

FEBRUARY, 1936

RADIO RETAILING

INCLUDING
SERVICE
AND
INSTALLATION
SECTION

THE BUSINESS MAGAZINE OF THE RADIO INDUSTRY

McGraw-Hill Publishing Company, Inc.

25 Cents per Copy

At the Head of the Profit Procession

RCA Check-up Deal *

The RCA Radio Check-Up Plan, originally designed to sell radio tubes, and found to sell service, parts, sets and everything else your shop handles, has swept the country from Coast to Coast.

The phenomenal success of the Check-Up over the past six months has resulted in the expansion of the fundamental idea to mammoth size.

HERE'S WHAT WE ARE DOING:

Making available a deal involving those items found most profitable by dealers, such as window display, direct mail pieces, stuffers, record cards, etc.

HERE'S HOW WE ARE SUPPORTING THE CHECK-UP:

1. Bi-monthly ads in Saturday Evening Post and Collier's, and other leading magazines.
2. Spot broadcasting over 30 stations.
3. Newspaper advertising in over 124 cities.

*Attend RCA Service Meetings for profitable ideas.
Now showing: new sound film on how to sell the Check-Up to customers.*

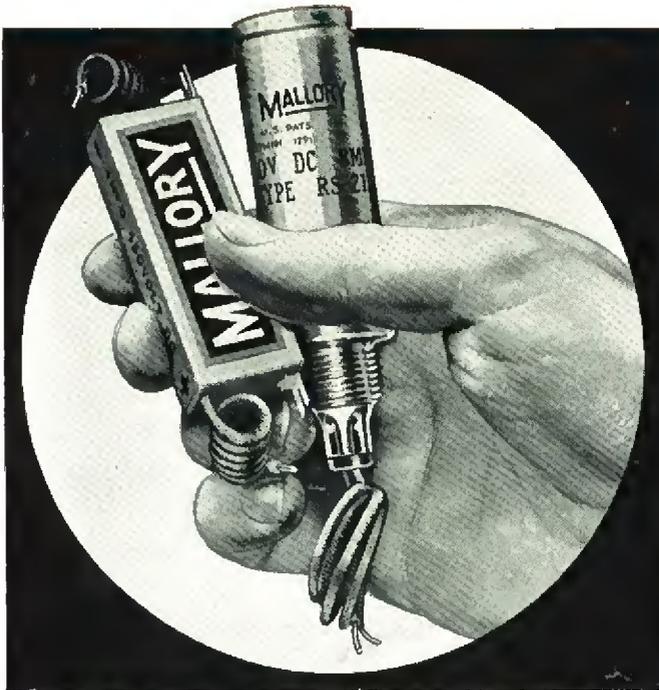
*See your distributor's salesman on how to obtain this and other material



RCA RADIO TUBES

RCA MANUFACTURING CO., INC., Camden, N. J., an RCA Subsidiary

For the First Time— Universal Application!



Mallory Condensers are manufactured under U. S. Patents 1719073, 1714191, et al.

Now...69 **MALLORY** REPLACEMENT CONDENSERS

service 100%
of all* radio sets

*radio sets using electrolytic condensers

For the first time, the service man is offered a practical universal mounting feature for carton type condensers.

For the first time, the service man has available a practical universal mounting feature for round can condensers.

For the first time, the necessity for splicing leads has been eliminated.

For the first time, absolute protection against humidity is afforded.

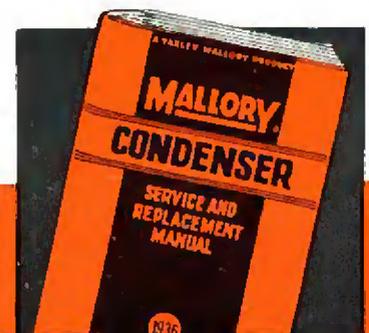
Here are but four of many constructional features of the new Mallory line. *But*, over and above constructional features, is a fifth feature — for the first time — the New Mallory Condenser Service and Replacement Manual, which gives in detail the universal application

of these condensers in every day service work. It is the most valuable condenser help a service man can have — the detailed analysis of problems submitted by over 29,000 service men. Have you received your copy? If not, write us today, on your business letterhead.

Cellophane separators —
Etched anodes —
Stitched anode leads —

— of course, all important improvements pioneered or developed by Mallory are incorporated in Mallory Condensers wherever they add to quality.

