Let's concentrate on the intelligent direction of sales effort; on providing an adequate inventory of "demand" items for the store and on outside selling for those major products still in the pioneering stage.

With radio assuming the proportions of a mighty instrument for the education of the masses in political economy, the need for an operative set in every home, and for auxiliary radio reception in the business office and in the automobile, assures an ample sales opportunity for the progressive radio man. This situation, supplemented by the above suggested activities in allied fields, holds positive promise of profitable volume, even in these times, for the real merchandiser.

Ray V. Sutcliffe

MANAGING EDITOR

What the Wise Dealer



There's
Profit
in These
Lines
•
How many
of them
do you
push
?

will SELL This Year

By *Arthur P. Hirose* *Manager, Market Analysis Dept., Radio Retailing*

THIS business of retailing radio is in the midst of a marked transition. Items that once could be depended upon for volume and profit seem to have forgotten their role. But, fortunately, other products are presenting themselves to the hopeful radio dealer. Broadening his sales activities, electric refrigeration for example, has given life-sustaining volume to the dealer's business. But now a new year starts. Again the question pops up, "What shall I sell *this* year?"

Planning ahead pays dividends. To the radio retailer planning for this year's sales, the following suggestions are offered, together with a simple check list to organize that planning:

1. Analyze 1932 business, find out where you made and lost money
2. Check over the products—new and old—that you should sell or leave severely alone this year
3. Decide on a sales course and follow it

With these suggestions in mind, why not take a pencil, your books on 1932 business, and chart your sales course for the new year in the form below. Just a note of explanation before you start:

A radio dealer can't profitably push all the products listed and pictured on these pages. Each dealer should, however, weigh the merits of every class of merchandise that he might handle, in relation to his field, his selling facilities and other conditions peculiar to his own business. Make sure that your proposed 1933 plans and figures take in all the different classes of prospects and

customers you can economically reach. Ruthlessly chop off the kinds of products that you can sell only to "fringe" prospects at high sales cost. Take into consideration the seasonal sales characteristics of home radio, auto radio, refrigeration, and other items. Remember, too, that certain products are best sold in the store to customers who come in, other merchandise is best adapted to specialty or outside selling, while still other items tie in with service, installation or repair work. Look at your competition. Perhaps you can specialize on some products neglected by other dealers in your vicinity.

When jotting down your bogey of time and energy to be spent pushing each item, glance at the typical store here pictured. Ask yourself if each item can be made to pay for its investment, not only in time, energy and cash, but in display space, in stock space, and in advertising bills.

Remember, too, it isn't enough to list the kinds of goods you're going to sell in 1933. Successful sales are made by balanced application of energy—or of *ergs*, to borrow one of the fashionable phrases of Technocracy.

The reason many radio dealers haven't made money selling certain merchandise is that they somehow never got around to pushing these products, after the merchandise was bought and stocked. Now's the time to decide what goods are worth selling in your business this year, how much profit they ought to bring, how much effort or urge should be put behind each item, and then—follow that plan.

Check Sheet for Charting Your Business Course

	Percentage of Energy Expended in 1932	Proportion of Losses from This Activity	Proportion of Profit from This Line	In 1933 I Will Divide My Time in This Manner
Specialty Selling Lines				
Consoles and Combinations.....%%%%
Automobile-Radio.....%%%%
Public Address Work.....%%%%
Electric Refrigerators.....%%%%
Other Major Appliances.....%%%%
For Store and Service Activities				
Small Radio Sets.....%%%%
Radio Tubes.....%%%%
Radio Parts and Accessories.....%%%%
Radio Servicing.....%%%%
Phonographs and Records.....%%%%
Incandescent Lamps.....%%%%
Smaller Electric Appliances (Heating devices, table ware, electric clocks, fans).....%%%%
Side Lines I am Especially Fitted to Sell.....%%%%

Then Ask Yourself These Questions

Did I do enough outside selling last year? ... What percentage of my customers bought items other than radio? ... Am I covering my commercial field carefully enough? ... How many store prospects got away? ... Why? ... Do I carry enough "convenience" items? ... Are stocks adequate? ... What did my service department sell besides its time and knowledge? Is concentration on a few products I personally like my weak point or do I spread myself too thin? ... Do I follow, or lead, competition?

What licked me last year — price competition I didn't know how to overcome, wrong merchandise, downright laziness, effort misapplied or lack of financing knowledge? ... Why did I show a profit—luck, in line with the popular trend, the right product, economies, hard selling, out-thinking the prospect, etc. ... Was my profit in proportion to the effort it cost me? ... What special advantages have I that I can turn to good account? ... Are my lines so balanced as to take care of seasonal slumps and surges? ... Am I stocking enough products to insure sufficient gross volume to give me the net profit I must have to justify remaining in business?

"ROLL YOUR OWN"

How Dealers Burgess and Mudge Sell Motor Car Sets

HOW does one of the leading dealer-distributors of automobile-radio sets in the great Southwest merchandise its wares? Sifted from the customary—and necessary—promotional procedures, such as general publicity, aggressive salesmanship, demonstration cars and expert servicing facilities, three original ideas fall into the hopper:

"Sorry, your auto-set looks good to me, but I'm thinking of buying a new car," says many an otherwise hot prospect to the Porter Burgess Company, Dallas, Texas. This alibi is shattered into a hundred jig saw pieces with this rebuttal proposition:

"We offer such a man a *free transfer* of his auto-set from his old car to his new one, provided he purchases the new car within sixty days from date of original installation," states

IN TEXAS

President Burgess. "It's one of the biggest helps my men have in closing tough cases," Mr. Burgess continued. "It

makes a good impression and convinces him that we must have excellent installation and servicing facilities."

Sales idea number two: At the 1932 State Fair, Burgess demonstrated the ability of the modern automobile set to withstand the constant vibrations and other abuses to which it is subjected in actual use. Its radio-equipped demonstrator car was driven about the fair grounds constantly. At the Burgess booth special signs called attention to the sturdy construction of the radio chassis. Means were provided whereby one of these sets, mounted on a "bumping machine" was subjected to violent, mechanical abuses—at the same time it continued to reproduce the program of the hour in full beauty of tone and volume.

Special publicity is achieved through spot announcements on the morning "Early Bird" program of station WFAA and by means of a huge illuminated sign which dominates the roof of the Porter Burgess garage and sales room at the corner of Jackson and Preston Streets, Dallas.

IN Flint, Michigan, Walter Mudge, who has sold and installed over 150 auto-radio sets to date, stresses the importance of making a noise-free installation. "I have observed the methods of others," he told our local correspondent, "and tried several plans myself, but I have been most successful in simply giving great care to each installation and depending on each job to advertise my work. A car with a perfectly operating radio will attract attention anywhere."

IN MICHIGAN

Mr. Mudge, whose ripe experience cannot be ignored, claims that the radio dealer should install each auto set, as well as sell it, "Because, frequently, the profit on the shop work is greater than on the merchandise. It gives you an added margin with which to meet competition."

"Roll Your Own!" That's the slogan *Radio Retailing* gives the radio industry for its 1933 auto-radio campaign . . . and that's the policy Mudge advocates. His chief demonstrator-automobile is equipped not only with an interior speaker but has an *outside* reproducer for use when the car is parked in some strategic attention-getting location.

Here are the outstanding sales stunts which have produced for Mr. Mudge:

He gives a strong guarantee that each installation job

Note the large illuminated sign which surmounts the auto-radio sales and service rooms of the Porter Burgess Company, at the three-way intersection of Commerce, Jackson and Preston streets, Dallas, Texas



will be noise free and that the outfit will "stand up and deliver" for a full year.

His demonstrator car is constantly in operation.

Has installed six sets in a like number of Flint taxicabs.

"Runs down" the address of every traveling salesman who headquarters in Flint. "My best bet is the man who must travel long distances in his car."

Cultivates the acquaintance of sales and service managers of automobile agencies. "These men frequently



'ROLL YOUR OWN'

Walter Mudge, who heads the Road-ola Auto-Radio Co., Flint, Michigan. Mr. Mudge believes in Radio Retailing's slogan, "Roll Your Own." His car carries two speakers—the extra one for demonstrations outside the automobile, when parked

are approached by prospects for an auto-set. Most car agency men still prefer to let a specialist handle the radio equipment end of the game. This, at least, is the sentiment here in Flint—one of the country's leading automobile centers."

Other interesting observations from this successful merchandiser of automobile-radio equipment:

"I have learned enough by the trial-and-error method to convince me that this new field deserves serious attention, especially from the man who is now doing general service work and from the radio retailer who wants to develop a market his competitors are neglecting."

"Automobile-radio cannot be sold in a display room; the prospect must be shown that it actually works and works well on the road. My demonstrator car, with its eight-tube Motorola and inside and outside loud speakers, is my real place of business."

"The point of interest for the radio merchant is that auto-radio is not a gamble but a new product which offers substantial profits for the man who is willing to devote to it the necessary time and attention."

Another interesting indication of the hold auto-radio has obtained on the average citizen is seen in the tabulation of 800 persons at an Elks' Circus held recently.

In a prize drawing contest conducted in connection with this affair, each participant was required to answer the question: "What is the next electrical device you contemplate purchasing?" Twenty per cent specified, "a radio set for the automobile."

Auto Show Survey Verifies Growing Demand for Radios

6% of Cars Antenna Equipped

WHAT is the automobile industry doing about auto-radio? Well, for one thing, it is equipping practically all of its closed cars with built-in antennas. For another, 18 automobile manufacturers have contracted with radio makers of auto sets for special radio apparatus, designed to fit their cars and for factory installation when specified by the car buyer. This number represents 62 per cent of the motor car manufacturers exhibiting at the thirty-third Annual National Automobile Show last month in New York City.

Public interest in auto-radio is decidedly on the increase, according to the comment of the sales managers in charge of the exhibits. Averaging the estimates of these executives, it would appear that at least one car in every 25—selling for over \$800—will leave the assembly line with a radio set installed, or that this equipment will be supplied by the local car dealer shortly after it reaches his show room. This radio equipment will be listed as "optional," to be specified by the buyer, at an added cost. "And many more want radio and would specify it if they had the price," said the salesmen interviewed.

All of which indicates good business prospects for the

(Please turn to page 34)

Auto-Radio Policies of the Motor Car Industry —as Expressed at the Automobile Show

Exhibitor	Have Closed Cars Built-in Antennas	Have You Your Own Set* for Installation on Order?	Price Installed	Do You Supply Your Dealers with a "Trade-Marked" Set?	No Factor Policy Customer's Choice
AUBURN.....	Yes	No	.....	No	x
AUSTIN.....	No	No	.....	No	x
BUICK.....	Yes	Yes	\$75	Yes	..
CADILLAC.....	Yes	Yes	87.50	Yes	..
CHEVROLET.....	Yes	Yes	59.50	Yes	..
CHRYSLER.....	Yes	Yes	59.50	Yes	..
CONTINENTAL..	No	No	.....	..	x
DE SOTO.....	Yes	Yes	59	Yes	..
DODGE.....	Yes	Yes	59	Yes	..
ESSEX.....	Yes	No	.....	No	x
FORD.....	(?)	Yes	49.50	Yes	..
FRANKLIN.....	Yes	No	.....	No	x
GRAHAM-PAIGE.	Yes	No	.....	No	x
HUDSON.....	Yes	No	.....	No	x
HUPP.....	Yes	Yes	\$55 to \$89	Yes	..
LA SALLE.....	Yes	Yes	87.50	Yes	..
LINCOLN.....	Yes	Yes	.....	Yes	..
MARMON.....	(?)	Yes	.....	Yes	..
NASH.....	Yes	Yes	\$59 to \$89	Yes	..
OLDSMOBILE....	Yes	Yes	65	Yes	..
PACKARD.....	Yes	Yes	89	Yes	..
PIERCE-ARROW.	Yes	No	.....	No	x
PLYMOUTH.....	Yes	Yes	59.50	Yes	..
PONTIAC.....	Yes	Yes	65	Yes	..
REO.....	Yes	No	.....	No	x
ROCKNE.....	Yes	Yes	59.50	Yes	..
STUDEBAKER...	Yes	Yes	75	Yes	..
STUTZ.....	Yes	No	.....	No	x
WILLYS-O'LAND	Yes	No	.....	No	x

*Approximately 60 per cent of the sets contracted for will bear the special trade-mark of the car manufacturer. To date, no automobile company has announced that it would manufacture its own radio set.

Call for a Showdown



It's the Way to SELL the TUBE REPLACEMENT Shopper

says

John C. Sampson

*Chairman, Technical Committee
St. Louis Radio Trades Association*

IN THE maze of methods and outlets by which and through which radio tubes today are being merchandised (?) the technically trained radio dealer is playing the part of the goat. Why do so many tube replacement prospects leave the store of the conscientious dealer without making a purchase? It is because he cheerfully and supinely renders, without charge, any tube-testing service asked of him—by Tom, Dick and Harry—and then permits said “prospects” to gather up their collection of tubes and make the actual purchase of replacements from some cut-price artist down the street. This, at least, is my answer and it is based upon an actual experience which I had last week when I personally shopped 20 dealers.

I carried with me a set of nine tubes, four of which needed to be replaced. In not one instance was I given a convincing reason why I should purchase new ones *right then and there*. Not one dealer placed me under obligation—as was his right—to “put up or shut up” just as soon as he discovered the first defective tube. In any of these calls I could have taken advantage of the valuable information the dealer gave me and gone out and

bought the necessary replacements at a lower price elsewhere. And yet that information, and that tube tester, cost the dealer hundreds of dollars to acquire.

All of which leads me to the point of my story; namely that the technically trained dealer has a right—and should demand—value received for the expert service he renders. His superior tube knowledge is his stock in trade—the only means he has whereby to meet the price competition of his less well-informed drug, jewelry, department, auto and what-have-you competitors. He must *cash in* on this advantage. How? By calling for a “show down”—politely, tactfully, but nevertheless firmly—just the moment he runs across the **FIRST** wornout tube.

What do I mean by “showdown” selling? Perhaps this idea can best be presented in the form of two sales conversations. First, the typical tube selling technique as it is now conducted:

Mr. Jones walks into the store with a bag of tubes.

Mr. Jones: “Do you test radio tubes here, free?”

Dealer: “Certainly. Kindly step this way.”

The dealer finds that Jones has brought him eight tubes. Because of many sad experiences testing tubes and making no sale, he goes about his task in a half-hearted manner. Little does he realize that this testing process could be made his greatest source of revenue.

Dealer: “As you see, Mr. Jones, I have tested all your tubes and find that you need a new 224 and a new 280.”

Jones: "What tubes do you handle and what will they cost?"

Dealer: "We handle the Exyzee, a nationally advertised, reliable brand. The price of the 224 is \$1.65 and the 280 is \$1.05."

If Jones reads the papers he knows that this dealer is quoting lists but, he reasons, why should I pay such prices when I can get them down the street at forty off? So he says, "Thanks. Sorry, but I haven't that much money with me right now. I'll be back tomorrow."

And that "tomorrow" never comes, for this particular dealer. Twenty minutes of valuable time wasted—and only himself to blame for this lost sale.

The Right Way to Sell the Tube Replacement Shopper

Maybe I am unduly emphasizing the need for placing a premium on one's technical knowledge and equipment as a means of meeting cut-price competition on tubes. In my opinion, however, nothing is of greater importance than that of having a definite plan for *closing the tube sale at the time the first defective tube is encountered*. The ethical dealer must fight back on this tube-test deadline. The following is the right way to sell replacements:

We will assume that the prospect has asked to have his tubes tested. The first thing our live dealer does is to ask Mr. Jones what kind of a radio set he has and

just how it is operating. Naturally something is wrong. The dealer may find out that the trouble is within the set itself. By discussing this subject *before* the tubes have been tested he paves the way for a service call.

Let us suppose, however, that he starts the tube tests. The moment a defective tube is located the dealer reaches into his tube stock and selects a duplicate of the type which has gone bad. After explaining why the 224 should be replaced he tests the new duplicate and shows Mr. Jones how much better it is. He says it will be necessary to buy this new one and that it will cost \$1.65.

Now if Mr. Jones means business he will have to declare himself. He knows that there are other tubes to be tested and if he would obtain further expert advice he must meet the dealer half way. At this point the dealer must get Mr. Jones to agree to buy this tube or to admit that he will "think it over." If he says okeh he proceeds with the testing until the next defective tube is encountered and then repeats the "showdown" sales operation. If he balks there is nothing to be gained by testing, free, the rest of his collection. His action is definite proof that Mr. Jones is a time-waster, using the dealer for a good thing.

Try this new arrangement on the next tube customer who enters your store. You will find that not only will you sell more tubes, at a legitimate profit, but that you will gain the respect of even the closest of buyers. It works here in St. Louis and it will work elsewhere.

Moral: You cannot pay rent and salaries on prospects.



"Tube Week" Goes Big in Wilkes-Barre, Pa.

INDICATIVE of the volume of sales in other radio products, which will result when a skillful canvasser bases his initial story on the tube testing offer, is seen in the experience of Radio Sales & Service, Wilkes-Barre, Pennsylvania. Note that it was a service man who hung up this enviable record.

"We labeled this drive 'Tube Week,'" states M. Mastraff, of this concern. "Our service man was given a Ford coupe, a batch of Arcturus tubes and a test kit, also a list of 250 set owners. He made 243 actual contacts. Here is what happened: sold 135 tubes, 18 new sets and two used ones. Furthermore he secured 20 live leads, four repair jobs, three refrigeration prospects and arranged to put in 10 aerial installations. Quite a hefty showing, don't you think?"



"Sound Test" Demonstration Doubles Tube Sales in a Month

AN increase of better than 100 per cent in replacement sales, due to featuring a "sound" test for tubes, is reported by the Universal Radio Service Company, Toledo, Ohio. Owner E. J. Davis featured, in a vivid window display, a tube tester which indicates radio "noise." Rather than use trite phrases, Universal centered its stimulation of tube testing around the idea of sound indications.

"The noise test," he writes, "is a newer and more

dramatic method of attracting prospects. A loudspeaker is a feature of the instrument we use. After the tube is preheated, a dial is turned and the tube is tapped. If it is microphonic, a sound roars forth from this speaker. When the customer has noisy tubes this ear test will cause him to quickly buy new ones."



This is the striking window display, used by the Universal Radio Service Company, Toledo, Ohio, to attract, by the "sound" test method, replacement prospects to its store. Note the loudspeaker, which blares forth its noisy warning when a tube is microphonic.

1932's Best

A Creed for the Modern Service Man

The MODERN service man will be alert to his unusual opportunities to SELL—as well as to service

During 1933 he will do these things:

See that every home he visits has the best radio equipment it can afford

Always demonstrate the superior reception qualities of new tubes

Devote his spare time to creating business—by personal canvass, use of the telephone and every other tested promotional method

Use only those parts and tubes whose quality has stood the test of time

Create respect for his profession by his appearance and conduct

Sells For Other Dealers

Service Editor:

I am one of many servicemen who is becoming more sales-minded. Here are some of the ideas that netted me a profit last year.

I tied up with a dealer as a salesman and get 10 per cent for all the sets sold. If the repair bill is large when I am called in on a job I can often induce the customer to buy a new set. There are thousands of old models in use that would have been discarded long ago if demonstrated against new ones.

A similar arrangement has also been made with an electrician. He gives me a commission on all wiring contracts sold and I give him one on radio repair business turned over to me. Electricians often get phone calls for radio service and I in turn often receive orders for wiring. Many radio installations are in violation of the Fire Underwriter's Code. A number of people have been induced to have their's put in order to make sure their insurance will hold.

Many midgets do not have line voltage controls. I carry a burned-out transformer with me, show it to customers when they have such sets, and often sell fuse installations by arguing that a blown transformer may some day cost them \$15 or more. 75 cents is the usual charge for the work.

Tone controls and midget mikes are selling well just now. I demonstrate them wherever I get the oppor-

tunity. A police-call adapter which plugs into the detector socket also goes well as people have been hopped up on the subject by national advertising.

Small rubber cups which can be placed under the cabinet legs are a good item and have brought in a few dollars. I explain that these not only keep the set from marring the floor finish but also protect the delicate tubes from shocks. Profit on these little items is small, but added up at the end of the year means a lot.

FRANK J. BILLIAMS

Premium Photos Sell Tube Kits

Editor, "Radio Retailing":

Mounted, 8 by 10 inch aerial photographs of the Notre Dame campus, offered free with each complete set of tubes purchased, increased my replacement business 50 per cent last year.

I advertised the combination in both local newspapers and gave out 12 pictures with as many tube kits the very first week, sales averaging 7 tubes per customer. Then I had a few hundred 3½ by 5½ inch picture postcards of the campus made up. Two-thirds of the view was "whited out" by the photographer and this message lettered in: "A brilliant mounted 8 by 10 inch copy of a full view of the Notre Dame campus free with the purchase of a complete set of new tubes for your radio. . . . J. P. Kennedy Radio Service, Phone 3-2414." These were then sent though the mails as postcards to my old customers. Twelve per cent responded with orders.

This is the old "something for nothing" advertising appeal. I believe a good shot of our incoming President would go. So would an aerial view of almost any city. And a serviceman might try tying up with a local photographer to offer a picture of the customer's own home with each complete tube kit purchase.

J. P. KENNEDY

Offers Reward for Failure to Repair

Radio Retailing:

Here is the advertising stunt that put the most dollars in my pocket last year. I made up 10,000 six-by-nine handbills which read: "\$50 REWARD. . . if I fail to repair your radio for \$1 (less materials). Free Inspection. Call today for expert repairing of radios, washers, vacuum cleaners and anything electrical. Dunphy's Radio Service is endorsed by leading dealers. Dial 2-0411."

The circulars bore a half tone picture of myself and were so printed that they looked, at first glance, like a missing person reward offer. They accomplished what ordinary ads had failed to do. . . . bringing in enough business to more than cover their cost in the first few

Service Sales Ideas

weeks. We sold enough tubes alone to make the stunt profitable and two months after the distribution of the handbills their effect on service business is still felt.

The names of customers obtained through this campaign will be used as a mailing list for the next one.