P. R. MALLORY & CO., Inc.
INDIANAPOLIS INDIANA
Cable Address—Pelmallo



RADIO RETAILING

RAY V. SUTLIFFE
Editor

W. W. MacDonald **T. H. Purinton**
Managing Editor *Assistant Editor*

Harry Phillips
Art Director

HOWARD EHRlich
Vice-President

H. W. MATEER
Manager

Tom Blackburn **George Tenney**
Chicago *San Francisco*

Leonard Church **H. S. Knowlton**
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NEXT MONTH—

BROADCASTING — Numerous articles, items and interviews that will post our readers on the latest developments in broadcasting—valuable information that can be used to clinch set sales—will appear in the March issue.

The crucial relationship of government control to station allocation and program policies will receive special consideration.

PHONO-COMBINATIONS — Dealers contacted in a coast-to-coast survey tell what is wrong with the combination business, suggest methods of developing this business into what it should be.

IRSM CONVENTION — Copies of Radio Retailing will be distributed at our booth at the Hotel Sherman, March 27-29.

McGraw-Hill Publishing Company, Inc.
330 West 42d Street, New York, N. Y.

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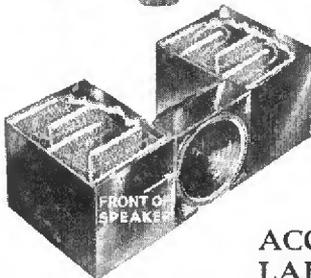
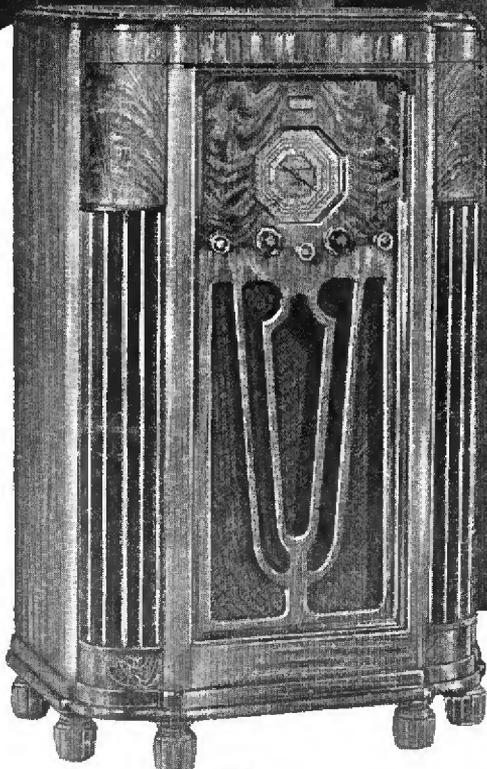
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Secretary

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THAT STROMBERG-CARLSON *LABYRINTH* SURE SELLS SETS!

THEY CAN *HEAR* THE DIFFERENCE AND *SEE* THE REASON WHY



No. 84 Four Range High Fidelity (Metal Tubes) with the Acoustical Labyrinth. Price . . . \$285

THE ACOUSTICAL LABYRINTH

An exclusive Stromberg-Carlson feature that eliminates unnatural booming, blurred or fuzzy tones and other shortcomings of ordinary bass reproduction. Its enclosed non-resonating air column damps out unwanted vibrations, halts speaker cone motion the instant current stops flowing and greatly increases the frequency range and volume the speaker can carry.

THE ACOUSTICAL LABYRINTH has the most forceful selling appeal in radio today.

Experts hail it as the greatest acoustical engineering feat since radio began. It is a feature whose value a customer can *hear* and which he can *see* and *understand*.

No wonder the Stromberg-Carlson with the exclusive "Labyrinth" is gaining in sales faster than any other radio line.

"There is Nothing Finer Than a Stromberg-Carlson."

There are 21 Stromberg-Carlson models, priced from \$59.50 to \$985. All-Wave Antenna Kit, \$7.00. (Slightly higher Texas, Rockies and West). Liberal retail finance plan available to all dealers.