JAMES R. DUNPHY



Continuous Direct-Mail Ads Click

Sales Idea Department:

There has been so much cut-rate advertising on service in the last few months that the usual newspaper classified ads and telephone directory listings do not pull. So we have been using direct-mail as our best bet.

We have purchased a small Multistamp outfit, with which we can duplicate cards rapidly. These we imprint with semi-personal or seasonal messages. Some of the best advertising slants were: "Is your volume control smooth and quiet?"; "Is your speaker correctly adjusted?" Just enough is written to make people think that perhaps their set is not all it used to be, no more.

We go through our whole list of customers and send each one a message, 25 to 50 being mailed each day. They cost us 1c. apiece as we use government cards and the Multistamp looks like typing. The mailings are continuous and when we reach the Z's we start over again with a new story. We keep a chart to see what calls are obtained through the cards and in the last 10 days have billed \$80.70 to 8 people in the B's, the cards producing this business costing us only \$3.50. The labor of stamping and addressing this particular bunch took about two hours.

Business is not booming by any means but continuous direct-mail advertising with carefully worded postcards is keeping us going.

M. G. GOLDBERG



Serviceman Stages Window Broadcast

Editor, "Radio Retailing":

A series of "broadcasts" staged in the display window of my service shop resulted in much business at low cost last summer. Many repair jobs have been traced directly to this stunt and while cold weather has made it necessary to temporarily discontinue the activity I intend resuming it again in the spring.

A portable public address amplifier was used in the window, which was made to look like a miniature studio. Cane chairs and a table were borrowed from a furniture dealer in return for an advertising announcement during the program. A sign in the window attracted attention during the week and assured a large "street attendance" when the performance began at 7 p.m. Saturday evening.

Two mikes were used and were given prominent positions in the window to draw attention.

A small ad placed in the paper asking for talent resulted in enough local people being interviewed for all our broadcasts. I was fortunate in obtaining the services of Ed Cleary, a radio salesman who had plenty of experience organizing home talent theatricals and during the performances he advertised my service and offered people who entered the store free log-books. 350 were given away in one hour on the first occasion. They carried my name, address and phone number.

The crowds drawn by our Saturday window broadcasts varied between 500 and 1,500 people, at times completely blocking my street, with many occupying grandstand seats atop parked cars. The total cost of each broadcast never exceeded \$50. Local talent performed just for the fun of it. At one time we induced Otto Gray and his Oklahoma Cowboys to join our program from the local vaudeville theatre in return for announcements advertising their appearance. A local dance-band also performed for the advertising. Hill-billy songs, sung to banjo accompaniment, seem to go best here.

V. W. HODGE



Limerick Contest Keeps Shop Busy

Service Editor:

The best sales idea used by my shop to increase repair business in 1932 was a "Limerick Contest." I ran several 2½- by 2¾-inch ads in a local newspaper offering a complete set of new tubes for the best last line to complete the Limerick appearing with each ad. Contestants were asked to note the name and age of their radio when submitting lines.

One of the best Limericks printed was worded as follows:

*Percival Jonathan Rett,
Owned a weak, noisy radio set;
It's tone made him nervous,
He called FREED'S RADIO Service*
.....

We were careful to include our name in each Limerick so that people who worked on them would automatically memorize it. The newspapers reported the names of the winners free of charge, which gave us more publicity. And we wrote to all contestants in the following vein: "Thank you for the interest you showed in the Limerick we ran in the *Times* last week. Although your entry was not awarded first prize it was very clever and in appreciation of your efforts we are awarding you a new detector tube. For identification, kindly bring this letter to our store not later than Saturday of this week." This brought many new customers to the shop.

Although the contest has been concluded for more than two months we still trace service calls to it.

PAUL G. FREED

Electric

Rrefrigeration



Reviewing Last Year's Trends.

Applying the Lessons Learned

to 1933 Merchandising

LAST year a well-known Chicago radio dealer sold 52 electric refrigerators, during a six weeks' period, at an average price of \$178—gross volume \$9,256. His average sale per radio receiver, during 1932, was \$44. This is not a special case. It is cited as fairly representative of a situation which now faces every radio dealer in the country. The midget set has brought down the average unit radio sale to a point where "something must be done about it." Dollar volume must be maintained if the dealer would extract a living profit from his business. How? Obviously by handling products whose aggregate selling prices will produce that necessary gross.

Even the radio specialist, today, must seriously consider broadening his merchandising activities. Whither shall he turn? Does refrigeration still remain his best bet? We think so—but let the reader judge for himself.

Nineteen thirty-two may properly be considered the radio industry's first real "shakedown" year with its new running mate, electric refrigeration. Did the refrigerator pull its share of the load for the radio dealer who drove this team in double harness last year? Before citing case experiences let's see what happened to refrigeration during 1932.

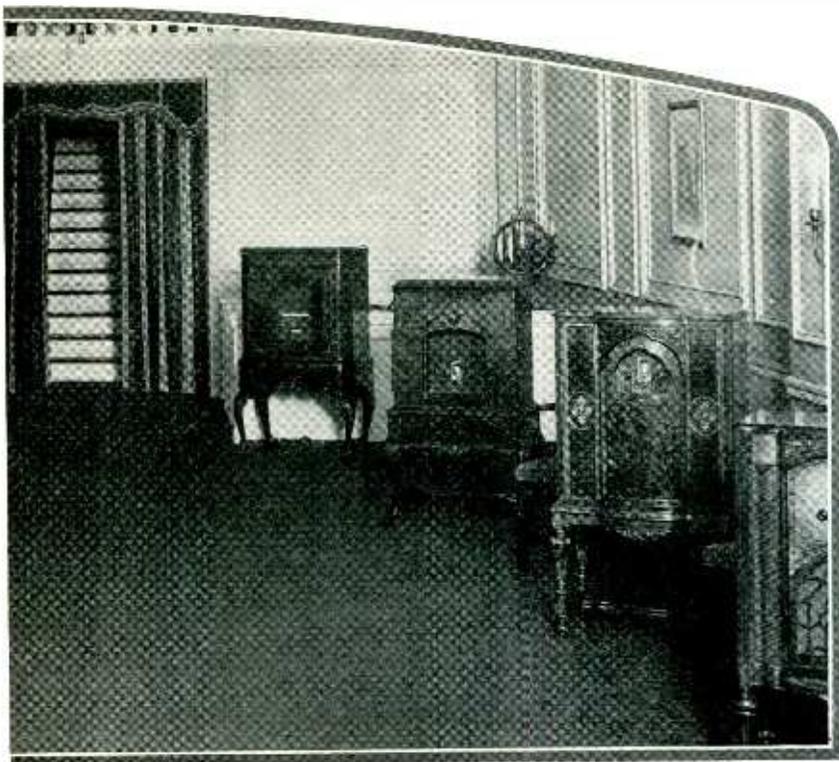
TOTAL sales of domestic electric refrigerators, for last year, were off approximately 20 per cent in units and 37 per cent in dollars volume from the 1931 high. Here is the statistical picture for the past three years:

YEAR	NUMBER SOLD	RETAIL VALUE	AVE. UNIT PRICE
1930	775,000	\$197,625,000	\$256
1931	965,000	\$236,425,000	\$245
1932	770,000	\$146,860,000	\$194

Four out of every five wired homes in the country still are without this great aid to housekeeping. There are 4,300,000 electric refrigerators now in use. This number represents 21.6 per cent of the total of 19,874,500 wired homes throughout the United States. Mathematically speaking, this market is 78.4 per cent unsaturated.

Last year marked the introduction of the \$99.50 "price leader," followed by greater participation of large "dumping" outlets—such as department stores—in this "merchandising opportunity"; the cheapening, in certain instances, of product; retrenchments in national advertising appropriations; and the entry of additional set manufacturers into the refrigeration game. Following is the roll call of these radio-refrigeration makers: All American, Crosley, Clago, Fada, General Electric, Majestic, Sparton, Stewart Warner and U. S. Radio and Television.

Reference was made a moment ago to the price situation. Lower lists naturally have opened new and wider markets for the electric refrigerator. At the same time more manufacturers and more dealers have sharpened the edge of competition. Thus gross dollars business has been hard to maintain at former volume—and profit



ALLY OR HANDICAP



has become a matter of conjecture. All of which means that new sales methods must be undertaken this coming season and greater sales pressure developed.

SO MUCH for the general picture. What of its effect on the fortunes of the radio dealer? Last month we interviewed a representative number of radio merchants whose experience with refrigeration has been sufficiently well grounded to lend weight to their opinions as to its future possibilities as a major complementary line.

"Refrigeration has been a God-send to the radio dealer." These ten words summarize the attitude of the radio trade, replying to *Radio Retailing's* query, "What has refrigeration meant to you?"

In a broad sense the action of the Colorado Radio Trades Association when, on January 11, it changed its name to the Colorado Radio and Refrigeration Association, is indicative of the collective trend of thought. Other radio organizations have taken similar action.

Only two radio dealers indicated that they would discontinue their electrical appliance activities this year. As a whole, the reports were optimistic and declared for a policy of more intensive sales effort during 1933.

The following expressions are typical of the general tone of the answers to our questionnaire:

"Would have been out of business were it not for refrigeration."

"My 1932 refrigeration sales met my expectations. Only 15 per cent below those of '31."

"Can convert many radio service calls into refrigerator sales."

"I carry all 30-, 60- and 90-day notes myself. One and two-year contracts are handled by Radisco."

"When we first started to sell refrigerators we thought they would be a nice side line. Now we realize that the two items go nicely together and we will probably always sell both."

"In two years selling the electric refrigerator have taken back but one."

"Will canvass the city thoroughly next month, using the coupon book plan."

"Cannot too emphatically declare against the longer than one year service guarantee."

"Refrigeration was a great asset to our business the past year. It exceeded our expectations. Are laying plans for an extensive drive to start next month."

"The only change in our selling policy for the coming year will simply be for greater outside effort. Refrigeration is the one product that can be sold in this manner."

"Last year was our first with refrigeration. Didn't do so well, largely due to the fact that we are in a poor neighborhood. However, will push it harder this year."

"We carry our own paper—a powerful selling argument to a public grown weary of the ways of finance companies."

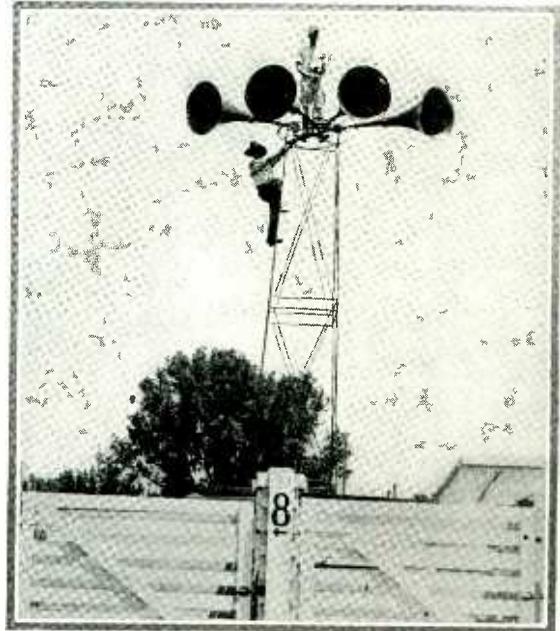
"Just as soon as we feel that the manufacturers have stabilized their prices will go ahead with a more extensive program on refrigeration."

From the preceding it is evident that the radio dealer who would sell electric refrigerators this year must commit himself wholeheartedly to a policy of specialty selling—in the home. He should keep out of this game unless he is willing to burn the midnight Mazdas, to wear out shoe leather and to use the telephone and all other tried and proven methods of digging up prospects and of securing their signatures on the dotted line.



(Above) A Mulnix rental in action on a Colorado track
 (Right) Clever "knockdown" tower of steel tubing

"How We 5 DEALERS



By W. L. Hartzler

Hartzler Public Address Systems
 Indianola, Iowa

I SELL radios, refrigerators, batteries and tires. These take up most of my time in the fall and early spring. I have, however, been in the public address business as well since 1927 and operate eight complete outfits mounted in trucks, several being removable for inside work. Each outfit has a complement of two or three men, depending upon the nature of the contracts. Small jobs usually require an announcer, while customers for larger jobs generally prefer to have their own master of ceremonies.

PROSPECTS Rentals are chiefly to fairs, political clubs, picnics, rodeos, homecomings, ball games and other outside gatherings. We do little ballyhoo advertising on the streets, although one or two theaters and stores have given us work of this character. From July until November fairs keep us busy. In the winter conventions indoors are the chief source of business. Two of the trucks are routed south.

SELLING I have a salesman on the road constantly to drum up business. Some is also obtained through a booking agency in the east. Very little work is done in Indianola and although I am only 15 miles from Des Moines, with a population of 150,000, I find that even this sizeable city is too small to keep me busy. We cover the entire central portion of the United States. Many folders and booklets are distributed and my salesman attends all possible meetings of state fair associations, many contracts being obtained at such times.

CHARGES For ballyhoo advertising we charge by the hour, while conventions, fairs, etc., pay a flat sum per job. Investment varies from \$700 in a small truck

to \$10,000 for a large Western Electric amplifier job.

BALLYHOO Advertising rentals are a thing of the past with us, although at one time they were important. Cities everywhere are ruling against street advertising and I am also inclined to think that it is about worked-out anyway.

By F. C. Millard

Western Sound Products Company
 Pittsburgh, Pa.

O UR chief business is engineering; installing and maintaining sound reproducing and transmitting equipment. This takes in radio distribution systems, music reproducing devices, public address, communication instruments, recording and similar work closely allied to this field. Public address rentals constitute a considerable portion of our volume at present. We do no retail radio work.

PROSPECTS We use our mobile p.a. equipment for quick set-up jobs at outdoor events such as bridge openings, dedication ceremonies, etc. Some street advertising is also done but our investment was not made primarily for this purpose. This method of advertising

Handle P. A. Rentals”

ANSWER THESE QUESTIONS—

can be used by anyone who has a product which is sold to the general public. The retail merchant may want to use it, also the wholesaler or manufacturer, but users should in all cases be interested in reaching a large number of people of all classes.

SELLING There is no cut-and-dried method of going after rental business. It is all more or less up to the individual organization and its facilities for contacting prospects.

CHARGES Our charges for equipment are based upon actual operating costs plus an estimated amount for breakage, depreciation, etc., plus a good return on our investment. We have found that a rate of approximately \$45 for seven hours' work, which includes truck, p.a. equipment, records, operator, announcer and driver is as low as we can go and still make a satisfactory profit. This rate is subject to discounts for long-term contracts, 20 per cent frequently being deducted when a truck is hired for two months of consecutive daily work.

BALLYHOO An organization whose activities are quite extensive might reasonably expect to obtain 15 per cent of its gross from “ballyhoo” rentals. The idea of advertising through the medium of public address is a good one but can be rapidly run into the ground by cheap, inferior equipment. It is not enough that the equipment put out a signal which can be heard above street noises at 200 or 300 feet. A really effective amplifier should be heard inside buildings, theaters, homes and the higher floors of tall buildings and also on streets other than that on which the truck is moving. With such equipment the large majority of people reached never see the truck and signs are wholly unnecessary. Clear, natural reproduction that will entertain and not antagonize listeners is absolutely essential and we would rather welcome some good high-class competition.

By Nathan D. Reiss

*Public Address Systems
Detroit, Mich.*

OUR business is divided into six separate departments. These, in order of importance, are: (1) Public address sales. (2) Radio station broadcast service. (3) Large p.a. rentals. (4) Small p.a. rentals. (5) Sound truck service. (6) Radio service.

Broadcast stations requiring remote-control service hire us to install, on lease, complete speech input panels.

ONE

Who are the best rental prospects?

TWO

How do you sell this service?

THREE

What are the usual charges?

FOUR

How important is “street advertising”?

We maintain the equipment and also furnish the operator. This service is available either portable or permanent and relieves the stations of responsibility and investment. Public address rentals, however, constitute about 25 per cent of our gross volume.

PROSPECTS In the summer we solicit picnics, field meets, conventions, rallies, boat races, lawn fetes, street dances, moonlights and fairs. In the fall, football games, conventions, banquets, and many other indoor events. Hotels, halls, auditoriums, clubs, industrial plants and churches are especially good prospects.

SELLING We have a very complete mailing list of regular p.a. users and prospects, to which we mail monthly. Personal contacts are made, in addition, and our reputation brings in many new jobs.

CHARGES Charges vary with the character of each job. They depend upon the type of equipment required, the engineering service, time consumed in making the installation and taking it down, and operation. About 95 per cent of our rates are based on these factors. Special rates are given to regular users. I recall one large job which brought a necessarily high rate: A p.a. system was required for voice amplification in a banquet hall, using two condenser microphones for the master of ceremonies. We also provided a carbon microphone for emergency use. Overhead a suspension of 5 trumpet horns was required and on the stage a huge horn equipped with two dynamic speakers. In a control room we had two racks, incorporating a volume control

(Please turn to page 34)

News of the Month

February, 1933

New York, N. Y.

EDITOR OF RADIO RETAILING STARTS SECOND SERIES OF BROADCASTS

Campaigns again on national hook-up urging listeners to "See Your Radio Dealer and Have Your Set Checked"

With the cooperation of the Electrical Association of New York, Orestes H. Caldwell is now broadcasting his second series of radio talks and interesting scientific demonstrations to the radio listeners of America. It will be recalled *Radio Retailing* launched its campaign "Rejuvenate Your Radio Set for Better Reception," on the air last April. As a result thousands of set owners called upon their local radio dealers and requested that their set be "checked up."

This second series, having the same objective in view, started with an address, January 5, over WABC and 70 Columbia affiliated stations. The subject was, "How to Get the Most from Your Radio Set."

During this talk, Mr. Caldwell

demonstrated Radio's latest aid to the medical profession. (See illustration and caption.)

This second series of 15 sales promotional talks will be divided equally between the Columbia chain and those of the National Broadcast Company. Thus the entire country will be blanketed.

During January, and continuing throughout February and March, Mr. Caldwell will again explain that the tonal quality of the programs which leave the transmitting stations is practically perfect and that most of the unsatisfactory tonal distortion is the result of obsolete or "run down" receiving sets.

Many dealers and servicemen are again reporting the sales-stimulating effect of this campaign—many new sets also having been sold as an indirect result.



Egypt "Radio-Minded"

Modernistic headquarters of the Egyptian Wireless Company, Alexandria. "The only up-to-date radio showroom and service station in Egypt," claims Clarion.



"Music Hath Charms to Sooth—"

The first of Editor Caldwell's series of 15 national broadcasts in the interests of better reception was delivered over the Columbia network of 70 stations, Thursday evening, January 5.

His "attention-getter" was a demonstration and description of "musical therapy" developed by the American Telephone and Telegraph Co. The patient is soothed by appropriate music heard through head phones, to shut out the conversation of the doctors and the harrowing noises incident to an operation. The use of a local anesthetic is rapidly gaining ground even for major operations. With the aid of music to distract the patient, the chief objection to a "local" anesthetic has been overcome.

Looking over the apparatus during the studio demonstration, from left to right, are: D. W. May, chairman, Radio Div., Electrical Assoc. of N. Y. and president of D. W. May, Philco distributors; Clarence Law, president N. Y. Electrical Assoc. of N. Y.; Dr. A. F. Erdeman of Norwegian Hospital, and O. H. Caldwell, Editor of *Radio Retailing*.

TUBE PRICES AGAIN REDUCED

Radiotron, Cunningham, Hygrade-Sylvania and Eveready Lower Lists

JANUARY 30—As we go to press, word is received from four leading tube manufacturers announcing reductions in the list price of a majority of current types of tubes now in active demand, averaging 26 per cent.

E. T. Cunningham, president of RCA-Radiotron, and George Throckmorton, president of E. T. Cunningham, Inc., released itemized list price reductions on 30 tubes, effective Jan. 30. These reductions range from \$2.25 on the type '10 to 10c. on the '82, '56 and '47.

Effective also Jan. 30, Hygrade-Sylvania Corp., exactly met Radiotron's new price levels, publishing a new price list on a large majority of its 51 tubes.

Not to be outdone, National Carbon Co., Eveready-Raytheon Division, came out with a price list which also agrees with the new schedule of recommended retail prices suggested by the three aforementioned companies.

At closing time, these are the only tube concerns reporting with new prices. It is understood, however, that other makers contemplate similar announcements.

The following is a partial list of the types affected:

Type	Former Price	New Price	Reduction
24A	\$1.65	\$1.40	\$.25
35	1.65	1.50	.15
36	2.80	1.80	1.00
37	1.80	1.40	.40
38	2.80	1.60	1.20
40	3.00	2.00	1.00
42	2.00	1.60	.40
48	3.75	3.00	.75
80	1.05	.90	.15
81	5.20	3.50	1.70
25Z5	2.75	2.00	.75

F. D. Pitts Takes Larger Quarters

To Distribute New Grunow Refrigerator in New England

On February 1, F. D. Pitts Co., well known Boston radio jobber, occupied its extensive quarters at 566 Commonwealth Ave. This expansion is in anticipation of an increased activity due to the fact that it has been appointed exclusive distributor for practically all New England for the new Grunow refrigerator and has been granted the N. E. territory by Sentinel for its new a.c.-d.c. radio. For Grunow, Pitts' territory will embrace the entire states of Maine, New Hampshire and Rhode Island; Massachusetts with the exception of Berkshire County; and Connecticut with the exception of Fairfield County.

In conjunction with its aggressive plans beautiful display rooms have been leased in the National Bank Bldg., Hartford. Arthur Goodwin will again manage this Connecticut branch.



FRANK PITTS



R. H. CAMPBELL

Campbell Returns to Silver-Marshall

Robert H. Campbell, formerly district sales manager for Silver-Marshall, Inc. contacting dealers in Illinois, Indiana and Wisconsin, has again associated himself in the same capacity with the reorganized Silver-Marshall Company.

Mr. Campbell will work out of the Chicago office and will be supported by four salesmen.

Crosley Holds Convention

A one-day convention, held last month at Cincinnati, served as the occasion for introducing to Crosley distributors new models in both radios and refrigerators to be manufactured by the Crosley Radio Corp. The many jobbers who came from all over the United States to view these offerings were highly enthusiastic.