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

Stromberg-Carlson

Radio's Most Attractive Mantel Set

The **BELMONT**



Model 778-A

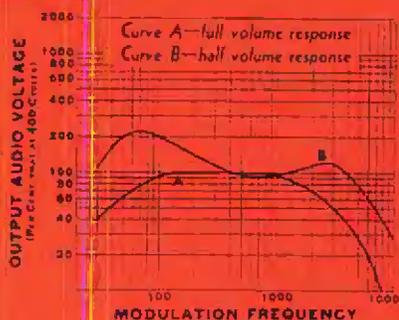
● Sales appeal—the initial eye catching, attention compelling factors which capture and hold a prospect's interest, is a beautiful dial and exquisite cabinet work—exemplified in the Belmont 778-A.

This receiver lives up to the fine expectations created by its appearance. Its three channel broadcast and short-wave chassis uses the latest tubes to achieve compactness, power, and simplicity. A seven-watt amplifier circuit feeds a full 8" dynamic speaker. The fidelity curves indicate the exceptionally fine tone.

In addition to the unique indirectly illuminated exclusive Belmont dial there are optional band expansion for high fidelity, automatic tone compensation, tone control, band spreading dial, A. V. C., suppressor injection oscillator coupling, 6K7, 6C5, 6J7, 6K7, 6Q7, 6F6, and 5Z4 tubes. The satin finished cabinet is 21½" x 12" x 10½" deep.

BELMONT RADIO CORPORATION
1257 Fullerton Ave., Chicago, Illinois
Cable Address, Belrad

FOREIGN
AND DOMESTIC
RECEPTION • RICH
TONE AND EXTREME
SELECTIVITY • SEVEN TUBES,
A-C SET, IDEAL
FOR SMALL HOMES
WHERE SPACE
IS AT A
PREMIUM



BELMONT
THE DEPENDABLE
RADIO

DEPENDABLE



FOR PROFIT AND PERFORMANCE

TUNG-SOL is the line that provides all NINE BASIC QUALIFICATIONS essential in the "plus profit" retailing of radio tubes. Ask the Tung-Sol wholesaler about these essentials NOW. There are still desirable locations where independent radio retailers and service organizations could qualify as Tung-Sol retail agents.

TUNG-SOL

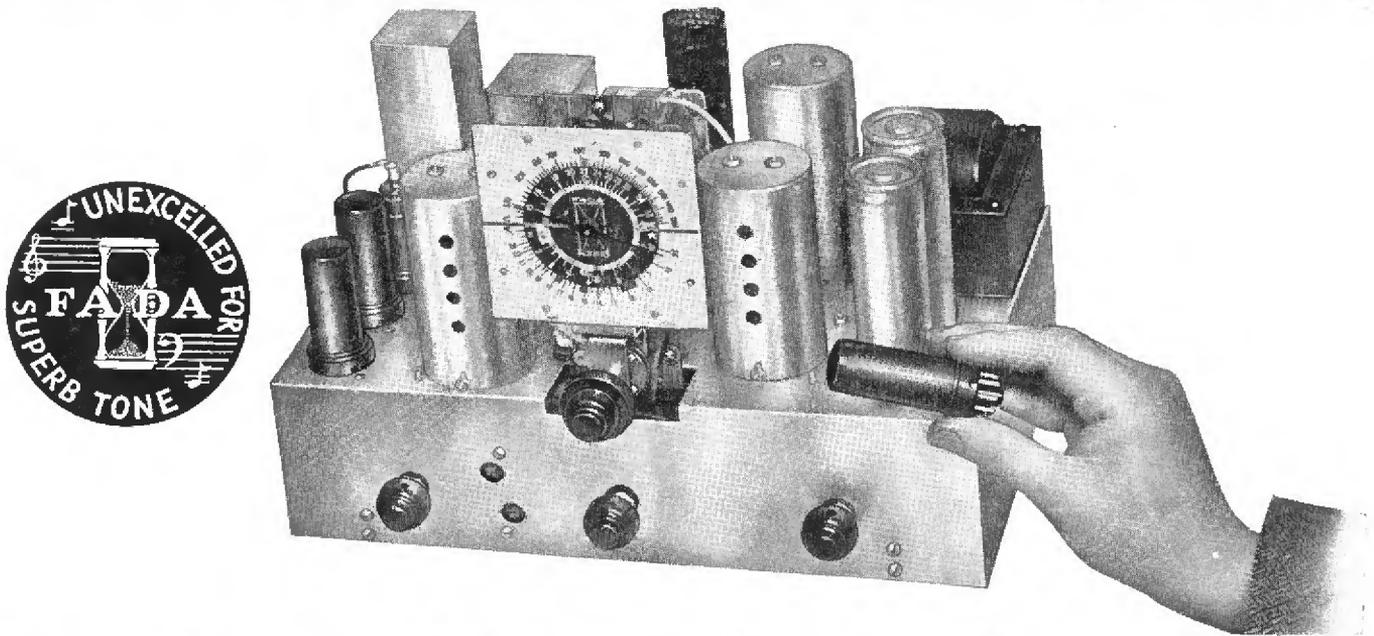
Tone-flow radio Tubes

TUNG-SOL LAMP WORKS, INC.
Radio Tube Division

SALES OFFICES: Atlanta, Boston, Charlotte,
Cleveland, Chicago, Dallas, Detroit, Kansas City,
Los Angeles, New York.