Three new sets were featured, ranging from a four-tuber at \$14.99 to a 12 tube console listing at \$59.99. Also a six tube automobile outfit with B-eliminator for \$49.95.

The new Crosley refrigerator will embody unique design factors and at a price well within the limits of today's average pocketbook.

Tobe Sponsors Prize Contest

A \$2,000 prize contest is now in full swing, under the sponsorship of the Tobe Deutschmann Corporation, Canton, Mass. Hundreds of awards, including interference locating instruments, will go to the lucky

MAJESTIC'S \$30,000,000 DAMAGE SUIT AGAINST RCA SETTLED BY CONSENT

An amicable agreement has been reached for settlement of the litigation pending in the U. S. District Court at Kansas City, Mo., between the Grigsby-Grunow Co. and the Radio Corp. of America, General Electric Co., Westinghouse Elec. and Mfg. Co. and others. By mutual consent, Grigsby-Grunow releases RCA, et al, from all claims involved in this litigation.

"The Grigsby-Grunow Company has executed the standard supplemental radio receiving set license. The standard radio tube license has also been issued to the Grigsby-Grunow Co. for a period of five years with an option to extend it for an additional five-year period," states David Sarnoff, president of Radio Corp.

"The Radio Corporation, General Electric and Westinghouse companies obtain licenses, with the right to license others, under the radio patents of the Grigsby-Grunow Co.

"Satisfactory disposition of this litigation has been effected in order to avoid further economic waste and business disorganization. Taken with the termination of other litigation it should tend further to harmonize and stabilize conditions in the radio industry and should prove advantageous to the public and trade generally."

Mr. Grigsby Also Issues Statement

B. J. Grigsby, president of Grigsby-Grunow Co., Chicago, commenting on the formal dismissal of this historic \$30,000,000 triple damage suit, instituted in June, 1930, expresses his satisfaction as follows:

"This action, reached by agreement of the parties following the recent consent decree of dissolution of the Radio Combination in the suit of the United States Government at Wilmington, Delaware, marks the successful conclusion by the Grigsby-Grunow Co. of its fight to obtain better terms and conditions for the radio industry in its operation under the patents of Radio Corporation and its associated companies."

Mr. Grigsby points out that among the modifications made by the Radio Corporation in its licenses have been the opening of the field of export, the elimination of royalty on furniture, the reduction of practically one-third the royalty on both sets and tubes.

Mr. Grigsby further states that, "in the interest of obtaining an adjudication, by the Federal Court, of the validity and scope of the tube patent situation, the litigation brought by Radio Corporation against Majestic Distributors, Inc., at Hartford, Conn., would be left for a final determination by the Court. Arguments were made and briefs submitted in this case several months ago, and the decision of the Court is now awaited."

"We now look forward to a new era in radio manufacture, which will permit a closer co-operation between the independent licensees and the Radio Corporation as the main licensing body," concludes Mr. Grigsby. "We believe the radio industry can now proceed and develop along sound lines, from embarrassment of harassing litigation."

radio dealers and servicemen whose letters on the subject of solving condenser problems meet with the approval of the judges. The contest closes May 31. O. H. Caldwell, editor of *Radio Retailing*, will be one of the solons.

Atwater Kent announces the appointment of George A. Lyons as territorial sales manager, assigned to the Southwest district, succeeding H. T. Stockholm, resigned.

Ralph Austrian Sales Manager for Emerson



MR. AUSTRIAN and, more recently, of Kolster International. Under the guiding hand of such a leader the sale of Emerson sets is expected to reach even greater volume during '33 than that satisfactory showing registered for 1932.

Ralph Austrian, nationally known radio executive, has joined the Emerson Radio and Phonograph Corporation, New York City, in the capacity of sales manager. Prior to this connection Mr. Austrian headed the radio sales department the Westinghouse Electric and Manufacturing Co.

NOW—Radio Signals Transmitted on a Beam of Light



Radio's latest—broadcasting on a beam of light! This interesting experiment was tried in New York last month. Miss Vaughn de Leath and orchestra, from the tower of the Chrysler Building, originated a program which was carried to the sixteenth floor of the Columbia Broadcasting Company, a half-mile away, on a powerful ray of blue light, projected by a searchlight. There the rays were received by a photo-electric cell, transferred into audio frequency, and broadcast in the regular manner to a waiting world.



SERVICE MEN'S FIRST CONVENTION VOTED AN OUTSTANDING SUCCESS

*Exhibits and Lectures of Educational
Value—Almost 1,000 Paid Admissions*

THEY came, they saw, they profited, to paraphrase Cæsar. Last month witnessed the invasion of Chicago by a regiment of servicemen and service school students—1,000 strong. They gathered at the Hotel Sherman, Jan. 9-11, for three days of technical discussions, interchange of ideas and eye-shopping of the latest developments in service gadgets. This convention, under the auspices of the Institute of Radio Service Men, was pronounced a highly successful affair, "a serviceman's paradise," quoting our Chicago representative . . . "with plenty of well known engineers to talk to, addressed by specialists, intelligent booth attendants and a raft of free service materials to take back home." New style ohmmeters and noise filter systems were outstanding exhibits.

The Monday session opened with an informal discussion of servicing problems, conducted by Lee Taylor, chairman of the Chicago section, IRSM. An interesting talk by Harold L. Olesen, sales engineer of the Weston Electrical Instrument Corporation, followed the opening remarks of Kenneth Hathaway, executive secretary of the Institute. John Church, sales engineer for the Jensen Radio Manufacturing Corporation, pointed out the advantage of multiple speakers in overcoming the blasting caused by the normal resonance point of single speakers. John F. Rider advocated coordinated effort among servicemen to raise their merchandising standards.

"Advertising Ideas That Get Business for Servicemen," was the title of one of the most interesting of Tuesday's talks. It was delivered by J. P. Kennedy, contributing editor to *Radio Retailing*. Many requests were received for copies of this talk, which was based on an article by Mr. Kennedy which appeared in the May, 1931, issue of this magazine. Digests of some of the speeches which received favorable comment will be found elsewhere in this issue.

Sidelights of the Convention

Parts manufacturers reported signing up jobbers—an indication of renewed interest in handling parts by the old line radio wholesalers.

The parts houses were well represented. "Should indicate to RMA the necessity of continuing their annual exhibit and con-

vention," declared a well known western dealer.

Time of the year not the best. May would have been better for the automobilists.

More set manufacturers should supply servicemen with official circuit diagrams, as did Majestic.

Free ice-cream was given away by one exhibitor . . . went over better than the hard stuff, which was noticeable by its absence.

Three members of the fair sex sat through all the lectures and apparently relished the talks as much as the men.

Western Television (Echophone) displayed the only television outfit . . . have an eight-tube midget job with a list of \$75.

General Radio and Confidence exhibited bridge type ohmmeters. Radolek had the biggest ohmmeter, a special Hickok with an 8½ inch face.

The \$1 admission charge eliminated the riff-raff.

A survey of 200 service men indicated that at least 75 cents an hour should be charged for service calls.

Himmel Pushing Emerson Appoints Three Additional Field Men

Since his appointment as manager of Emerson sales for the mid-western territory Robert Himmel, better known as "Bob," has been making the fur fly. As head of Hudson-Ross, Inc., Chicago, he

now announces the appointment of three additional field representatives: Don Murry for the states of Illinois, Michigan and southern Wisconsin; Ben Burns for Indiana, and Joseph Malott to push Emerson sets in Ohio and Kentucky.

Carl Linxweiler President of Franklin Radio Corp.

The Franklin Radio Corporation, a subsidiary of the Joyce-Cridland Company, Dayton, Ohio, has elected Carl Linxweiler, also of Dayton, as its president. Mr. Linxweiler formerly was export manager of the Radio Division of General Motors. At present he conducts a radio export factor under his own name. This activity will be continued.

For the present Franklin, under Linxweiler's experienced direction, will develop small sets for the export market and will shortly enter the domestic field with a line of popularly priced models based on the practical and thoroughly technical training of its new president.

Eleven Dealers, Combined Capitalization, \$15,000,000

\$15,000,000 is the combined capitalization of eleven of Howard Radio's newly franchised dealers. These are: Lyon & Healy, Chicago; Jenkins Music Co., Kansas City; Grinnell Bros., Detroit; Schmoller & Mueller, Omaha; Denton, Cottier & Daniels, Buffalo; Strouss-Hirshberg, Youngstown; Herb & Myers, Sandusky; C. H. Yeager, Akron; Armstrong Furniture Co., Memphis; Spear & Co., Pittsburgh, and Rosenbaums, Pittsburgh.

Paul S. Weil Sales Manager for Insuline

The appointment of Paul S. Weil as national sales manager of the Insuline Corporation of America is announced by President Samuel Spector. An intensive sales campaign will be inaugurated immediately by this concern, to be featured by the announcement of several new items.

ZENITH \$25,000 AWARDS ANNOUNCED

James Fitzgerald, Union City, N. J., Wins \$3,000 Prize

LAST MINUTE NEWS—James E. Fitzgerald, of the Hyde Music Company, Union City, N. J., wins the capital prize of \$3,000 for submitting the best specimen talk on how to sell a Zenith Automatic radio set. His lucky employer, the Hyde Music Company, gets a check for \$1,500 and Anthony Mirabella, jobbers salesman employed by the Newark Distributors, Inc., is the recipient of \$1,000. The two latter parties were recognized, in accordance with the terms of this \$25,000 contest sponsored by the Zenith Radio Corporation, Chicago, because of the part they played in helping and encouraging Mr. Fitzgerald. District Manager Edward Hefter, aided by the Mayor of Union City, officiated at the feature presentations of the checks.

The Zenith contest was designed to stimulate interest in superior salesmanship, applied to moving the higher priced, quality receivers. In this, its originators pronounce it an outstanding success.

Charles Sully, of Neal, Clark and Neal, Buffalo, N. Y., won the second prize of

\$1,000 and Arthur Henry, Good House-keeping Shops, Detroit, the third prize.

Seventy-three other checks were mailed the ambitious ones by E. F. McDonald, president of Zenith.

Majestic-Wrigley-Lucky Strike Sales Campaign

With one of the most arresting series of sales promotional pieces it yet has been our pleasure to review, Grigsby-Grunow is announcing to the trade its unique advertising campaign which ties in with the products of Wrigley and Lucky Strike. Elaborate pamphlets feature Majestic's recently announced new models—and lead, in clever manner, directly to the pencil (actually provided, together with a stick of gum and a cigarette) and that signature on the dotted line.

RCA Victor announces the appointment of G. Harold Porter as vice-president in charge of its West Coast activities, with offices at Hollywood, California.



All of Which Means

—that Fada sets scored a bull's eye, when exhibited at the Luxembourg Exposition last September

Douglas Smith, Sales Manager for Clarion, Chicago

Douglas C. Smith, formerly with United States Radio and Television, has been selected to direct the sales destinies of "Clarion," according to Ross D. Siragusa, president of the Transformer Corporation of America. Mr. Smith replaces E. J. Dykstra, resigned.

The Business Building Side of Servicing

Digest of an address delivered before the Institute of Radio Service Men at its recent convention in Chicago

By
J. P. Kennedy

Contributing Editor, Radio Retailing

FOR the average serviceman the cost of securing a customer is so great that the profit from the first call is absorbed by the preliminary expense involved. What does this mean? It means that *your profit must be made from future calls.*

How can these future calls be assured? In three ways: *First*, by giving each customer *honest service* on that initial visit. *Second*, by making it *easy* for him to *remember you*. *Third*, by using *original advertising* copy that reaches each customer at *regular intervals*.

By honest service I mean good parts, quality tubes, sound advice—as well as a workmanlike job. Pay attention to details. Don't leave half a dozen screws out of the bottom of a shield pan just because three will hold it in place. Pay attention to the dial setting before you return the chassis to its cabinet. See that it reads according to the customer's preference. Another thing, offer, whenever possible, a better replacement part than the original. If a $\frac{1}{2}$ mfd. 200-volt condenser in an r.f. filter circuit blows, it is your duty to advise the set owner to use one rated at 300 volts . . . offer him an original but advise a better part.

I believe in two grades of tubes, the best you can buy and the cheapest. Tell the customer the difference, but recommend the standard tube at its full list price. Don't discourage the purchase of cheap

tubes from the cut-price stores. If you think back over the work you did last fall it is likely that 20 per cent of your business resulted from persons who had had cheap tubes fail them.

THE *second* thing to consider is appearance. It isn't a crime to dress well. Your most humble customer will not criticize you for having on a clean shirt, a conservative necktie, and a respectable suit of clothes. It's all right to carry overalls in your car if there is work to be done that justifies that apparel, but let the customer first see you in a more favorable light.

Be courteous to your trade. It doesn't cost you anything to wipe your feet before entering a home. I had a man working for me a few years ago who made a lasting impression on a customer by asking her to move a fern near the radio he was working on for fear the touch of his hands would harm the plant. It seemed that that woman had been trying to impress upon her husband the fact that this fern must be handled delicately, for several years, without success; then a common radio serviceman exhibited an understanding of her love for this fern by asking her to personally move it out of harm's way. She has remembered that act for the past three years—and the company who employed such a careful workman.

Cultivate your language: To an educated person, bad English is insulting. Listen to good speakers on the radio. The language used by men like Walter Damosch, Olin Dahms, and most prominent clergymen, are fine samples of English. Listen to good English, read it and cultivate in yourself the use of our mother tongue correctly. The reward for this will be repeat calls to the most desirable customers on your list.

NOW these points we have discussed deal only with holding your trade and insuring yourself of repeat calls. Let us take up the second phase of this subject, the business of getting the first call to a new customer through advertising.

Consider the available mediums of advertising: advertising that will reach the greatest number of people most easily. Your newspaper is that medium. There are three forms of publicity you can secure in a newspaper. The first is display. To my mind display space without an illustration is wasted effort. Every newspaper offers a free service of supplying simple illustrations. Set and tube manufacturers supplement this with splendid mats from which catchy illustrations can be reproduced in a newspaper.

The second type of newspaper advertising is the classified announcement under the heading of Radio Service. Here is an opportunity to be original. Use copy that has more appeal than that of any competitor.

The third class of newspaper advertising is free. It corresponds to the publicity theaters seek in conjunction with their current shows. It must be news material. Everything out of the ordinary you do should be written up and submitted to the newspapers.

In the printed form advertising, a good two color illustrated penny postcard with a brief message of less than fifty words is about as good a medium as you can get at a moderate price. It rarely brings you new business but it is fine in sustaining contact with old customers. I never let six months go by without reaching all my old clients with at least one good penny postcard. It forms a friendly reminder of a service rendered and the promise of future good service.

NEW MERCHANDISE

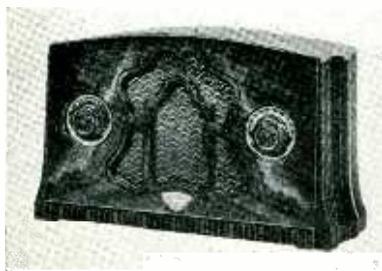


Radio Secretaire

Combining a radio receiver with a place for personal possessions, the "Radio Secretaire" of the General Fireproofing Co., 500 Fifth Ave., New York City, fills a number of needs. The set is a superheterodyne, has dynamic speaker, built-in antenna, variable tone control.

Over the set is a sliding shelf, which provides a writing desk. Just below this shelf the radio is mounted in a removable drawer. In the lower compartment is a large filing drawer and a smaller drawer. Both are equipped with the index filing folders. There is also a roomy compartment 5½x12x11 in. closed by an unsuspected panel and locked by a secret catch. Two other compartments, the one hidden, and the other open to view, suggest a multitude of uses. The inside of the door has pockets for letter-heads, envelopes, etc., and is locked by means of a three-figure combination lock.

This set should appeal to doctors, dentists, students, etc., but may well be used in the home or club. It lists at \$69.75 completed with R.C.A. tubes and tax paid. Tubes used 2—57's, 58, 47, 80.—*Radio Retailing*, February, 1933.



RCA-Victor Model R-27

RCA Victor Models

A new low-priced Bi-Acoustic model featuring Tonalite control system by which "you see what you hear—and control it," and a handy little "personal" type of radio operating on a.c.-d.c. are being offered by the RCA-Victor Co., Inc., Camden, N. J.

The Bi-Acoustic model, R-90, which will sell for \$110, is practically equivalent in performance to the R-78 receiver plus the Tonalite control system. It uses two of the newly developed Pentode output 2A5s. Beneath the chassis is placed two tone equalizers to counteract cabinet booming and resonance.

Model R-27 is a tiny sized type of personal radio housed in a cabinet slightly more than six in. high, and about 11 in. wide. It is priced at \$19.95. It will operate on a 100 to 125 volts a.c. or d.c.—*Radio Retailing*, February, 1933.

Seven Majestic Sets

With a price range of from \$19.95 to \$139.50, the new Majestic line of the Grigsby-Grunow Co., 5801 Dickens Ave., Chicago, Ill., comes on the market. Among the features in this new line are the G-59 power output tube, the latest development in a seven prong tube; class "B" amplification; synchro-silent tuning; delayed a.v.c., etc. Every set is a superheterodyne, using the Majestic spray-shield tubes and super-dynamic speakers.

Model 371, small Gothic table set with five tube chassis using the G-59 tube, is \$19.95.

Model 373 a slightly larger 5-tube table model with illuminated glass insert in the center panel is \$27.50.

Model 331 is a 7-tube table set with a.v.c. and tone control, using the G-59-B tube. \$43.95.

Model 336 is a 7-tube console with a.v.c. Uses the new G-59-B tube. \$49.95.

Model 393 also a console, is an 8-tube job, with class "B" amplification, and using the new type G-53 tube for greater power and output. \$69.50.

Model 363 is a Gothic Cathedral console with a pipe organ front panel with illuminated glass insert. It has 11 tubes, synchro-silent tuning, a.v.c., visual-lite tuning dial, Mercury vapor rectification, new resistance-coupled push-pull output and uses the G59B tube. \$89.50.

Model 344, is a Sheraton console, with 11-tube chassis. It has twin 12-inch dynamic speakers and lists at \$139.50.—*Radio Retailing*, February, 1933.



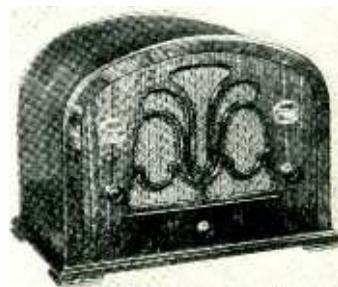
Majestic Model 373

Fada "MotoSet"

Fada Radio and Elec. Corp., Long Island City, N. Y., has entered the auto-radio field with its 8-tube superhet at \$79.50. Tubes used: 3—F239, 1—F237, 1—F85, 2—F89, and a F98. A special design in the remote control eliminates all high frequency wires between the remote control and chassis, thereby, it is claimed, eliminating motor noise pickup. This set has full a.v.c., self-locking worm drive tuning condensers, silent electric power supply of the vibrator type housed with the set, automatic relay. It is easy to install as the chassis and power supply are in a single case. Complete noise suppression equipment is furnished.—*Radio Retailing*, February, 1933.

Carter 32-volt B Power Supply

To eliminate B batteries on radio sets operated on 32-volt farm lighting plants, the Carter Genemotor Corp., 361 W. Superior St., Chicago, Ill., has brought out a new Genemotor. It plugs into a 32-volt socket and supplies 135 and 180 volts d.c. with voltage taps. The machine is self-contained, requires no special wiring, needs no shielding, no oiling, no tubes. The retail price is \$24.50. The model No. is 3280A.—*Radio Retailing*, February, 1933.



Atwater Kent Model 246

Atwater Kent New Sets

A 5-tube a.c.-d.c. table set with dynamic speaker, a.v.c., and using the new 25-Z5 rectifier tube is being placed on the market by the Atwater Kent Mfg. Co., Philadelphia, Pa., this month. The dimensions are: 11 in. wide x 7½ in. high x 5 in. deep. The tuning range covers one police channel and the regular broadcast band. Known as Model 155, it carries at list of \$24.90.

Model 555 is a treasure chest type of receiver for a.c. Also a 5-tube super. It has 6 in. dynamic speaker, a.v.c. \$34.90.

Model 246 is the rounding top table set, illustrated. It has 6 tubes in a full sized "Compact" chassis. \$39.75.

Model 448 console has silent tuning and uses double-diode-triode tube. It is an 8-tube job in the six-legged console and lists at \$79.75.

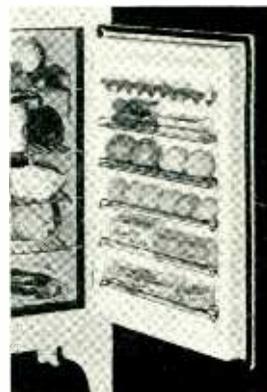
Models 756 and 636 auto-radio sets, described last month, are also a part of the new line.—*Radio Retailing*, February, 1933.

Crosley "Shelvador" Refrigerator

An entirely new development in refrigerator design—the Shelvador—marks the opening on the Crosley's Radio Corp.'s (Cincinnati, Ohio) second year in electric refrigeration. The Shelvador is a recessed door providing ample space for storing less bulky foods, such as butter, eggs, fruits, bacon, etc. Thus considerably larger storage space is available without enlarging the refrigerator, an advantage in this day of kitchenette apartments.

Outside of this new feature, alterations such as larger vaporator, changes in the capillary tube installation and the use of a metal support rather than ply wood at the bottom of the unit are to be found in the new models.

There are three models, all Shelvador equipped and with automatic interior electric lights. The 3½ cu.ft. model retails at \$95; 4½ cu.ft., \$105; 6 cu.ft., \$130. These prices include tax, delivery, and installation costs.—*Radio Retailing*, February, 1933.



Radio Retailing, February, 1933

Delco 32 D.C. and 110 Volt A. C. Superhets

The 32-volt d.c. set of the Delco Appliance Corp., Rochester, N. Y., has 7 tubes (2-39, 2-36, 2-38, 1-37), a.v.c., tone control, electro-dynamic speaker. These sets become completely electric by use of the Delco electrifier which is standard equipment. It comes in the "Country Home" six legged console with two speakers and the "Farm and Fireside," a smaller console with one large speaker.