General Office: Newark, N. J.

The INSIDE STORY OF FADA RADIO



The Fada Metal Tube Chassis Is Famous For Its Service-Free Performance

IT is the wise radio buyer who gets the all important "inside story" first. He knows that there is a world of difference between printed specifications and actual performance.

The inside story of every Fada radio is one of unmatched trouble-free performance, achieved by a method of controlled production unique in present day radio manufacture.

The "outside story" of every Fada model will instill that all important desire to buy . . . but it's the exceptional "inside story" service-free performance that keeps every Fada sold . . . the surest road to added consumer acceptance and greater profits.

We invite every dealer to get the all important "inside story" of Fada.

Fada prices range from \$19.99 to \$144.50 . . . From Compact to Hi-Fidelity console . . . Straight AC, AC-DC . . . Storage Battery World-wide receivers and 32 Volt receivers for Farm and Marine Power plants



FADA RADIO and ELECTRIC COMPANY

Long Island City, N. Y.

Cable Address "Fadaradio"

SPRING SALES AMMUNITION!

New!
FEATURES!

New!
MERCHANDISING!

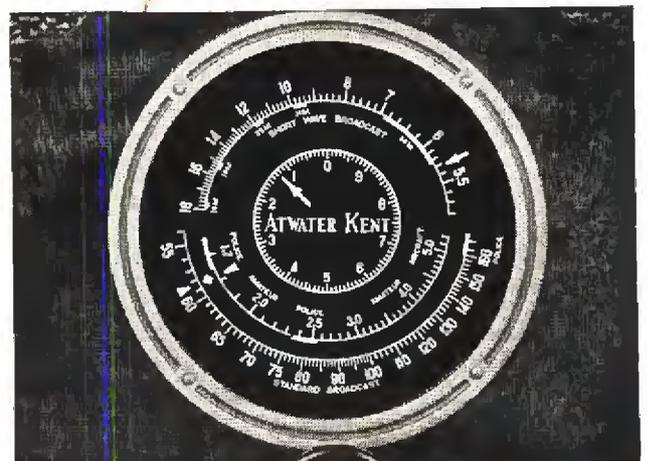
New!
**DRAMATIC
ADVERTISING!**

Watch ATWATER KENT

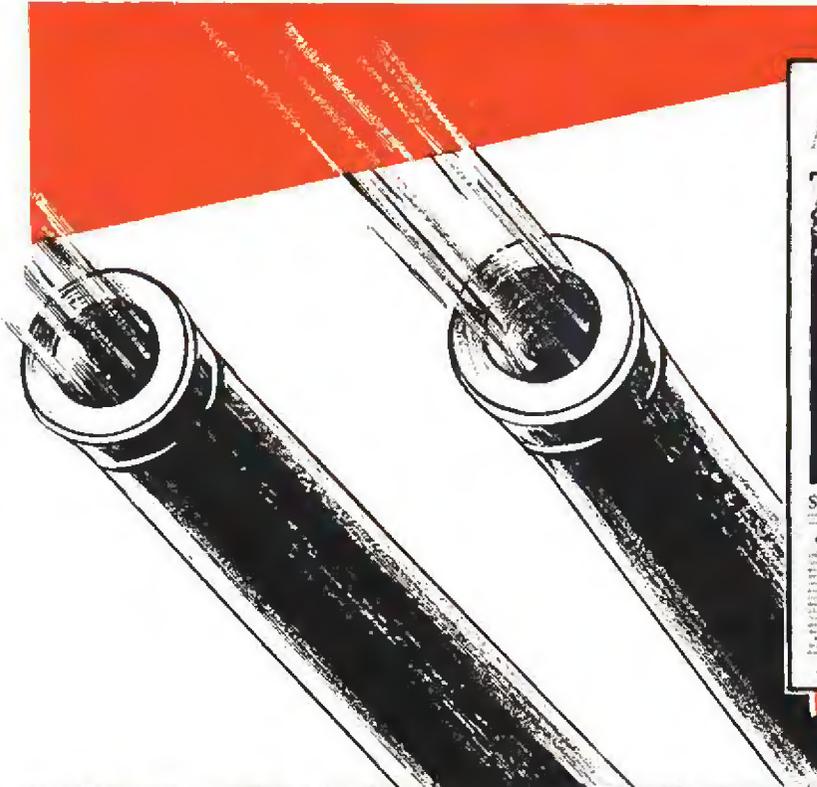
*boom your
business in 1936!*

IT'S A BIG ATWATER KENT YEAR! New powerful advertising, vigorous, effective! New Atwater Kent features, eye-appealing, sales-clinching. And a 1936 line of radios that match dollar for dollar, tone for tone, any radio on the market. Right now, millions of people are asking to see Atwater Kent's Arrow-Light Tuning and new Rainbow Dial. Millions are waiting to hear Atwater Kent's new tone realism—Control-Room Reception! It's your chance! Show them the radio that *sells* and stays sold!