For 110 volt a.c. a nine tube set is supplied. Tube complement: 2-58, 2-57, 56, 55, 2-47, 80. This set has electro-dynamic speaker, noise suppressor and comes in the same cabinets as the 32-volt sets.

It is known as the "World's Fair" in the six-legged console with twin speakers, and as the "Airliner" in the smaller console.—*Radio Retailing*, February, 1933.



Freed Export Model

Three midget type sets designed expressly for export, carrying the trade name "Freed-Eisemann," have been developed by the Freed Television & Radio Corp., 22-17 41st Ave., Long Island City, N. Y. They may be bought in either chassis or midget form.

Model 72 is a 7-tube a.c. set, with superheterodyne circuit, using the 2½-volt tubes. Frequency range 550-1500 k.c.; a.v.c.; dynamic speaker. This chassis can be supplied with universal transformer or standard voltage transformer.

Model 86 is an all-wave superheterodyne. Wave length range, 18-550 meters. Tube line-up is: one each of 280, 247, 55, 56 and 57 types and three 58's.

Model 76 long wave chassis has a dual wave length band; 200 to 500 meters; 1,000 to 2,500 meters. Tubes used are the same.—*Radio Retailing*, February, 1933.

Sparton Refrigerators

New cabinets with many new features mark the presentation of the 1933 line of refrigerators announced by the Sparks Withington Co., Jackson, Mich.

Seven models are included and the new prices, f.o.b. Jackson, are: L-46, \$114.50; L-57, \$156.50; L-72, \$183.50; Deluxe 75, \$241.50; Deluxe 88, \$259.50; Deluxe 106, \$364.50 and Deluxe 127, \$410.

Among the new features are spring suspension for the mechanical units, greater shelf area and faster freezing in addition to a water cooler, vegetable crisper and egg basket as regular equipment on most models.—*Radio Retailing*, February, 1933.

Replacement Transformers

From the stock of the Standard Transformer Corp., 850 Blackhawk St., Chicago, the service man and dealer may obtain what is known as "exact-duplicate" replacement transformers for all makes of radios. They are called exact duplicates because they have the same physical and electrical characteristics as the original power transformers of the set. No re-fitting or re-drilling is necessary and each unit is packed with a planograph designating the connecting leads according to a standard color code.—*Radio Retailing*, February, 1933.



Eveready Improved Air Cell Battery

National Carbon Company, Inc., 30 E. 42nd St., New York City, announces a new and improved Eveready Air Cell A-battery which, unlike the original air cell, is prepared for service by a single filling of water. This is made possible by placing a reservoir over each of the two cells, large enough to hold the extra water needed to compensate for the settling which takes place as the solid chemicals dissolve, thus making the second filling unnecessary when installing. This insures its going into service with the solution at the correct level, avoiding the occasional premature battery failure which occurred with the original battery, resulting from neglect to add water the second time.—*Radio Retailing*, February, 1933.

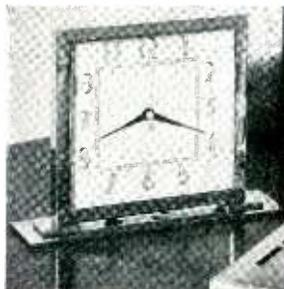


ICA Universal Mascot

Insuline Corp. of America, 23 Park Place, New York, N. Y., is making the Universal "Mascot" a.c.-d.c. sub-midget measuring 8 in. long x 6 in. high x 4½ in. deep. This set utilizes the latest type dynamic speaker and one each of the 36, 37, 99, 43 and 25Z5 tubes. Will run on a.c., d.c., auto or boat storage battery or 32-volt farm lighting system. The list price is \$25.—*Radio Retailing*, February, 1933.

Electric Clock

Herman Miller Clock Co., Zeeland, Mich., announces its Model 4795 electric alarm clock. The case is chromium finish, and the size of the clock is 6½ in. high, 8 in. wide by 3 in. deep. It retails for \$5.—*Radio Retailing*, February, 1933.



Philco Auto-Radios

Three all-electric superheterodyne auto-radios are now included in the line of the Philadelphia Radio & Television Co., Philadelphia, Pa. Model 6 Philco-Transitone is \$59.50; Model 9, with one more output tube, is \$89.50; and Model 12, the same output as Model 9 but designed for 12-volt electrical systems as used in larger motor boats, yachts and motor buses, is \$89.50. These are consumer, installed prices.

A Philco dynamotor complete in water-proof steel container for electrifying battery sets lists at \$21.95.—*Radio Retailing*, February, 1933.

Dewald "Dynette"

The Dewald "Dynette" of the Pierce-Airo, Inc., 520 Sixth Ave., New York City, is a five tube model with dynamic speaker and built-in aerial. For use on a.c. or d.c. The dimensions are: 5 in. wide x 7 in. high x 11 in. long. Weight 7 lb. Tube used: one each of the 36, 38 and 39 types and two 37's. List price, \$25.—*Radio Retailing*, February, 1933.



Pioneer Battery Sets

Two console and two midget type battery receivers are obtainable from the Pioneer Products Co., Plano, Ill.

Model M-33 superheterodyne has diode detector, a.v.c., pre-selector and band-pass filter, tone compensation, and it uses the new 34 and 33 tubes, two of the former and one of the latter together with a 32 and 3-30's. The set can be operated on an air cell battery, or 2-volt storage battery or 4 dry cells wired in series parallel, or one cell of a regular 6-volt storage battery may be used. The price complete with tubes, less batteries, is \$64.85.

Model C-33 console is \$79.35.

Model M-60, t.r.f. set, uses three variable mu's, two 230's, and a 233. It may be used on any of the above combinations of batteries. As a mantel type the price is \$55.95, as a lowboy, \$69.20. Both prices less batteries.—*Radio Retailing*, February, 1933.

DeWald "Motortone" Auto Set

A single unit superheterodyne all-electric motor car set with the trade name DeWald "Motortone" has been brought out by Pierce Airo, Inc., 510 Sixth Ave., New York City. There is only one unit to mount. Tubes used: 2-36's, 85, 87, 89, and P861. It has a.v.c. No cutting or marring of car to install—simply two wires to connect.—*Radio Retailing*, February, 1933.

Du-Wa Aerial Eliminator and Mike

To do away with an aerial, the Palmer Electric Mfg. Co., 307 Fifth Ave., New York City, is making the "Du-Wa" aerial eliminator designed also to reduce static and interference. It is easily attached and carries a list price of \$1.

A microphone can be obtained from this company. It may remain connected to the set and has a switch to cut out the radio program for one's own announcements.—*Radio Retailing*, February, 1933.



Ansley Dynaphone

An electric portable phonograph with self-contained amplifier and dynamic speaker can be obtained from the Ansley Radio Corp., 147 W. 23rd St., New York City. This instrument operates on either a.c. or d.c. by the same switching arrangement used in Ansley's portable radios.

Provision is made for use with a microphone as a portable p.a. system. Volume can be controlled from a whisper to auditorium intensity and tone may be varied to emphasize either the high or low frequencies.

The cover may be closed over record while playing. Record compartment in cover. The black or brown leather case measures 20x14x8½ in. and the weight complete is 30 lb. Price \$69.50.—*Radio Retailing*, February, 1933.



Mohawk Washer

Five new Mohawk washers have just been introduced by the All-American Mohawk Corp., North Tonawanda, N. Y. The new line is priced from \$59.50 to \$109.50 and incorporates several new features, notably the corrugated tub which gives a rubbing board effect and increases the turbulence of the water. The agitator is of the clover-leaf type of heavy aluminum.—*Radio Retailing*, February, 1933.

"Selector" Electric Card Shuffler and Dealer

The "Selector" electric card shuffler and dealer made by the Selector Corp., 80 Federal St., Boston, Mass., is a neat box which can be placed at the corner of the bridge table. It automatically shuffles and deals cards after each hand. The number of hands the Selector can deal runs up into the trillions.—*Radio Retailing*, February, 1933.

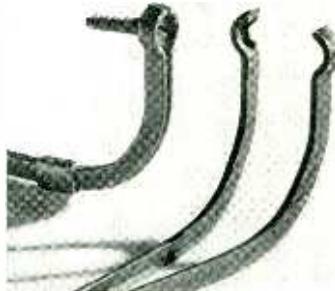
Fada Model 98

An open face lowboy console, Model 98, has been added to the line of the Fada Radio & Electric Corp., Long Island City, N. Y.

It is a 7 tube set with the RE chassis. The overall dimensions are 41½ in. high by 23½ in. wide, by 12½ in. deep. Intended retail price, \$66.—*Radio Retailing*, February, 1933.

Hawks Radio Tools

The holder for small nuts, bolts and screws, illustrated, is designed to simplify the work of the radio repairman who needs to replace small nuts, etc., in inaccessible places. The jaws firmly hold a machine nut or screw in place, leaving one hand free to run down the work with the screw-driver. The tool is instantly released when the screw is seated, and it is available in seven sizes and angles. It may be obtained from the Hawks Tool Division, Western Wholesale Radio Company, 1224 Wall St., Los Angeles, Calif.—*Radio Retailing*, February, 1933.



"Determ-Ohm"

The "Determ-Ohm" (so named because its chief purpose is to determine radio replacement resistor values) is operated by manipulating four direct reading dials, through which it is possible to obtain actual resistances ranging from 100 ohms up to 1,000,000 ohms in 100 ohm steps. The guaranteed resistance tolerance is plus or minus five per cent.

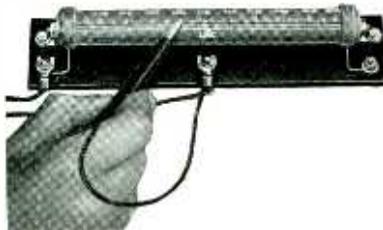
The Determ-Ohm may be connected directly to the set or radio circuit in order to find the proper resistance value required at the points of connection.

Other uses include the increasing of voltmeter ranges, as resistance bridges, as ohmmeters, as milliammeter resistances, etc. Ohmite Mfg. Co., 636 N. Albany Ave., Chicago.—*Radio Retailing*, February, 1933.

Pilot Miracle Mike

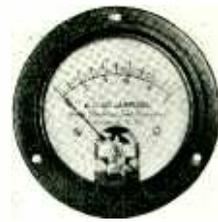
From the plant of the Pilot Radio & Tube Corp., Lawrence, Mass., comes announcement that this company is making a "Miracle" mike to be attached to the radio set to make your own announcements and broadcasts.

Each mike is packed in a colored container and comes complete with instructions and sufficient cord to reach to another room. The intended retail price is \$1.—*Radio Retailing*, February, 1933.



IRC Resistor Indicator

The I.R.C. "Resistor Indicator" is a calibrated 100,000 ohm variable wire wound resistor which the service man will find useful. Of its many uses the most important are: determination of value of defective resistors or of replacement resistors; and use as temporary voltage divider for tapping off fixed voltages from a supply. The useful range of this resistor may be extended by adding fixed resistors of known value in series with the resistor indicator. Thus by adding a 150,000 ohm fixed resistor in series, resistors up to 250,000 ohms may be checked. \$2.40. International Resistance Co., 2006 Chestnut St., Philadelphia, Pa.—*Radio Retailing*, February, 1933.



Beede Meters

A new line of D'Arsonval type of moving coil meters is being made by the Beede Electrical Instrument Co., Penacook, N. H. The improved design of the moving coil assembly permits a greater simplicity of construction. The meter is perfectly balanced in all positions and the moving system is exceptionally well damped.

Model 701 panel instruments—flush type—¾ in. in diam. (d.c. milliammeters—single range) range in price from \$4.75 to \$6, depending upon the range and divisions.—*Radio Retailing*, February, 1933.

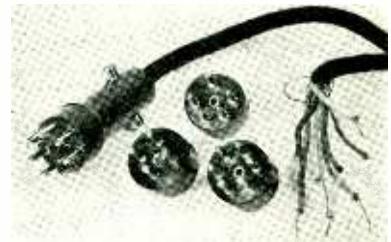
Wilcox-Gay Receivers

The sets of the Wilcox-Gay Corp., Charlotte, Mich., are the Cantata, 5 tube superheterodyne, of the "personal" type with phonograph jack and built-in aerial. Standard model is \$34 (200 to 550 meters), and the Hilo model is \$36 (75 to 550 meters).

The Coronet is a 7-tube set with a.v.c. in a six-legged highboy. \$59.70. The Corona with 10 tubes and dual speakers is \$84.

The Carillon midget lists at \$45.90. It is a 7-tube superhet with dual action a.v.c., built-in aerial, phonograph connection.

The Cameo is a small portable set which can be used in cottages, offices, and in any room in the house. As a standard model it is \$31. As a short wave model \$33.—*Radio Retailing*, February, 1933.



Alden Plug and Analyzer

Alden Mfg. Co., 715 Center St., Brockton, Mass., is making a No. 907-WLC seven prong latch-lock analyzer plug with a five foot eight wire cable, No. 976DS seven hole to six prong adapter, No. 975DS seven hole to five prong adapter and No. 974DS seven hole to four prong adapter. This new seven prong analyzer plug and cable together with the associate four, five and six prong adapters should be of intense interest to service men finding it necessary to revamp or make up new test equipment for the latest six and seven prong tube circuits.—*Radio Retailing*, February, 1933.

AKAformer System

Amy, Aceves & King, Inc., 11 West 42nd St., New York, announces that it is possible to operate from one to four receivers from one aerial with its AKAformer system. For one set the AKAformer kit only is necessary. For each additional receiver, a receiver AKAformer, type A-503, is necessary. For more than four sets the multi-coupler antenna system is recommended. The prices for complete kit and single units are: aerial kit type A5023 with 50 ft. shielded cable \$5; with 100 ft. shielded cable \$6; antenna AKAformer, type A-502, \$2.50; receiver AKAformer, type A-503, \$2.25; AKAfilter type F-600 (power line filter) \$5.—*Radio Retailing*, February, 1933.

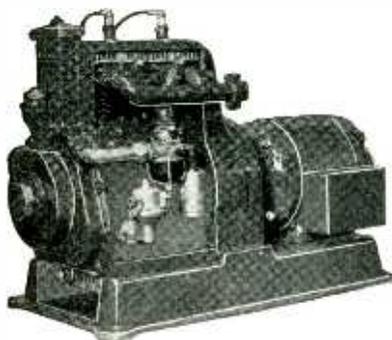
Telephone Conversation Amplifier and Other Products

To those who have difficulty in hearing ordinary telephone conversations, the engineers of the Universal Microphone Company, Inglewood, Calif., have perfected an inexpensive device which will amplify the sounds from the receiver to any volume desired. This is readily accomplished without disturbing wiring over the telephone.

This company has taken over the patents for the well-known "Radio Owl" which automatically turns the radio set or household device off at a two hour period or in shorter periods.

The transformer division has developed transformers covering the entire field from small, low priced replacement transformers to the larger power transformers used in radio transmitters.

A new lapel microphone is also available. It is of the two button type whereas previous models were of the single button type.—*Radio Retailing*, February, 1933.



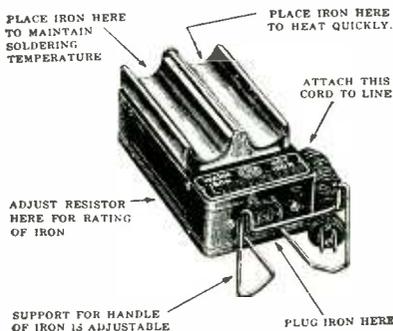
Onan A. C. Generators

The new a.c. generators of D. W. Onan & Sons, 43 Royalston Ave., Minneapolis, Minn., are larger in capacity and somewhat supersede the so-called farmer light plant but bring all the comforts of city electricity to those remote from power lines. From these generators, radio, water pump and refrigerator and other appliances can be operated. They are operated from gasoline, gas or distillate and generate 110-volt 60 cycle single phase alternating current. Two sizes. 1 KV, 1000 watts; and 2 KV, 2000 watts. Starting system, with remote control switches located anywhere desired, provide easy and convenient starting.—*Radio Retailing*, February, 1933.

G-M Soldering Iron Stand

G-M Laboratories, Inc., 1735 Belmont Ave., Chicago, have announced a new type of soldering iron stand that effects a saving of 30-40% in power consumption and overcomes many of the principal soldering troubles, it is claimed. By keeping the iron, when not actually being used, at just the right soldering temperature, the G-M stand corrects trouble resulting from overheated dirty irons and the tip of the iron will remain well tinned for weeks.

The stand has two cradles. When placed in the left hand cradle the iron receives only sufficient voltage to keep it at the minimum soldering temperature for immediate use. When the iron is either in actual use or placed in the right hand cradle, full line voltage is automatically applied to keep the iron up to temperature.—*Radio Retailing*, February, 1933.



Alden Adaptors

The new 25 and 30 volt tubes can be tested on your old tube tester by using the series lamp socket adapter the Alden Mfg. Co., 715 Center St., Brockton, Mass., has brought out. \$2.50.

Model 965-25Z5 adapter checks separately both plates of a 25 volt double plate heater type rectifier tube. Same price.

The service man or dealer can obtain from Alden a kit of parts which when wired will form the No. 950XYL adapter which enables any tube checker to test 47 different types of tubes. Testers not having the proper filament voltage available at the UY screen grid socket use the 954SGL of the base of the 950XYL.—*Radio Retailing*, February, 1933.

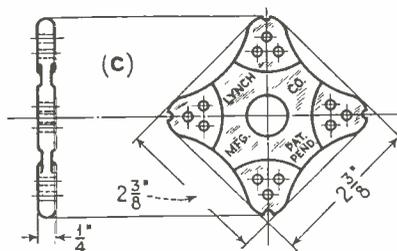
Diskadapt Turntable

The "Diskadapt" is a turntable to replace the old turntable on all makes of electric or spring-driven phonographs so that by throwing a lever both 33 $\frac{1}{3}$ as well as the 78 r.p.m. records can be played on an old phonograph. It can be easily installed. The simple mechanism is concealed beneath the attractively finished turntable disc. The list price is \$6. Made by the New Era Specialties Corp., 21 Spruce St., New York City.—*Radio Retailing*, February, 1933.



Aerial Eliminator

A device to eliminate man-made noises is being manufactured by the Dumont Electric Co., Inc., 453 Broome St., New York City. This device is said to reduce or eliminate static and the possibility of lightning stroke. \$5.—*Radio Retailing*, February, 1933.



Short Wave Antenna Block

Prevention of moisture accumulation and ease of threading wires are two of the advantages of the new Lynch transposition block of the Lynch Mfg. Co., 1775 Broadway, New York City. Reduced capacity is attained by the large center hole. These blocks are made of Lynchite which has a power factor higher than glass and is non-hygroscopic with high tensile strength.—*Radio Retailing*, February, 1933.

"Staticclear" Balanced Antenna System

The "Staticclear" balanced antenna system of the Clough-Brengle Co., 1134 West Austin Ave., Chicago, provides two balanced transformers, one for antenna and the other for receiver. The balanced transmission line connecting balanced transformers eliminates shielded lead-in and high capacity by-pass of signal to ground. The same equipment operates without change on both broadcast and short waves. The system consists of one antenna transformer, a receiver transformer, 75 ft. of two wire transmission lines. The list price is \$9.75. The Staticclear was developed by Kendall Clough, formerly chief engineer of Silver-Marshall.

A type FTR-1 line filter with 70 db. attenuation, is recommended for use with receivers with incomplete shielding of power transformer and chassis, to complete interference elimination. List price \$5.50.—*Radio Retailing*, February, 1933.



Aerovox Adjustable "Pyrohm" Resistors

A new line of adjustable Pyrohm (vitreous enamel) resistors designed to meet all voltage divider requirements and other uses where adjustable heavy-duty resistors are required, are announced by the Aerovox Corp., 70 Washington St., Brooklyn, N. Y. They are similar to the standard Pyrohm resistors, except that each unit is provided with an adjustable slider contact lug so arranged that any desired value from zero to the maximum value of the resistor can be obtained by a quick and easy operation.—*Radio Retailing*, February, 1933.

Standard Screw-Base Amperite

Due to the demand for a voltage regulator with a standard screw type base the Amperite Corp., 561 Broadway, New York City, has developed a new series. It has been determined that the average radio draws approximately 0.1 amps. per tube. Thus a 7 tube set would use Amperite model 7-A-5, a 9 tube set model 9-A-5, etc.—*Radio Retailing*, February, 1933.



How We Handle P. A. Rentals

(Continued from page 21)

panel for the speakers, power amplifier, pre-amplifiers and volume indicating and mixing controls. Also, a radio receiver was used to pick up a special broadcast. This was, of course, much more expensive than small jobs covered by one man and a small portable amplifier. Four engineers were on duty constantly.

By R. C. Mulnix

Denver, Colo.

RADIO and public address sales and rentals is my business. I have a truck equipped with a Western Electric standard No. 1 system, 110-volt a.c. 1½-kva. electric light plant and a knockdown steel tower for speakers made of airplane tubing. The truck, fully equipped, weighs 8,700 lb. and is valued at \$18,000.

PROSPECTS Business for the truck is obtained from many different sources, mostly as a result of its reputation. In connection with street advertising contracts it has been my policy to work only for high-class business houses. For example: department stores, automobile distributors, automotive supply distributors, territorial advertising for Standard Oil of Indiana, Paramount-Publix Theatre Corporation to advertise opening of new Orpheum Theatre, collegiate football games, campaign speeches, real estate auctions, ski tournaments, rodeos and fairs. I have declined service to a "jitney" dancehall and several sub-standard used car dealers.

SELLING Most of my rental service selling I do myself. Street advertising contracts are, however, not solicited. One or two initial jobs have created a demand for the service. Some time ago the truck was employed to advertise a Nash car sale. It progressed for seven nights and each visitor was asked to sign a card stating what method of advertising brought him out. Five thousand people attended and check-up showed that radio broadcast advertising attracted 50 per cent more than newspaper and the p.a. truck 50 per cent more than radio and newspaper combined! Cadillac and Packard came into the fold as a result.

CHARGES My rates are from three to five times higher than competitors but the high-quality of reproduction gets results. Low prices and poor service soon put competition out of business. Street advertising contracts are of secondary importance to me; are used only to aid in meeting overhead expenses. No operating costs have been figured but the policy for Denver is to operate the truck in the streets only two hours per day, from 12 noon to 1 p.m. and from 5 p.m. to 6. A charge of \$30 is made for this service, exclusive of the cost of signs, and we point out that the largest crowds hear announcements in the periods noted, while they are at lunch or on their way home, and when while they are at lunch or on their way home.

BALLYHOO Advertising rentals bring in about 10 per cent of my gross income. My business is mostly selling and renting public address equipment in the Rocky Mountain states to schools, hospitals, parks,

apartment houses, etc. I also distribute scientific instruments such as photomatic equipment, amplifiers for the hard of hearing, broadcast station supplies.

By R. D. Morrill

Suffolk Electric Company
Belmont, Mass.

WE SPECIALIZE in the rental and sale of public address equipment and also install manual and automatic telephones, 50 per cent of our revenue coming from amplifier rentals. Until 1930 this branch of the business was distinctly profitable but since that time cut-price operators with inferior equipment have hurt it. Irresponsibles are rapidly being squeezed out, however, by their own inefficiency and we anticipate an improvement. Competitors with high-grade systems will be positively welcomed and will do our business more good than harm.

SELLING We do very little advertising of our service as our past jobs and wide acquaintance seems to bring in about all the business there is available.

CHARGES Our prices are based largely on our experience during the previous year; the cost of maintenance and depreciation plus the volume of business. Our minimum charge is \$50 per day ranging up to \$200 per day for our largest equipment. Individual job charges are governed by the number of days equipment is required and general expense associated with it. For example: A convention starts at 9 a.m. and finishes at 10 p.m. It is necessary for the equipment to be set up and tested out the night before and it is also necessary for the men operating it to stay over the following day to remove the equipment. This naturally adds to the expense. On the other hand, some jobs start as late as 3 p.m. and close at 9, and can be handled at a lower rate.

Auto Show Survey

(Continued from page 17)

radio dealer who will go after the present owner of an automobile. The more auto sets in use, the greater the interest and demand.

SUMMARY . . . Twenty-nine motor car manufacturers exhibited their wares in New York last month. Twenty-five will provide built-in roof antennas as standard equipment on their 1933 models.

Eighteen automobile makers—62 per cent—have contracts with radio concerns whereby they are purchasing auto-radio chassis, converters, wiring harness and suppressors, so that their cars may be equipped with radio before they leave the factory or this same apparatus may be shipped to their territorial branches and dealers for installation at a later date. The average price to the consumer, installed, was \$69.

In no case did we find that auto-radio has been included as standard equipment. The buyer must specify this convenience as an "added accessory." When the work is done by the dealer a slight extra charge (\$5 to \$10) is made.

SERVICE AND INSTALLATION SECTION



CIRCUITS of the MONTH

The New "Universal" A.C.-D.C. Sets

THE new "universal" a.c.-d.c. receivers are achieving such widespread distribution that they are certain to be encountered by practically all servicemen. And yet, to our knowledge, no servicing data has been published up to the present time. *Radio Retailing*, therefore, has made a special effort to obtain such data and offers on these pages schematic diagrams of six such models, complete with all important constants.

Series Heaters

The design of sets universally adapted to either a.c. or d.c. 110 volt lines has been made possible largely by the perfection of indirectly heated cathode tubes, particularly power output types, permitting series operation of heaters without the introduction of objectionable hum. Efficient pentodes, capable of driving a speaker at a satisfactory volume level on low plate potentials were also essential.

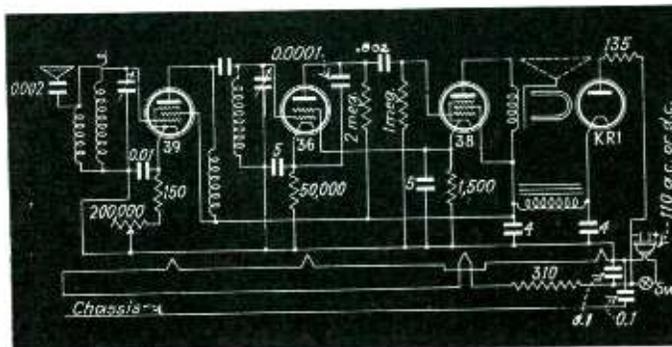
Automotive 6.3 volt, 0.3 ampere heater type tubes are used exclusively by the makers of universal models, all heaters, including that of the plate current rectifier, being wired in series. Sufficient external resistance is included in the heater circuit to cut down the applied voltage to a safe value. Thus, in four tube models, it may be calculated that the heaters require 4x6.3 volts, or 25.2, and that if the "string" is to be energized from 115 volt supply it is necessary to "lose" 115 minus 25.2, or 89.8 volts somewhere. Applying Ohm's Law

$$\left(R = \frac{E}{I}\right) \text{ where } E = 89.8 \text{ and } I = 0.3, \text{ it}$$

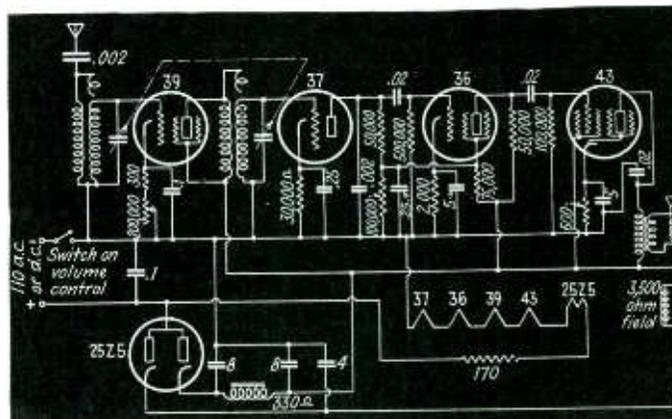
is found that approximately 300 ohms is required and this value will generally be discovered in such circuits. The resistor must have a power rating of at least 27

Do you want to know what happened at the IRSM Convention in Chicago? Read all about it in the news story on page 28

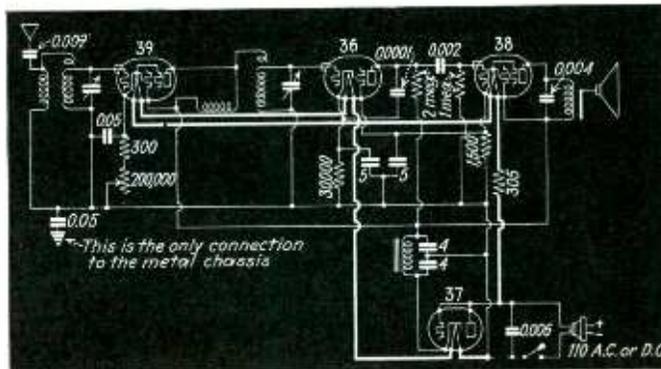
International "Kadette" P



ICA "Universal Mascot"



Emerson "Universal Compact" G4



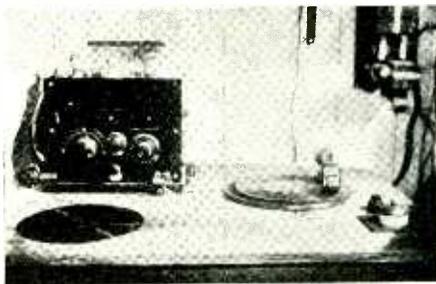
SHOP SHORTCUTS

A Transmitter for Store Demonstrations

By V. W. Hodge

My shop is located in the noisy business section of a small town remote from broadcast stations. Despite the use of special antennas and filters it is usually impossible to demonstrate sets in the daytime. So I have constructed a low-powered transmitter capable of feeding a good signal to receivers operating throughout the building but not powerful enough to radiate to adjoining structures.

The device is a three-tube affair which can be modulated from a two-speed turntable, microphone or from the output of a shortwave receiver. I usually put a 15-minute record on the turntable and broadcast music to a set placed near the entrance to the shop and the almost total absence of noise and quality of reproduction in an area bothered with electrical interference attracts many passersby. The microphone is used for occasional announcements. Programs transmitted on the comparatively clear shortwave bands are frequently re-broadcast with marked improvement over the programs simultaneously transmitted via the regular longwave channels. Due to the step-up ratio of the oscillator such programs may be received with the set's volume turned down low,

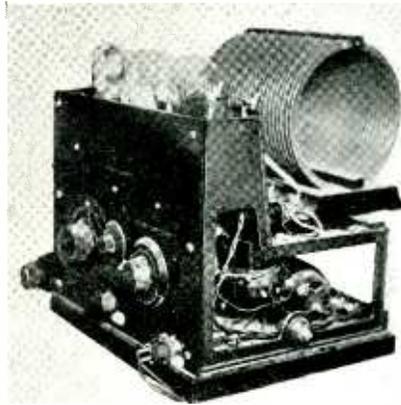


where it does not pick up noise.

The material for the transmitter was resurrected from the shop's junk-box. Transformers and pickup, however, were selected for their "quality." D.C., from a 6-volt storage battery is used to light the filaments, to eliminate a.c. hum,

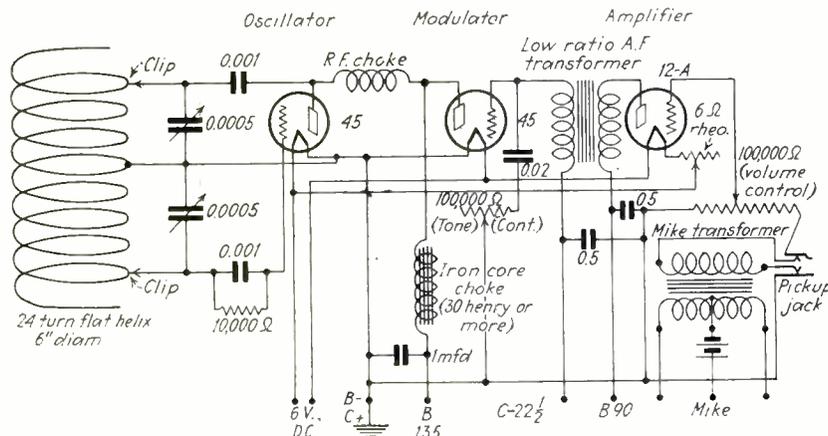
and dry-cell "C" batteries are used but plate potential is obtained from a good B-Eliminator. A 100,000-ohm resistor is used in conjunction with a .02 mfd. fixed condenser as a tone control and effectively eliminates needle-scratch when playing records. Another 100,000-ohm potentiometer makes an excellent volume control. A double-button microphone is connected to the input terminals of the mike transformer when in use. A suitable coupling transformer (not shown in the drawing) is used to couple the output of the shortwave receiver to the input of the transmitter.

The device is not difficult to tune.



Servicemen lacking "amateur" experience will be able to manage simply by "juggling" the clips and tuning the condensers while listening to a nearby receiver. When the outfit is operating properly it should be possible to draw a slight radio-frequency spark when touching the plate end of the coil lightly with the point of a lead-pencil. Care should be taken, however, that it is tuned to either 550 or 1,500 kc., where there is least likelihood of interfering with broadcast stations and the volume should be held down so that locally transmitted signals do not radiate beyond the confines of the store.

A "Limerick" contest, described on page 21, stirred up more service work than Paul Freed could handle



MOUSE TAKES RAP

Radio Rodent Electrocuted to Music

CLAY CENTER, NEB., Jan. 30.—Joe Q. Mouse passed from this world promptly at 7 p.m. tonight, following a hearty meal of insulation. "Doc" Roger H. Hertel pronounced Joe (and the power-pack of the radio set in which he had made his home) dead at 7:09.

"My third execution," stated Hertel. "Mice frequently nest in receivers out here in the sticks, with disastrous results."

Tuning Meter Installations

By J. P. Kennedy

Receivers not equipped with tuning meters can easily be modernized by the addition of this feature.

The best size meter to stock for such work is one having a 5 or 10 milliamper scale, shunts being used wherever greater current flow is anticipated. The Weston type 506 pin-jack meter once furnished with battery receivers makes an excellent indicator if the external resistance coil is removed. A number of other good instruments are listed in leading supply catalogs from 88c. to \$1.50, with escutcheons averaging 18c. extra. A 0.1 mfd., 400 volt condenser is the only additional part necessary, so that cost for material should not exceed \$2.

The meter is usually best installed in the plate lead of one or two sharply tuned r.f. or i.f. tubes, or, if both r.f. and i.f. are fed from the same point in the voltage distribution system, in the common plate lead. The only r.f. circuits in which a tuning meter should not be used are those with un-tuned, non-resonant circuits. Power detectors, also, do not ordinarily have enough plate current to actuate low-priced meters.

A by-pass condenser should be connected from the negative side of the meter (connected to the tube plates) to ground. The positive terminal of the meter should always be connected to the source of positive plate voltage.

The five-mil. meter is suitable for use in the plate circuit of a single tube. It should be shunted, or a ten-mil. instrument employed where two or more tubes are used to actuate the movement. If the meter kicks off scale before the receiver is tuned to resonance with a broadcast station shunt it until the needle appears well on scale.

The meter reading will increase when the set is tuned to resonance with a signal in ordinary t.r.f. sets and supers. It will decrease where the circuit includes automatic volume control.

Filter-Condenser Repair "Oven"

By Joseph E. Soos

I have watched many servicemen remove filter-condensers from their cans by hammering to loosen the pitch, even



Oscillator, Tubechecker, Analyzer. For Analyzer method.



Oscillator, Volt - Ohmmeter, Capacity Meter. For Point-to-Point method.

2

Profit Producing Service Kits

See Them at Your Jobbers

CONVENIENCE and accuracy have been combined in these two modern combinations of Weston Standardized Service Units. They are business builders. Either combination quickly and surely gets at the root of the trouble.

For the ANALYZER-TUBECHECKER method Weston offers the combination of Model 660 Analyzer, Model 661 Tubechecker and Model 662 Oscillator. For those preferring the POINT-

TO-POINT method, Model 663 Volt-Ohmmeter, Model 664 Capacity Meter and Model 662 Oscillator provide the ideal combination.

Every service man should get all the facts about these two combinations of Standardized Service Units. Mail the coupon for complete information.

Weston Electrical Instrument Corporation, 581 Frelinghuysen Avenue, Newark, New Jersey.

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Radio Instruments



Model 677 Weston Tube Tester.

Pattern 444 Set Analyzer.

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Please send me further information
on Weston-Jewell Service Equipment.

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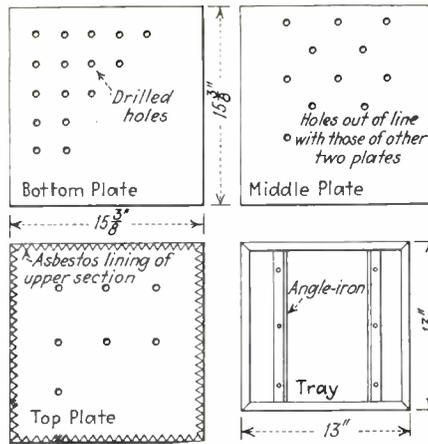
Address.....

by cutting out the bottom with a chisel. This has always seemed to me to be a difficult and destructive method. For the past 5 years we have done the work with a simply constructed "oven."

The oven is 15½ in. square, 18 in. high, is made of galvanized iron plates held together with angle-irons and is heated by means of a single gas burner located in the bottom. The heat is prevented from coming into too direct contact with the condenser block to be repaired by three spaced plates. The whole assembly is lined with sheet asbestos.

The "radiator" plates are spaced 1 inch apart. Each one has several holes drilled in it to allow heat to rise quickly to the oven but these are "staggered" so that direct flame cannot pass through. A metal tray equipped with eyelets which can be gripped with wires to pull it up out of the oven is part of the assembly.

The sides and removable top of the oven are made of light galvanized iron, while the plates, or radiators, are of ⅜ in. stock. The plates are 15½ in. square and the tray 13 in. square and about 2½ in. high including attached strips of



clean we put the block into the tray and then lower the tray into the center of the oven with the wires. Then the top is placed on the oven. The gas is ignited and permitted to burn until the pitch is thoroughly liquefied. The liquid is poured off and condensers and chokes within the can permitted to cool.

Next, the defective condenser section is removed from the assembly and a new one wired in place. Pitch is poured into

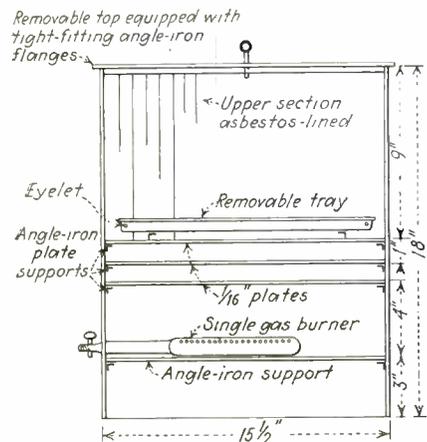
Radio Retailing is now in the midst of its second, national hook-up, broadcast campaign—to help servicemen sell. See page 27

the can again and while the unit is still warm gasoline is wiped over the case to clean it up.

In about 5 hours a set such as an AK can have a filter condenser section replaced by this method and not show any "battlescars."

Resistor Computations

ELECTRAD (173 Varick St., New York) has a new resistor catalog. In it is a page of resistor computations and data of practical value to servicemen. Write for one, mentioning "Radio Retailing." It's free.



angle-iron which elevate it above the top radiator plate.

After removing the filter block to be repaired from the chassis and carefully taping all colored leads to keep them

"TRICKS OF THE TRADE"

MAJESTIC 90, 91, 92. If analysis shows no detector plate voltage clip the wire between the second and third lugs from the top of the condenser block for a temporary repair with slightly reduced volume.

SPARTON 931, 301. Hum is generally caused by nothing more serious than poorly matched push-pull 182's.

LYRIC 90, 96. Excessive plate current in the push-pull stage is often caused by the socket prongs shorting to chassis. Analysis generally fails to show up this trouble as the tester plug pushes the lug away from the metal. The 0.5 mfd. section in the bypass can beneath the chassis usually fails before others. Intermittent or noisy reception is generally due to an unsoldered lead from r.f. choke to plate prong on socket, or to unsoldered grid lead to detector grid prong.

AK 30, 40. A common headache is shorting of the wire-wound resistor beneath the chassis to ground. The fibre base warps, causing the trouble, which can be corrected by sliding a piece of fiber under the unit. No reception: Check the speaker filter condenser.

SM 30. When there is no reception look first for a punctured filter condenser, usually the green lead coming out of the can.

FADA. Slipping dials are the pet weakness of some of the older models. Remove the drum from the condenser shaft and lay it flat on its wide side. File about ⅛ of an inch of metal off the flat side of the dial "neck" which normally rests against the spacing collar. When replacing it push it hard against the spacing collar before tightening the set-screws. This causes the edge of the drum to be firmly wedged in between the plates of the drive assembly.

PHILCO. When "Shadowgraph" tuning indicators fail to indicate check up on the antenna. If it is too short, or so inefficient that it does not pick up strong signals this will happen.

BOSCH 60. Loss of volume and distortion may often be traced to poor contact at the phono switch which is supposed to cut out the r.f. when the tuning condenser plates are disengaged.

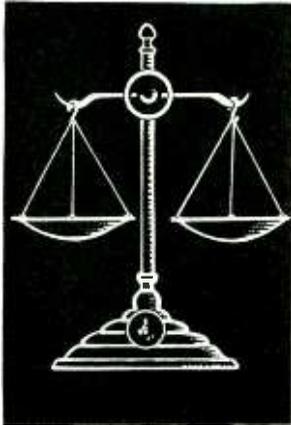
KOLSTER K45. Distortion at high volume level is sometimes due to loosened voice-coil windings, these rubbing against the field coil core.

PHILCO. High and low frequency trimmers can be adjusted without an output meter on sets equipped with Shadowgraph tuning indicators by first tuning a

Going After Auto-Radio Work



Walter W. Mudge and partner Glen Rothfuss of Flint, Michigan, are swinging their effort to car-set installations and service. Prospects look good to them for 1933.



A Square Deal

for Everyone

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CLEANAIRE Refrigerator DEODORIZER



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- because*
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A helpful VOLUME CONTROL and RESISTOR GUIDE is available upon request.

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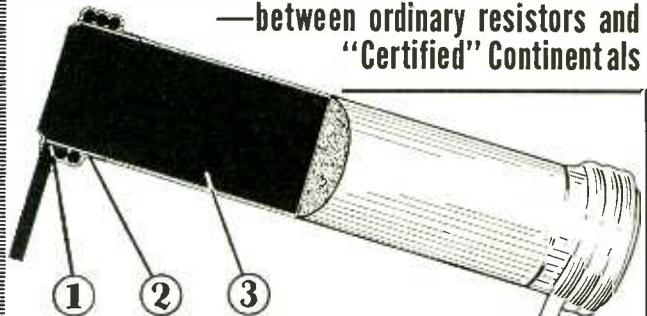
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2. Molten copper is blown at terrific velocity into the very pores of the resistor-bar ends. A perfect metal bond is formed integral with the resistor-bar. This feature makes Continentals the choice of leading power amplifier builders, who must have quiet resistors.
3. The resistor-bar is molded under high pressure and fired in automatically controlled furnaces. The resistance material is permanent—unaffected by humidity and not injured by operation at twice normal power rating.

Ignition noise Suppressors

Approved and used as standard equipment by leading auto-radio and motor car manufacturers. Three types — Spark Plug, Distributor and Screw-In - Cable. For the Ford V-8 a special unit, type PV8, resistance 50,000 ohms, is available.

A better, more comprehensive resistor replacement guide At your jobber's or 50-cents post-paid.



New!

CONTINENTAL CARBON Inc.

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Canadian Factory, Toronto, Ont.

station operating on 1400 kc. and adjusting for narrow shadow and then repeating the process on a low-frequency signal.

PHILCO 90. Intermittent noise and crackling when the set is jarred may sometimes be traced to poor electrical contact between r.f. tube shields and chassis. Bonding these with short lengths of wire remedies the trouble.

SERVICEMEN: We pay for all "TRICKS of the TRADE" printed, of course. But don't send in dope on "unusual" troubles. We want to know only about weaknesses that develop again and again in certain makes and models.