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



NEW ARROW-LIGHT TUNING—NEW RAINBOW DIAL— are among the new Atwater Kent features! Adds beauty and eye-appeal. Simplifies tuning. Just follow the arrow to the station you want.



NOW LISTEN TO A BROADCAST IT!

HAVE YOU EVER LISTENED TO A PROGRAM IN THE *Control Room*?

If you had, you would never be satisfied with an ordinary radio. Here's why!

New Indicator Dial - New Arrow Light Tuning

ATWATER KENT
THE RADIO WITH *Control Room Reception*

MORE HARD-HITTING FOLLOW-UP SMASHES!

At last.. A RADIO THAT PASSES YOU THROUGH THIS FORBIDDEN DOOR

How Atwater Kent brings the marvel of *Control Room Reception* to your fingertips!

ATWATER KENT RADIO WITH *Control Room Reception*



DOUBLE-BARRELED BLAST IN THE SATURDAY EVENING POST

FOR YOU—counter cards, window displays, direct mail helps, newspaper mats for local advertising—ask your Atwater Kent distributor.

WE TELL THEM . . YOU SELL THEM

DEALERS!

Sell

PIONEER
FARM RADIO
CHARGING
GENERATOR



\$49⁹⁵
LIST WITH A

REAL PROFIT FOR YOU

OPERATES 25 WATT ELECTRIC LIGHTS!
CHARGES RADIO AND AUTO BATTERIES!
DRIVES FARM POWER SAWS!
OPERATES A PUMP!

Starts WITH THE PRESS OF A BUTTON!

**PIONEER
GEN-E-MOTOR
CORP.**

CABLE ADDRESS: SIMONRICE, NEW YORK

CHICAGO

MAIL THIS COUPON

Pioneer Gen-E-Motor Corp.
466 W. Superior St., Chicago, U.S.A.

Rush details PIONEER 6-Volt Gas-Engine Generator.

Company
Address
By

R.R.

466 WEST SUPERIOR STREET

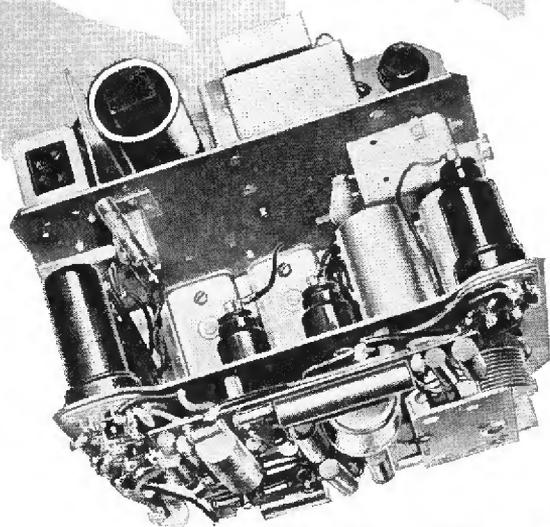
Out of a clear sky comes an entirely new car-radio!
the
AMERICAN-BOSCH
Skylark

METAL TUBES..DOUBLE-WINGED CHASSIS
Everything You Need to Get the Business!