CLARION 320. If "motor-boating" develops connect the suppressor grid of the 58 i.f. tube to the cathode instead of (early models) to ground.

COLONIAL 35 AC. Failure of this model to tune between 550 and 500 kc. is due to shorting out of the phono switch by the dial itself. Loosen the nuts holding the switch and push it farther back.

AK 37-60. New, double-spring contact arms are available at the factory and make it unnecessary to change entire volume controls unless the wire is shot. Clean the winding with alcohol.

AK 80. When volume controls become noisy raise the end of the contact with long-nosed pliers and bend in toward the winding slightly, then clean the strip with alcohol.

Philco 70, 71, 90, 91. Fading of locals is usually due to failure of a 1 mfd. condenser. Use sharply pointed test probes to locate the defective unit, gently lifting up the wires that come out of the hard-rubber case which houses the condensers.

Edison. Where 24's and 27's have sub-normal plate voltages check back from them to resistor terminals and remove the r.f. amplifier can with its associated resistors. Open can and isolate shorted bypass condenser. Reassemble unit and rewire. Connect a tubular .1 or .5 mfd. condenser from the high side of the resistor to ground.

Sparton 930, 931, 589. When plates of the 485's show low or no potential remove screw at side tab of cylindrical condenser at rear left of amplifier can. Remove responsible condenser by unscrewing with upward twist. Replace. Job can be done in 10 minutes without removing chassis from cabinet.

"The Business Building Side of Servicing," is the title of a talk delivered by our corresponding editor at the IRSM convention last month. It is reprinted on page 29.

GM. Where tone quality of models using horizontal tuning dials is bad although plate potentials on final 45's checks O.K. do not condemn the push-pull transformer. Look for a defective tone control variable resistor. Replace it with a 500,000 ohm unit.

AK 55, 60. Fading can often be traced to loose rivets on wire-wound resistors. In most cases re-clamping them with pliers effects a repair. Check particularly bleeder No. 1, r.f. bias and 1st a.f. bias units, as these work loose more often than other units at the rivets.

NEW TUBE DATA

(SOCKET DIAGRAMS APPEAR ON PAGE 43)

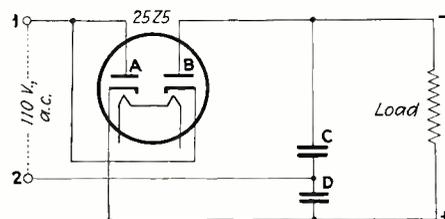
ON THE "black and white" page following appear base connections of receiving tubes introduced since September of last year. Their purpose should be evident upon examination of the diagrams and heater, or filament, characteristics shown.

There are, however, several of these new tubes which merit, and here receive, special mention.

25Z5

Called by tube makers a "Rectifier-Doubler," the 25Z5 is one of the first types to use the new designating characters predicted by *Radio Retailing* in November. (Tube Numbering That Means Something, page 26.) It can be used as an ordinary half-wave rectifier, with both plates and both cathodes tied together, and will probably first be encountered by servicemen hooked up in this manner in "universal" a.c.-d.c. receivers. (See ICA circuit on page 35.) A second suggested use is of greater interest.

When connected as shown in the accompanying diagram the tube, which is essentially two diodes in the one envelope, is capable of changing 110 volts a.c. into approximately 220 volts d.c. (100 mils.) and this may permit designers to offer "transformer-less" a.c. sets if the necessary capacitors prove cheaper than iron and wire. The first sets to be so powered



would probably be pentode equipped mid-gets as the subtraction of C-bias voltages leaves less plate potential than is desirable for the operation of large output triodes.

Full wave rectification is accomplished and the path taken by the current on each half-cycle may be traced as follows: When input leg 1 is positive, current flows through diode A and through the load, returning through condenser C to the line. Condenser D is simultaneously charged. Then input leg 2 becomes positive. Current flows through condenser D, through the load and returns via diode B to the line. Condenser C is simultaneously charged.

Rectified line voltage is always applied to the load in series with a charged condenser. Thus it will be seen that the output voltage is the sum of the line voltage (less the drop through the rectifying diode) plus the charge stored up in a condenser

during the previous half-cycle, effectively doubling the voltage.

Large capacitors are necessary at C and D but need only be rated to stand the input voltage.

5Z3, 2A3

The 5Z3 and 2A3 are respectively heavy-duty, high-vacuum type, full-wave rectifier and heavy-duty power output triode and will quite probably be found working together in quality receivers at an early date.

The 5Z3 will handle up to 500 volts (RMS) a.c. per plate at 250 mils. as compared with the 135 mil. limit of the 80, the 125 mils. of the 82 and the 250 mils. of the 83. It has all the proven advantages of high-vacuum type rectifiers.

The 2A3 power output triode, designed for use in Class A systems, has a particularly high mutual conductance rating (5,500 micromhos as compared with the 2,050 of the type 45). With 250 volts on the plate, minus 42 grid bias and 60 mils. drain it is capable of delivering 3.5 watts to the speaker, as compared with the 2 watts of the 45 and the 2.5 of the type 47 pentode. Two 2A3's working in push-pull with 300 watts plate can supply 15 watts of usable power.

The tube is designed to work into a 2,500 ohm load (5,000 when in push-pull). Its high-efficiency is due primarily to a "multi-filamentary" cathode structure, a series-parallel combination of a large number of coated filaments which provides a large, effective emission area.

79, 19

Types 79 and 19 are both Class-B "twin" amplifier tubes, meaning that just one of them constitutes the final push-pull stage. The 79, with 180 volts on the plate, working into a 7,000 ohm load, will deliver 5.5 watts with an input of 250 milliwatts applied between its two grids.

Type 19, designed for battery operation, will furnish 2.1 watts of output power with 135 volts on the plate, 50 volts RMS applied to the two grids.

4

This new tube, a full-wave, high-vacuum rectifier, is unique in that the voltage drop through it when 225 volts RMS is applied to each plate and 50 mils. drained from the output is only 20 volts. The drop, of course, is even less with smaller loads. Comparatively low resistance is obtained by closer spacing of the elements and is particularly useful in connection with the design of auto-radio B-eliminators. Here there is little enough voltage available even before rectification and it must be conserved.



Servicemen and dealers are finding it mighty profitable . . . this new CENTRALAB VOLUME CONTROL GUIDE.

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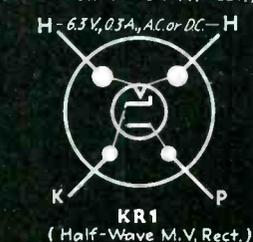
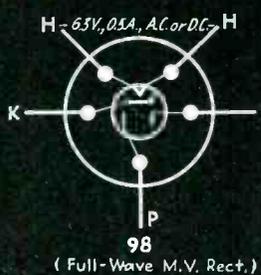
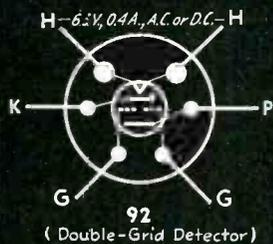
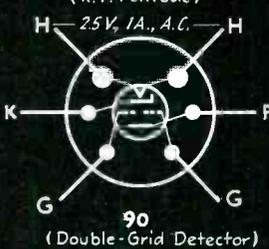
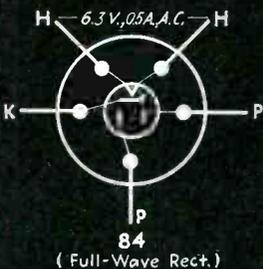
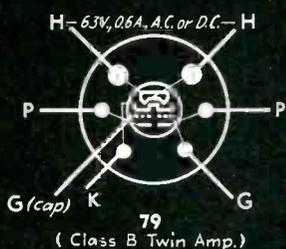
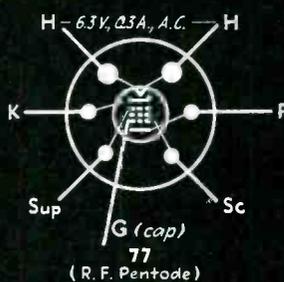
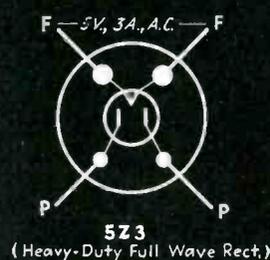
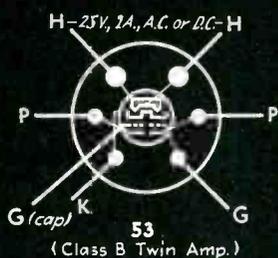
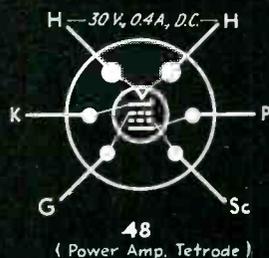
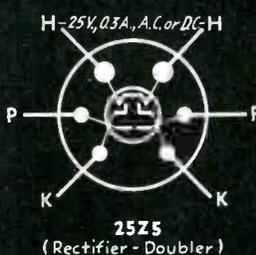
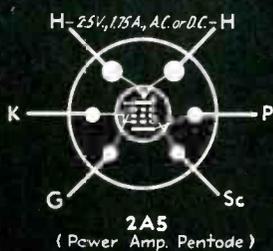
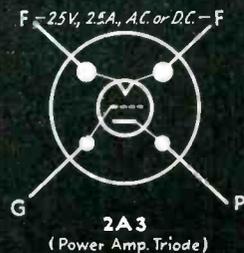
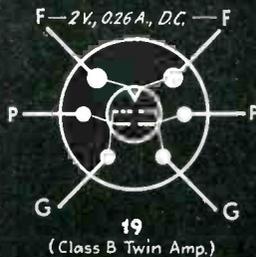
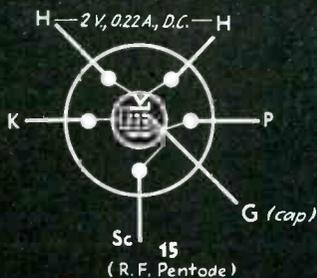
TODAY a radio dealer might well soliloquize in this fashion: "Do I believe that radio sets will once again be sold in volume to American homes? If not, I ought to get out of the radio business and into some other business. But if I do believe that radio sets will again be sold in substantial number to the homes in my community, then what am I doing to keep contact with those homes? Does not radio service work, using quality repair parts, give me the most friendly relationship that is possible with my old radio set customers and my prospects? If I do a good job, repairing radio sets in my community, utilizing parts that give satisfaction, won't I be able to sense the exact time when each family can be persuaded to make an investment in a new, modern radio set?"

AND the radio parts manufacturer might also ask if now isn't the chance of a lifetime to get national distribution for his products, among dealers and service organizations who this year will service sixteen and three quarter millions of homes with radio sets. It's more than coincidence that these dealers and service organizations, as well as the distributors who serve them, are regular readers of

Radio Retailing
—A McGraw-Hill Publication

More New Tube Connections

(Seen from below)



This RADIO RETAILING chart supplements those published in February and September, 1932. They cover all radio receiving types manufactured to date.

Announcing G-E COLOR-RADIO

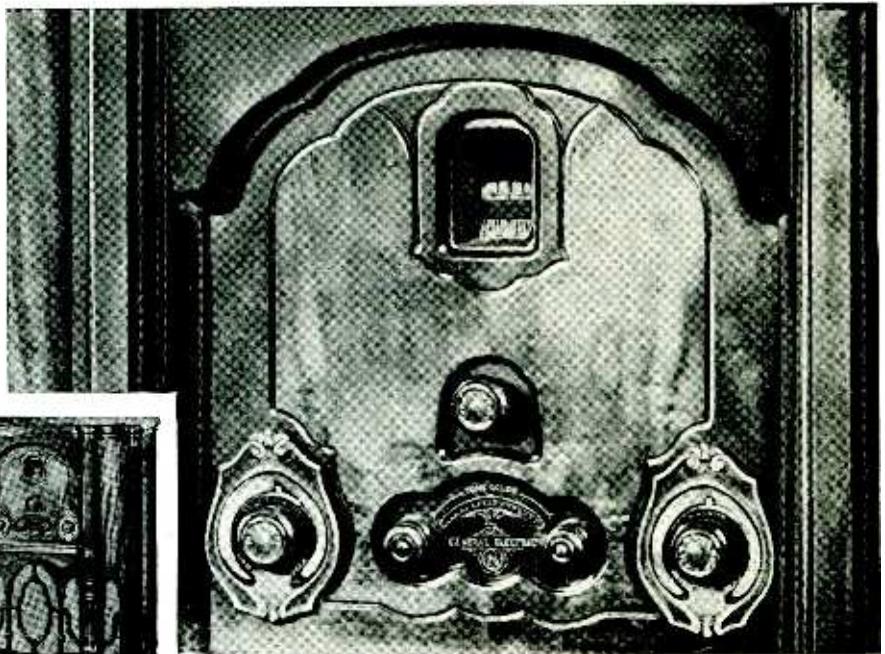
*A sensational New Model of
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HERE'S a grand, new G-E Radio value—a stunning full-size cabinet model, delivering that superb G-E performance which keeps on winning the tone-tests. And it's tagged with an amazingly low retail price.

But that's not all! This newest G-E Radio triumph has been given a novel, fascinating added attraction which is bound to make prospects stop, look—and buy.

G-E Color-Radio! A new tuning system, developed to permit tuning by rays of colored light, as well as by dial. These rays enable you to eye-check all tuning for finest performance. G-E Color-Radio is visible on three different adjustments on the panel—on the Noise Silencer (eliminator of man-made static), the Volume Control, and on the Tone Color Control—which *for the first time in radio*, permits tone adjustment at *both* ends of the musical scale—*Treble and Bass!* You can choose adjustments exactly suited to your individual taste—as you never could before!

Ring up another sales-making advance for G-E Radio—and another reason for getting and holding the G-E Dealer Franchise. If you aren't



THE NEW G-E COLOR-RADIO MODEL K106
—Visual tuning and color control, 10-tube Superheterodyne.....Price with tubes

\$110

a G-E Dealer now, write for full information on the Franchise right now. And be sure to ask for full details about G-E Color-Radio and what it means to you as a profit-maker. Address Section R-442, General Electric Co., Merchandise Dept., Bridgeport, Conn.



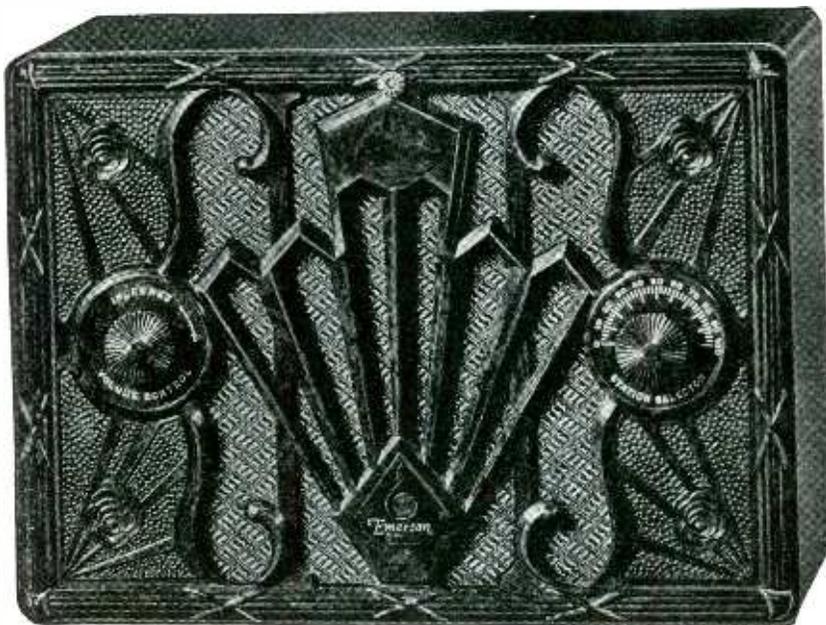
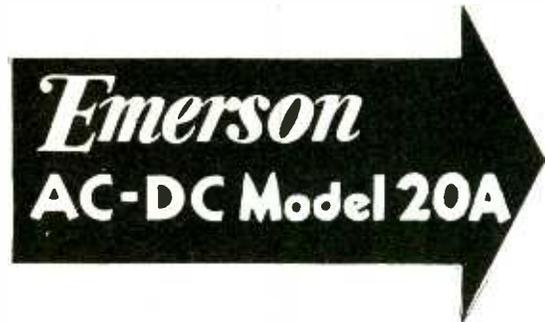
NEW! The Little G-E, 4-tube A.C.-D.C. receiver. Easily portable, good performer. Price with tubes.....

\$19⁹⁵

GENERAL  ELECTRIC RADIO

AND NOW.. *Emerson* PRESENTS A COMPANION TO THE FASTEST-SELLING RADIO SET IN THE WORLD*

Here's a great team of AC-DC radios — both incorporating the famous Emerson features — both operating ANYWHERE. Both winners!



FACTS:

9 1/4" wide, 6 1/2" high, 4 1/4" deep.
Weighs only 6 pounds.
Deluxe Bakelite case in rich walnut finish.
Uses newest 6-volt tubes: 1—336, 1—337, 1—338, 1—339.
Licensed by RCA, Hazeltine and Latour Corporations.

\$ 17⁹⁵
RETAIL PRICE
COMPLETE

with Cunningham Tubes and Built-in Aerial
(Zipper carrying case lists for \$1.50)



* THE EMERSON AC-DC UNIVERSAL COMPACT— MODEL 25A

—sales leader everywhere—
is now even more attractive
to the dealer because of lower
net price and opportunity for
greater profit margin. Retail
Price, complete with Cunning-
ham tubes, \$25.

Operates on ANY CURRENT . . . Anywhere!
— 6 and 32 volt as well as 110 or 220 volt — A.C. or
D.C. — Any Cycle.

Sell it for every room in the HOME, for the OFFICE,
AUTOMOBILES, MOTORBOATS, FARMS, STEAM-
SHIPS, and for use in Foreign Countries.

Dealers, Jobbers: Write or wire at once for particulars.

EMERSON RADIO & PHONOGRAPH CORPORATION
641 Sixth Avenue (Watkins 9-2264), New York, N. Y.

Majestic Steps Into with 7 Great

Designed
and priced to
meet the **BUYING**
requirements
of a new
price-era

Not since the spectacular ovation accorded the Majestic line in 1928 has a series of models met with such spontaneous enthusiasm as these new Majestic offerings . . .

Because they represent exactly what the public is prepared to BUY.

(1) In eye-appeal: cabinets made irresistible by the use of new and expensive imported woods and surpassing anything ever before presented to the public — even by Majestic.

(2) In performance: radio circuits embodying for the first time Class "B" amplification with the new G-59 power output tube, the latest development in 7-prong tubes . . . improved synchrosilent tuning . . . and in the higher



MODEL 336

7-tube superheterodyne with 8-tube performance, incorporating the new Majestic G-59-B tube.
Price \$49.95



MODEL 363

Gothic Cathedral Console incorporating many of Majestic's most outstanding features. 11-tube superheterodyne. Price \$89.50



MODEL 344

Every worthwhile feature of radio is incorporated in this 11-tube receiver, including new Class "B" amplification. Price \$139.50

this Buyers' Market New Models

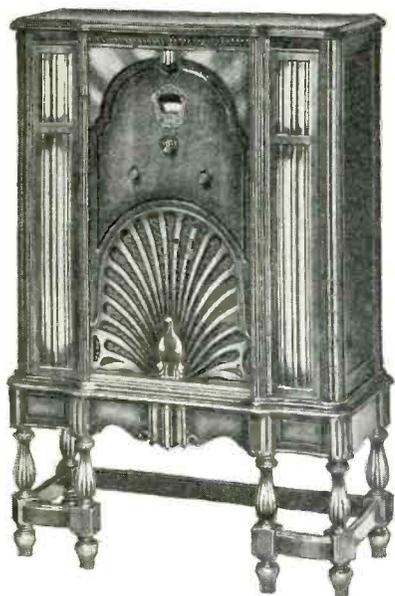
priced model, delayed automatic volume control and perfectly matched twin speakers.

(3) In price: a range exactly gauged to what the public is prepared to pay. A 5-tube table model as low as \$19.95 . . . an 11-tube console of exquisite design at a top price of only \$139.50. All sets include a full complement of Majestic matched tubes and are quoted, Federal Tax Paid.

Advanced as Majestic design has always been, the public will find a new thrill in the selectivity and tone of the 1933 models now being built. It will pay you to see your nearest Majestic distributor — at once — and get all the facts.

GRIGSBY-GRUNOW COMPANY, CHICAGO,
and affiliates, with factories at Chicago; Toronto; Bridgeport;
Oakland; London, England; and Sao Paulo, Brazil
Manufacturers also of MAJESTIC Refrigerators

Hailed
by Majestic
dealers as the most
attractive line
ever offered to
the public



MODEL 393

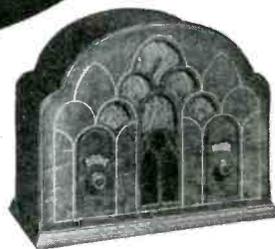
8-tube superheterodyne providing 9-tube performance, and incorporating the G-53 tube Class "B" amplification. Price . . . \$69.50



MODEL 371
A small Gothic table model incorporating a five tube superheterodyne receiver. Price . . . \$19.95



MODEL 331
Gothic table model with 7-tube superheterodyne receiver, incorporating the new G-59-B tube. Price . . . \$43.95



MODEL 373
Five tube superheterodyne, using the new Majestic G-59 power output tube. Price . . . \$27.50

Majestic SUPERHETERODYNE RADIO

Licensed under patents and applications of R.C.A., Hazeltine, La Tour, Lowell & Dunmore, and Boonton Research Corporation.

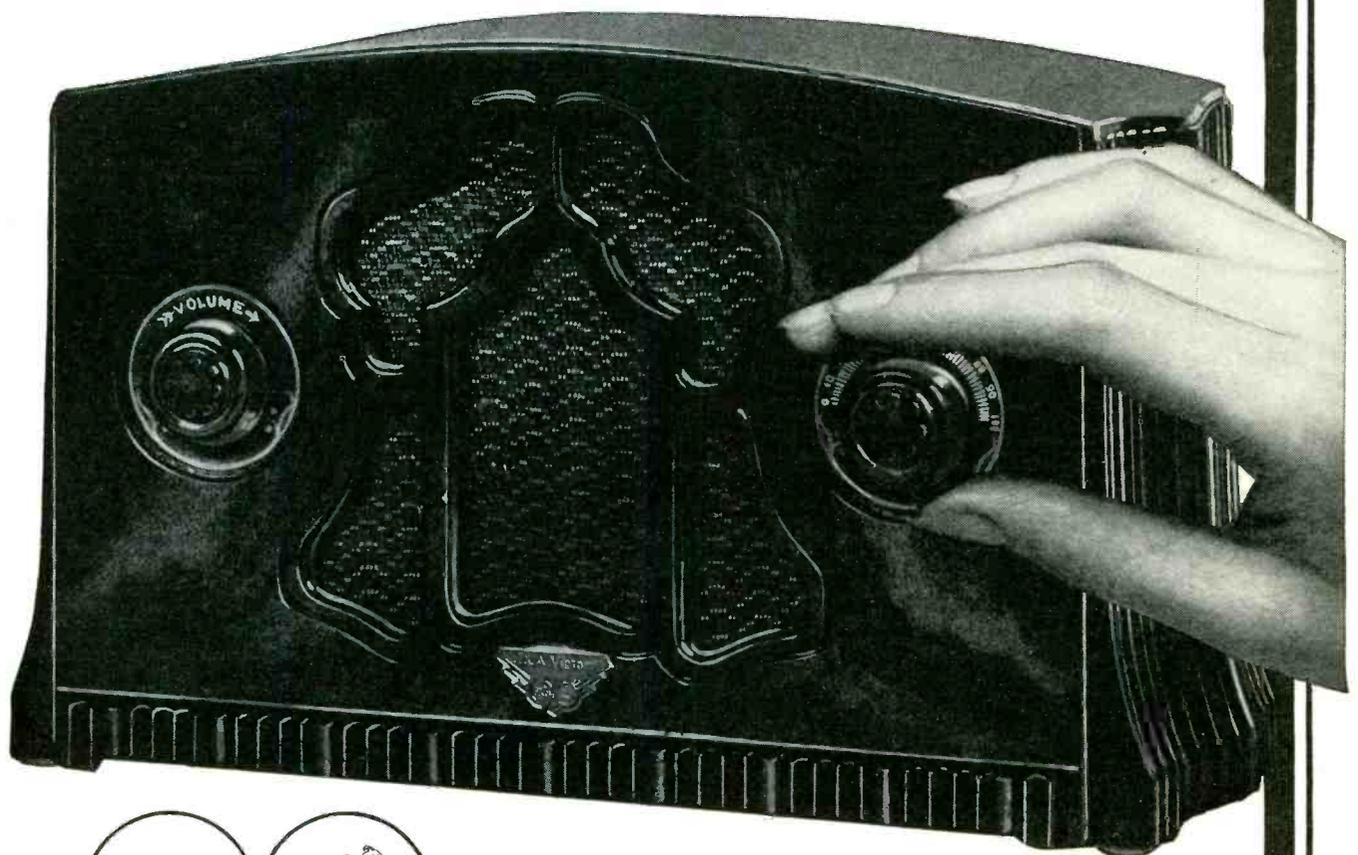
All prices quoted are for sets completely equipped with Majestic tubes, and with federal tax paid. Prices slightly higher on West Coast.

AMERICA'S

*RCA Victor presents R-27
...a new type personal radio...
at a price in tune with today*

JUST \$19.95 LIST

Slightly higher west of the Rockies



*R-27 . . . 6 $\frac{7}{8}$ " high, 11 $\frac{1}{4}$ " long, 4 $\frac{1}{2}$ " deep.
Finished in beautiful burl walnut. Weighs only 6 lbs.*

NEW HANDY RADIO!

Here's RCA Victor's superb new handy radio ... that operates on either AC or DC. It's just a handful ... small in everything but tone and performance. Here's what R-27 means to you:

QUICK PROFIT!

Because it is essentially a "cash and carry," over the counter proposition, and requires little demonstration and no financing.

QUICK PROFIT!

And because it means a rapid turnover ... no large investment tied up on the floor. It's in and out again with a minimum of space, time and effort.

QUICK PROFIT!

Because it's a style in the public fancy ... one of those things that take hold and sell like wildfire. It's priced that way and looks that way. Handy, intimate—as personal as a pocketbook.

QUICK PROFIT!

PRICE! Price in big letters. And it's a lot of radio for the price. \$19.95 tagged to a radio that will operate anywhere ... it looks like a give-away.

Merchandise the R-27 on the basis of convenience and low price. It's the best radio there is in this price class ... because it's RCA Victor. Sell a series of installations ... one for the bedroom, the dining room, the kitchen, the bathroom, the office. This set is at home anywhere, delivers real radio entertainment of splendid quality.

Write, call or wire your RCA Victor distributor right now!



"His Master's Voice of the air"

RCA Victor Co., Inc.

A Radio Corporation of America Subsidiary

CAMDEN, N. J.

"RADIO HEADQUARTERS"

THE NEWS IS OUT!

SERVEL'S "NEW DEAL" IS TALKED OF EVERYWHERE

Because Servel's new deal offers the best opportunity in years for refrigeration profits, retailers everywhere welcome it. Servel has built the new deal on the premise that greater profits belong to the man who makes the sale.

**NEW DISCOUNTS • NEW PRICES
NEW LINES • NEW ADVERTISING SET-UP
NEW MARKETS • NEW SALES PLANS
NEW FACTORY HELP'**

And—The Servel line is the most complete in electric refrigeration—it opens up opportunities in every field for every dealer. A wide range of prices—a wide range of sizes—with unmatched quality. Every requirement of home refrigeration can be filled from the Servel Domestic Lines.

Every refrigeration requirement for every kind of business can be filled from Servel's Standard Commercial Lines.

THE CAPPEL FURNITURE CO. FURNITURE, CARPETS, STOVES

215-221 SOUTH MAIN STREET
DAYTON, OHIO

January 13, 1933.

Servel Sales, Inc.,
Evansville, Indiana.

Gentlemen:

Servel is to be complimented on its new selling plan. This is the first opportunity furniture merchants have had to buy a high grade, standard, nationally advertised line of electrical refrigerators on a selling plan that gives him two things he must have:

1. Adequate margin which will permit him to do the necessary advertising and sales promotion work and still leave a profit.
2. Exclusive territory arrangements that prevents any one else capitalizing on the merchandising effort he puts forth.

Very truly yours,

Harry F. Cappel
Harry F. Cappel.

HFC:RB

READ THIS LETTER FROM MR. CAPPEL OF THE
CAPPEL FURNITURE COMPANY, DAYTON, OHIO

WHAT DEALERS SAY!

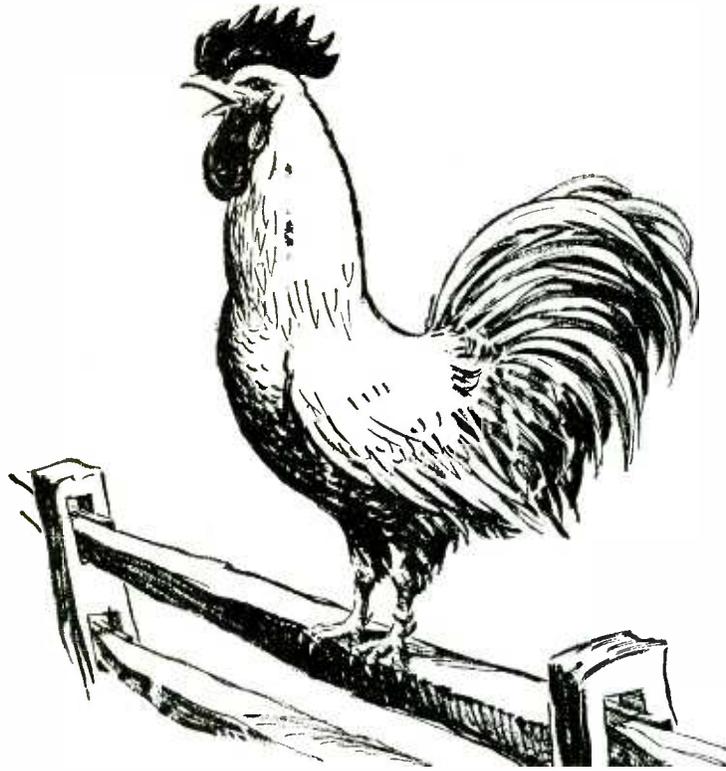
"revolutionary" . . . "simple but 100% sound" . . .
"the solution for dealers" . . . "this plan will surely
be followed by others" . . .

These are typical of the comments we hear on every hand. Not one dissenting voice—they all agree.

SERVEL

Evansville, Indiana

WRITE TODAY FOR DETAILS OF SERVEL'S "NEW DEAL"



SOMETHING TO CROW ABOUT

THE Hygrade Sylvania Corporation takes real pride in the independent pioneering work done by its engineers in developing the new six volt tubes.

These tubes were first designed to give new compactness, greater volume and increased current economy to automobile radio. A few months later they were adapted to all types of radio receiver service other than dry battery. They have fully proved their worth in both fields.

More Sylvania made tubes are sold for use as original equipment in automobile radios than any other make. And Sylvania also surpasses all other tube manufacturers in the number of tubes sold for original equipment in receivers of other types. Its three factories have a

capacity of over 100,000 tubes a day. Its engineering department stands ready at all times to help the set manufacturer in his circuit and design problems.

Technical leadership of this kind puts Sylvania in the forefront of the radio industry. Combined with Sylvania's consistent advertising and selling effort it explains why the financial and dealer strength of the company has steadily increased during the difficult years of 1930, 1931 and 1932.

The Hygrade Sylvania Corporation is management owned and controlled. The major portions of its stock is held by the same men who run the business. To Sylvania dealers, and to manufacturers who buy Sylvania-made tubes, this fact is a guarantee of whole-hearted cooperation in every phase of business endeavor.



Sylvania
(Reg. U. S. Pat. Off.)

THE SET-TESTED RADIO TUBE

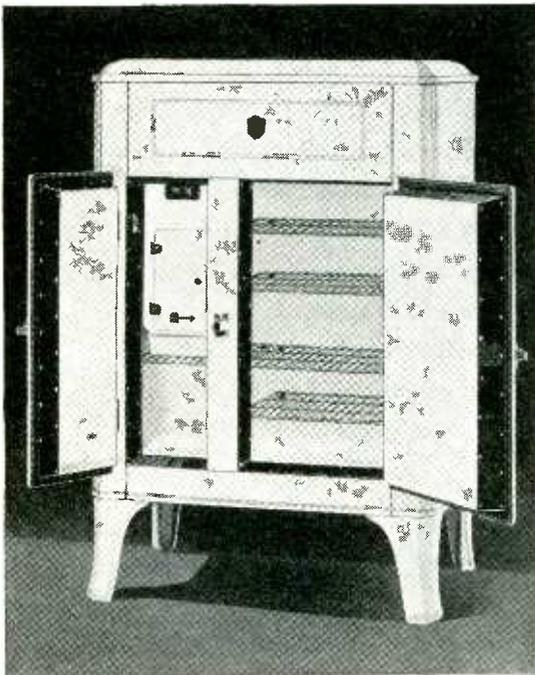
© 1933, T. H. S. C.

ELECTRO-SEALED REFRIGERATION is offered only by MAJESTIC



Secure as the nation

Hermetically sealed? Better than that! ELECTRO-SEALED—"Secure as the Nation" against injury from outside sources, against defect from inside causes. And guaranteed for 3 years!



Model 900. Food storage area, 16.4 sq. ft. Exterior dimensions: Height, 58 $\frac{3}{4}$ in., width, 33 $\frac{3}{4}$ in., depth, 23 $\frac{7}{16}$ in., depth overall, 27 $\frac{9}{16}$ in. Five ice trays—105 ice cubes—10 pounds of ice.

PROVED REFRIGERATION!

The public demands it. Majestic supplies it. A refrigerating unit so precise in manufacture, so dependable in performance, that it can safely be SEALED for life within a steel dome.

Again Majestic dealers are in an enviable position. They're selling a refrigerator that will *give* service and not *require* service.

PROVED REFRIGERATION!

Plus a score of noteworthy features any one of which might easily influence a sale.

"Isolater-Wall" Construction, assuring constantly maintained food compartment temperature, and lowest operating costs.

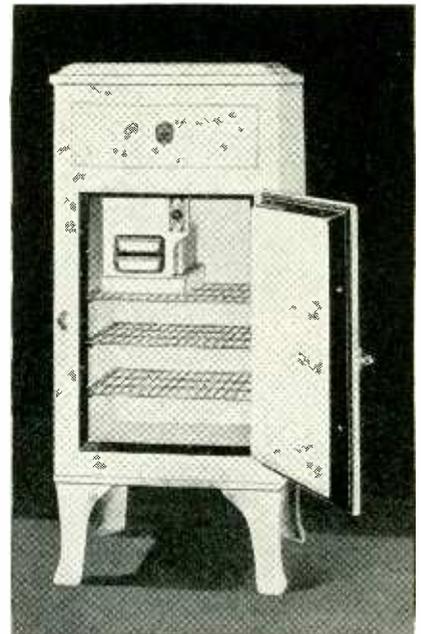
"Stay-Kold" Defroster, maintaining a cycle of refrigeration and keeping ice cubes intact even during defrosting period.

Auto-Reset Protector — "Stay-Brite" Shelves — "Freeze-out" Trays—beautifully-designed cabinets—and delivered prices that will put every Majestic dealer right out in front with incomparable values.

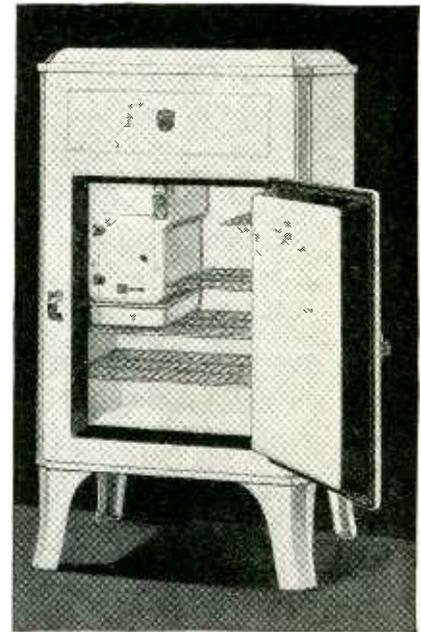
Many Majestic distributors are now holding their dealer meetings—or soon will be. *Every* refrigerator dealer, no matter what he is now selling, owes it to his future as a successful merchant to see these new Majestics. More than ever before "Majestic" means business!

GRIGSBY-GRUNOW CO., CHICAGO,
and affiliates, with factories at Chicago; Toronto;
Bridgeport; Oakland; London, England;
and Sao Paulo, Brazil

Manufacturers also of MAJESTIC RADIO



Model 500. Food storage area, 9.68 sq. ft. Exterior dimensions: Height, 54 $\frac{1}{2}$ in., width, 24 $\frac{1}{2}$ in., depth, 20 $\frac{1}{2}$ in., depth overall, 25 $\frac{1}{16}$ in. Two ice trays—42 ice cubes—4 pounds of ice.

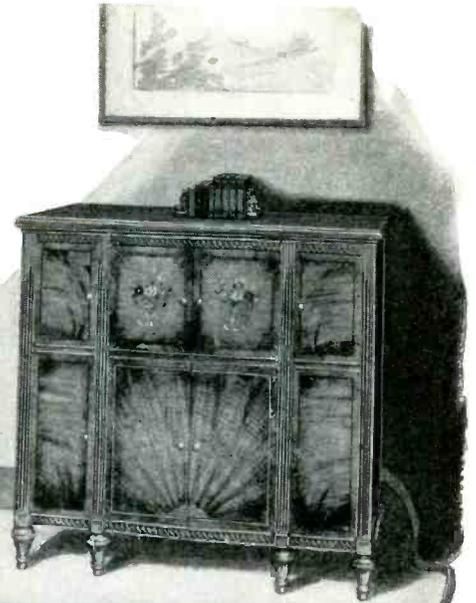


Model 700. Food storage area, 13.05 sq. ft. Exterior dimensions: Height, 55 $\frac{1}{2}$ in., width, 30 $\frac{1}{2}$ in., depth, 23 $\frac{1}{16}$ in., depth overall, 27 $\frac{1}{16}$ in. Four ice trays—84 ice cubes—8 pounds of ice.

Majestic

ELECTRO-SEALED

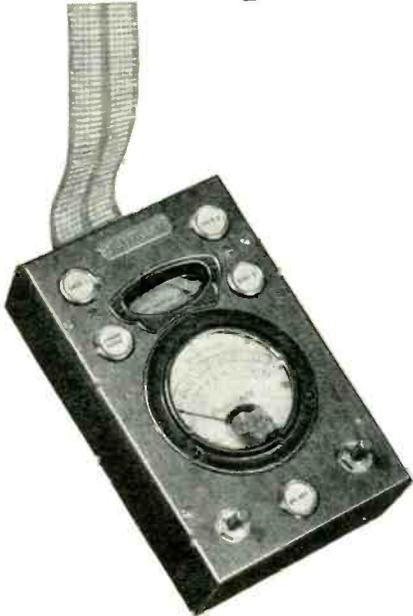
REFRIGERATION



FIRST AGAIN!

Capehart

ALADDIN CONTROL



An Exclusive Development of the Capehart Engineering Laboratories

WITH Aladdin Control, Capehart again wins universal recognition for leadership first achieved with the introduction of the famous Series 400 DeLuxe Instruments.

Capehart Aladdin Control gives the ultimate in remote operation, providing full and complete control of both the phonograph and radio from any number of remote locations. It meets every requirement.

From any Aladdin Control Station you can

1. Tune radio to any station. A Kilocycle Dial on each Aladdin Control Station shows to what wave length radio is tuned—Meter tuning.
2. Turn all current off and on on all Aladdin Control Stations, all speakers and the instrument.
3. Turn off and on each individual speaker—voice coil and A.C. leads.
4. Increase or decrease volume for all speakers.
5. Switch from phonograph to radio or vice versa.
6. Reject any record.

Capehart Aladdin Control has advantageous features not to be found in any other remote control device. The kilocycle meter on each Aladdin Control Station enables you to tune into any radio station desired and also to know to what wave length and station the set is tuned.

Three Aladdin Remote Stations and three speakers can be used with standard instruments. Special models available for operation of any required number of Remote Stations and speakers.

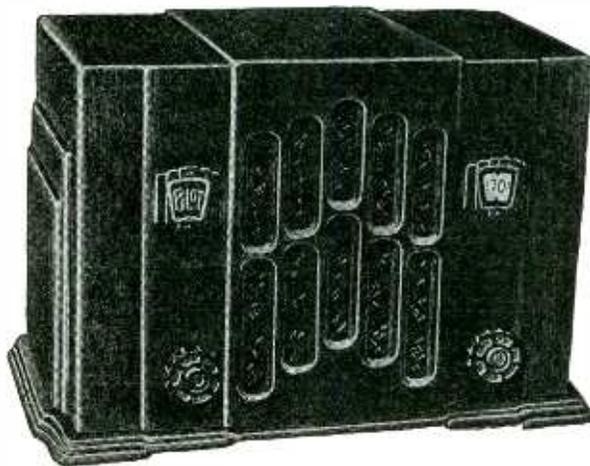
The addition of Aladdin Control, now available on all models of the Series 400 instruments, meets a long felt demand for complete remote control. It further enables Capehart dealers to increase their profits through increased units of sale—to dominate the quality market and to identify themselves as the outstanding, quality musical instrument dealers in their respective cities.



THE CAPEHART CORPORATION

**FORT WAYNE, INDIANA
CABLE ADDRESS: CAPECORP**

The First of the
Jubilee Series
 marking PILOT'S 25th
 Year of Uninterrupted
 Service to Radio



- **PILOT Model E-20:** six-tube super-heterodyne, A. C. or D. C. dynamic speaker, 3-watt output, illuminated dial, automatic volume control, noise level control, single Vernier tuning control, diode detection; beautiful inlaid burl-walnut cabinet of scintillating beauty; 7" by 8" by 11¼". —It is almost unbelievable, yet it is only the beginning of the miracles Pilot is preparing to give you and your customers in the Jubilee Line.
- **PILOT Model B-2:** four-tube A. C. and D. C. super-heterodyne, with dynamic speaker, attractive solid walnut cabinet, 5½" by 7" by 9½", illuminated dial, single Vernier tuning control, volume control. The classic beauty of the cabinet and the performance of this radio receiver have received instantaneous acceptance.

PILOT "Miniatures"

The two models shown are a preview of the PILOT "Miniature" sets in the Jubilee Series—tiny, but with the wallop of a giant—full, powerful, selective super-heterodynes, with dynamic speakers, incorporating the latest development in tubes and circuits. They compare only with larger models and include the latest scientific musical development in the field of acoustics. Made by master craftsmen, in the largest self-contained radio plant in the world.

JUBILEE SERIES PRICE RANGE—\$20 TO \$100

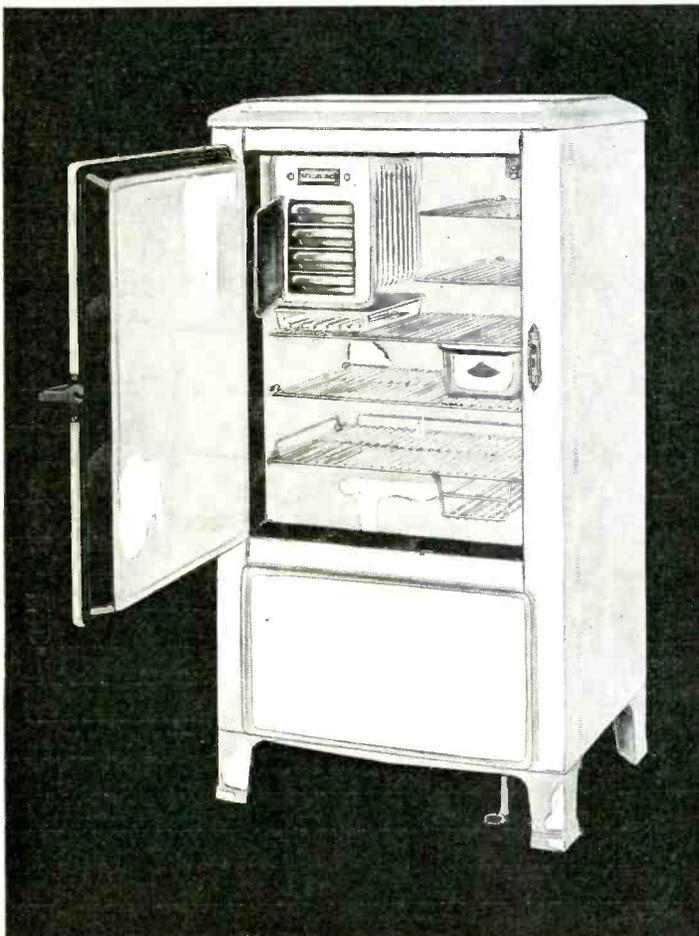
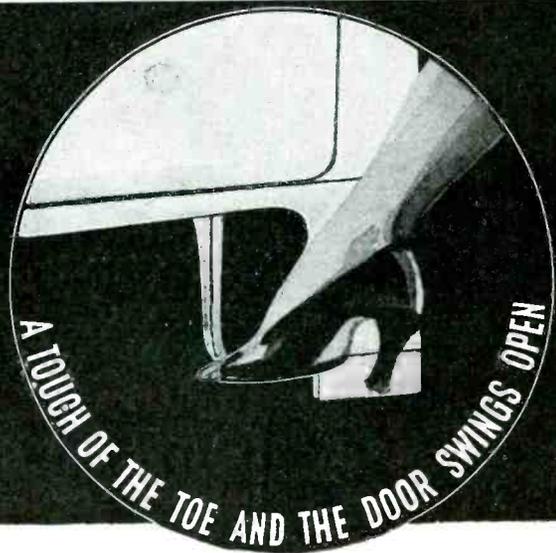
Sold only through authorized distributors—write your's TODAY

PILOT RADIO & TUBE CORP.

LAWRENCE  TRADE MARK MASSACHUSETTS

THEY MAY **LOOK** AT OTHERS

They Want
to **TRY**
THE **LEONARD**



MODEL PL-751 (7½ cu. ft.)

LEONARD

ELECTRIC REFRIGERATOR

PRICES START AT \$112 F. O. B. FACTORY • INSTALLATION AND TAX PAID

**Because it has more ACTION features
—including the exclusive LEN-A-DOR**

Women are not content just to *look* at the Leonard Electric. They pause long enough to admire its beauty of design and finish—then they want to *try* its many action features for themselves.

The LEN-A-DOR, for example—Leonard's exclusive self-opening door, which cuts kitchen mileage in half, and is called the handiest thing in the home! The sliding dairy basket (also exclusive); the sliding and telescoping shelves! The vegetable crisper, Chill-ometer with its 8 freezing speeds, the Steady-Kold Defroster (refrigerates while it defrosts), and the automatic safety cut-out.

These and other outstanding Leonard features pack your demonstration with *action*. They appeal instantly to women—make the new Leonard Electric easy to sell and profitable to handle. Add Leonard's prestige and reputation for quality—built over a period of 52 years—and you can understand Leonard's phenomenal sales success.

There are 10 new models (4 all-porcelain)—a rare combination of beauty, capacity, convenience and value. Write or wire *now* for details, as desirable territories are being rapidly closed.

LEONARD REFRIGERATOR COMPANY
14259 Plymouth Road, Detroit

(543)

Please send me details regarding the new Leonard franchise.

Name _____

Address _____

City _____ State _____

(14259)



NEW EMPIRE UNIVERSAL \$25. list

Licensed by RCA and associated companies
 110-120 volts, 25-60 cycles, A.C.-D.C. Other volt-
 ages available. Net weight 7 lbs.—Size 10 3/4" x
 6 3/4" x 5 1/2". Complete with RCA tubes
 Carrying case \$2.

Big Set Pick-Up and Tone Response

...because—it has all the NEW TUBES, 25Z5, 43 Pentode, 39, 36 and 37
 ...because—it has a full 5-in. Rola dynamic speaker
 ...because—it is precisely built by an organization with 12 years of radio experience

TEST IT—Then sell it against any other \$25. set

Send for descriptive literature including a complete line of midgets and consoles.
 Exclusive distributorships open.

Manufactured by

EMPIRE ELECTRICAL PRODUCTS CO.
 102-106 Wooster Street, New York City

"Established in Radio since 1921"

YOU can create sales with

Here is a simple rugged mech-
 anism, easily installed on any
 phonograph, which makes it
 possible to play OLD records
 (78 rpm) and NEW long-play-
 ing records (33 1/3 rpm) by
 simply pressing a lever!



Perfect for ANY stand-
 ard make electric phono-
 graph, and an extremely
 important merchandis-
 ing development for
 YOU. Get in touch with
 your jobber or with us
 for demonstration, NOW!

List Price **\$6.00**
 \$6.50 west of the Rockies.

NEW ERA SPECIALTIES CORPORATION

Executive Offices
 120 Broadway, New York City

Sales Offices
 21 Spruce Street, New York City

Change DC to AC with

JANETTE ROTARY CONVERTERS

For Farms—Ships—City
 Apartments—Automobiles



Wherever the current supply is DC, use JANETTE Rotary Converters to operate your AC receivers.

JANETTE Converters are filtered to give radio results as good as, or better than, that obtained with central station AC. Built to outlast the radio set.

Available in 15 sizes. Capacities from 20 to 2500 watts. Input voltages of 6, 12, 32, 115 or 230 volts. Standard machines deliver 110 volts, 60 cycles AC.

MAIL COUPON FOR DETAILS

JANETTE MFG. CO.
 555 W. Monroe St.,
 Chicago, Ill.

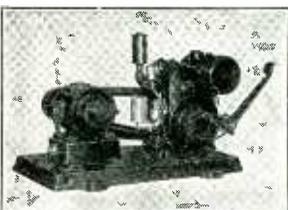
Gentlemen: Please send prices and details on your:

- Rotary Converters
- Auto-B-Power (B-eliminator for auto-radio)
- Gas Engine Generators

Name

Address

City State



Above: Gas engine-operated JANETTE 110-volt, 60-cycle generator. Capacities: 300 to 2250 watts. Ideal for sound-trucks, amplifiers, P.A. systems, etc.

EVERY dealer in radio tubes could more than double his tube business if only half of the radio owners who now replace tubes on an average of once every five years could be persuaded to replace every two and one-half years.



Every advertising and merchandising effort put forth by Ken-Rad is devoted to bringing to its dealers and distributors their share of this enormous undeveloped tube market.

Ken-Rad
Radio Tubes
 DEPENDABLE LONG LIFE

The Ken-Rad Corporation, Inc.
 Owensboro, Ky.
 Division of Ken-Rad Tube and Lamp Corporation

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You need this shop equipment

Own it at NO COST

Note: These offers by the maker of National Union radio tubes are subject to withdrawal without notice—Act now!

Of course you need modern equipment to carry on an intelligent profitable service business. Conserve your cash. Don't invest money in expensive equipment when you can own it without cost—the easy National Union way. Which of the items listed below do you need? They are Free—Get Details.

TWO SERVICE MANUALS by John F. Rider: Volume I—more than 2000 diagrams—1000 pages. Includes chassis wiring diagrams, voltage data, electrical values, color coding, socket layouts, peculiarities of radio receivers, etc. Volume II—absolutely non-duplicating. Over 700 pages covering new sets up to 1932 Radio Show. Point to Point resistance data. Each in handsome green imitation leather gold stamped binder. Free with small tube purchase.

READRITE TUBE TESTER: For home or store tube testing. Efficient. Neat. Compact. Fabricoid covered case. Pilot light illuminates dial. Free with small tube purchase. Small deposit.

OSCILLATOR AND OUTPUT METER: Full broadcast range plus intermediate frequency range covered by leading types of superhets. Rugged construction. Sturdy fabricoid covered carrying case. Free with small tube purchase and small deposit.

THE UNAMETER: Most modern tube tester. Tests over 50 types. No adapters. Dials scaled in color. Easy reading. Fool-proof meter protection. Finished in gold and colors. Efficient convincing tests. Portable or Counter models. Free with small tube purchase and deposit.

THE READRITE 1000 TESTER: Precision instrument designed for newest method of testing continuity, capacity and voltages without pulling chassis. Tests through set sockets the resistance of voltage dividers, series resistors, transformer primaries—secondaries, filter chokes, speaker fields, capacities, paper-mica type condensers, voltage of tube circuits. Valuable asset for profitable service work. Free with tube purchase and deposit.

HICKOK OHM CAPACITY-VOLTMETER: Accurate thorough tests of component parts of a radio set old, new or future models. Tests continuity of circuits. Resistance up to 30 megohms. D. C. Voltages up to 600 volts. Capacity of electrolytic and paper condensers up to 15 Mfd. Leakage or dielectric strength of paper condensers and insulation. FREE with tube purchase and deposit.

Ask Your Jobber Salesman!

BENCH KIT—FREE!



No need to play hide and seek with nuts, bolts, screws, resistors and other small radio parts when you own this handsome, sturdy, metal, parts box. This box was manufactured specially for National Union by one of the country's leading steel companies. It is beautifully finished in green and golden yellow and contains 31 compartments scientifically arranged.

Don't let elusive parts waste your time and hold you up on jobs.

National Union gives you this metal part container, Free, no deposit, with a small purchase of National Union Tubes.

SEND COUPON NOW!

NATIONAL UNION RADIO CORP. OF N. Y.
400 Madison Avenue, New York City

Sirs: I am interested in following equipment: Readrite Tube Tester Oscillator and Output Meter Readrite Resistance Tester Volume I Volume II Unameter Ohm Capacity Bench Kit

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WANTED: Sales agents to represent manufacturer of nationally known line of Radios, Refrigerators, Electric Washers and Commercial Refrigeration equipment selling to Distributors and Dealers. Potential territory available. Generous commission. AW-173, Radio Retailing, 330 West 42d St., New York City.

MEN WANTED. We require a man in every community, and every industrial plant, full or spare time. The work pays well, from \$1 to \$3 an hour. You simply recommend and call to the attention of business men and fellow employees business and technical books published especially for them so they can make more money. No experience required. You can make a substantial extra income quickly and easily by simply showing our lists. Complete equipment free. Write Tom Crawford, Dept. R.R., McGraw-Hill Book Co., 330 West 42d St., New York City.

MANUFACTURERS' AGENTS WANTED CONDENSERS

A few sales territories open to established sales organizations actively contacting wholesalers or distributors. High quality product with good sales and income possibilities.

MORRILL AND MORRILL
 30 Church St., New York

Representatives Wanted

Volume control manufacturer has a few territories open for representation by sales representatives or sales organizations. Write for complete information giving in first letter territory covered, lines represented and experience with references. Men with jobber following preferred.

RW-174, Radio Retailing
 330 West 42d St., New York City

SPECIAL NOTICE:

To the Radio Industry

Advertising in connection with legitimate offers of surplus stocks and discontinued models of radio merchandise is acceptable in this section of "Radio Retailing."

Extreme care will be exercised by the publishers to prevent the use of advertising in the Searchlight Section to encourage price cutting on current models of merchandise or equipment. Nor will advertising which invites violation of the dealer's contract with the manufacturer be acceptable.

All merchandise offered in the Searchlight Section must be accurately and fully described and must be available on order.

RADIO TUBE EXCHANGE OF AMERICA

123 Liberty Street, New York, N. Y.

Dealers have been looking for these features in tubes.

1. A tube that can be sold below list and dealer still realizes a good profit.
2. A tube concern that is reliable.
3. Tubes are boxed in Popular Perryman Boxes, guaranteed for 3 months.
4. Tubes that were manufactured to sell at list.

We offer to the dealers at the following prices.

201A—\$.25	230—\$.38	89—\$.40
112A—\$.30	231—\$.38	56—\$.32
171A—\$.30	232—\$.45	57—\$.35
226—\$.27	233—\$.50	58—\$.35
227—\$.28	222—\$.50	59—\$.40
224A—\$.35	234—\$.40	82—\$.35
235—\$.35	236—\$.40	83—\$.35
245—\$.30	237—\$.35	210—1.00
280—\$.28	238—\$.35	250—\$.90
247—\$.35	239—\$.40	281—\$.80

Orders must be accompanied by 20% cash. Jobbers territories open.

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 Complete Stock of NEW
 Radio Replacement Parts

Hard to Get Parts in Stock
 Power Packs and Speakers Repaired
GRANT RADIO LABORATORIES
 6521-R South Halsted St., Chicago, Ill.

HUGE SAVINGS IN USED PUBLIC ADDRESS EQUIPMENT

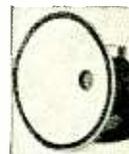
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Heavy Duty Peerless 12-inch Dynamic P.A. Speakers, complete with 110 volt rectifier or field coil of any impedance. Output transformer also included. Wholesale Dealers' Price \$3.75. Large Stock of repair parts for Peerless and other Speakers.

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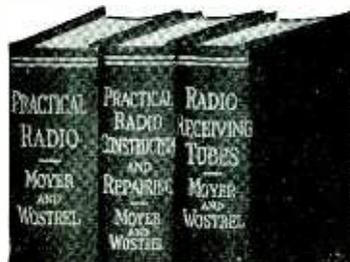
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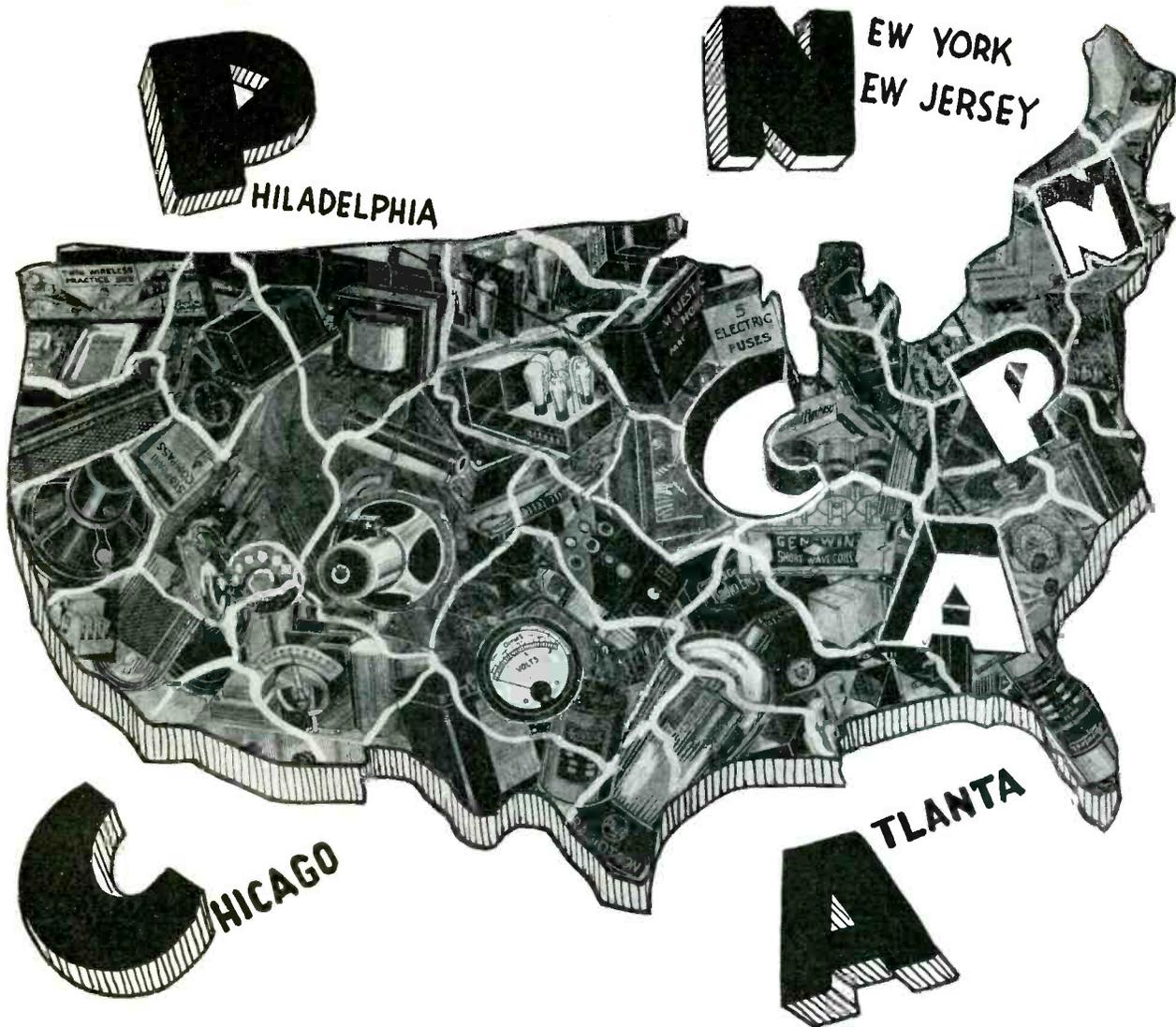


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Federated Purchaser is not just another mail order house. We have gone to expense and trouble to locate our branches to save you time and money.

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DEWALD DISTRIBUTORS and DEALERS are making money on this amazing receiver which can be operated anywhere The Five Tubes and

DEWald Dynette adaptation for 6 volt use makes radio's latest development available for Automobile and Farm operation where batteries or eliminators must be used; for 32 volt use on Farms where power is available; also in Foreign Countries and on Steamships where 220 volt supply is used; and for regular use on AC or DC current employing the regular 110-120 volt current. 25-60 cycle.

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ALL ELECTRIC SINGLE UNIT
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Dynamic Speaker together with Built-in Aerial have opened an Unlimited Field for this merchandise . . . An excellent set for the Home, Office, College, Yacht and foreign countries.

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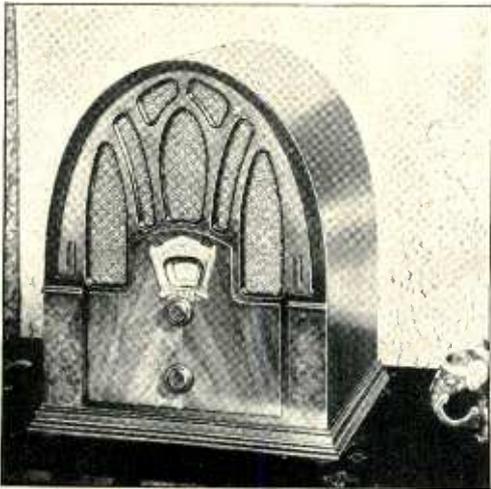
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CROSLEY Announces a New LEADER in the battle for Radio Sales



The Crosley LEADER

You won't believe it until you see and hear this new radio marvel. A 4-tube Superheterodyne incorporating illuminated dial, combined volume control and on-off switch, full floating moving coil dynamic speaker, and newest type tubes. Dimensions: 12½" high, 10" wide, 8" deep. Priced to sell by the thousands.

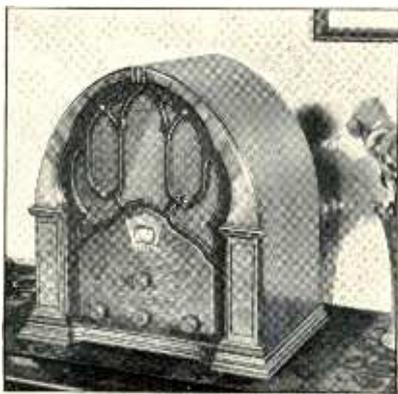
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These newest 1933 model Crosley radio sets offer such startling values that no dealer need consider cut-price, over-stock, liquidation, obsolete, sales-promotion, or orphan radio sets heretofore offered in this price range.

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FIVER Lowboy Console, \$29.99
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Full Floating Moving Coil Dynamic Speaker. Complete,
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Superheterodyne, Automatic Volume Control,
Tone Control, Newest Tubes, Latest Features. Complete,
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10 Tube TENACE \$ **39.99**
TENACE Lowboy Console, \$49.99
Superheterodyne, Automatic Volume Control,
Tone Control, Latest Tubes, Newest Features. Complete,
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and Two New Sensational 12 TUBE Radio Values

The TWELVE
The TWELVE Lowboy Console
Superheterodyne, Automatic Volume Control, Tuned Image
Suppressor Pre-selector, Pentode Output, Hairline Shadow
Dial, Tone Control, Full Floating Moving Coil Dynamic
Speaker, Newest Type Tubes, static control, and many
other recent Radio Developments.

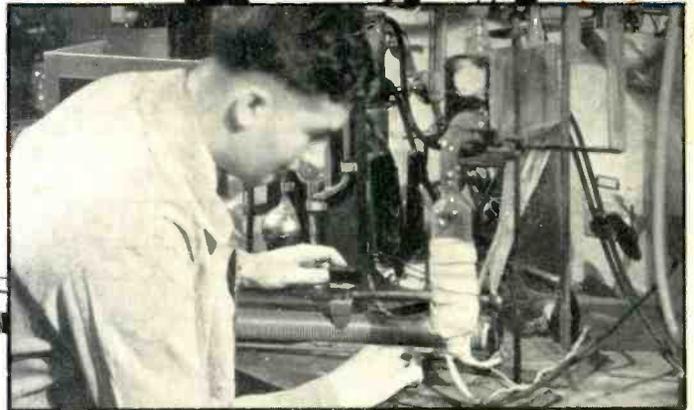
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TOMORROW... A TUBE OF STILL HIGHER QUALITY!**

NEVER satisfied. Everlastingly seeking to improve. Restlessly striving to better what radio experts long ago conceded to be the best. These brief phrases give a clue to the spirit of the men who design and make RCA Radiotrons.

Improvement in the already superb quality is not confined to new tube types. As new ways to make a better product are discovered, they are put into effect. The process is almost constant. Better RCA Radiotrons are produced today than were ever produced before.

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