IN home radio, the American-Bosch CentrO-matic Radio principle is the outstanding engineering contribution. Now, in the new double-winged Skylark chassis, another great achievement has been introduced in car radio. New performance, less wiring, fewer soldered connections, metal tubes—the finest example of engineering design and construction you will see this year.

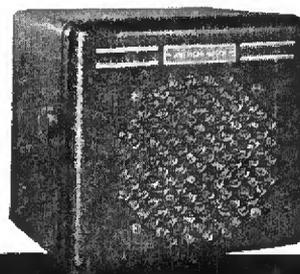
With this engineering achievement goes the best merchandising opportunity of the year. The line has: 5 tube, 6 tube and 7 tube types;—glass tube and metal tube models;—three types of speakers;—new finishes, and custom-styling in panels and mountings to enable you to dominate your territory.

If you want a new selling idea—if you want volume with a profit—if you want to lead in car radio sales, write or wire for the complete story.



MODEL 736—\$59.95.
Other models from \$39.95
to \$67.95

- ✓ 7 Metal Tubes
- ✓ Double-Winged Chassis
- ✓ Custom Styled Panels
- ✓ Built-in, Header, or Bulk-head Speaker models
- ✓ Exclusive etched glass dial with red tuning beacon



UNITED AMERICAN BOSCH CORPORATION
 SPRINGFIELD, MASSACHUSETTS

NEW YORK CHICAGO DETROIT

MAYBE YOUR CUSTOMERS WANT A FINE 6-Glass Tube Set



WITH Overhead Speaker



and Matching Panel Control



.. or Maybe THEY WANT IT WITH In-the-Set or Separate Case Speaker



WITH Steering Column or Matching Panel Control



... or Maybe THEY WANT A Powerful DeLuxe 6-Metal Tube Superheterodyne



WITH Overhead, Separate Case, or In-the-Set Speaker Steering Column or Matching Panel Control

UNIVERSAL MODELS

To fit perfectly in all makes and models of cars—with in-the-set or separate case speaker and airplane type steering column control. **Standard Model 18FW** . . . a fine 6-tube superheterodyne \$39.95

Master Model 28DM . . . an extra powerful 6-tube superheterodyne with full-tone control super-power supply system and streamline steering column control \$49.50

DeLuxe Model 33DM . . . a powerful 6 metal-tube superheterodyne with all the features of model 28DM plus a specially developed super-circuit system \$54.50

Three other models with separate case speakers at small extra cost.

OVERHEAD SPEAKER MODELS

With matching panel controls for most 1936 cars and many 1935 cars as low as . . . \$44.85



NEW *Tailor-Fit* SERIES

ARVIN

Car Radios FIT EVERY CAR
FIT EVERY PURSE AND PERSONAL DESIRE

● Arvin gives you everything in car radio . . . beautiful modern designs and finishes to match the new cars and harmonize perfectly with older cars . . . sturdy, dependable construction that assures lasting service. Powerful metal or glass-tube superheterodynes featuring the newest improvements in car radio—increased selectivity and sensitivity with matched antennae tuning system using high gain iron core antennae coils—built-in filter-loc motor noise suppression system and many other Arvin developments. All the many different chassis-speaker and matching panel control combinations you need to satisfy customer's desires. See your jobber at once for full information.

NOBLITT-SPARKS INDUSTRIES, Inc., COLUMBUS, INDIANA
Also makers of Arvin Radios for the home—and Arvin Car Heaters

ARVIN HAS EVERYTHING THAT MOST ANYONE COULD WANT IN CAR RADIO

For New 1936 Cars  For 1935 Cars  For Older Cars 

IF Replacement Tubes Go METAL

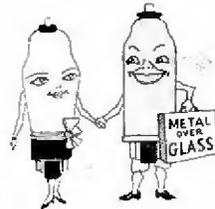
ONCE UPON A TIME tubes were nice and simple with standard bases and revealing glass envelopes ▶



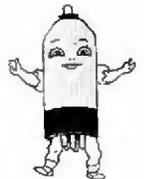
Then appeared a black cloaked stranger—who at once was accepted by most of our best families. He had a new kind of underpinning and a metallic mein. His actions were shielded ▶



But the "G" men soon got his number. A shot gun wedding was engineered with these results ▶



Now comes another blessed (?) event—an offspring with the old glass tube characteristics and adapted for old set use but, in looks, a spittin' image of his daddy ▶



GOING from the picturesque to the practical, what would be the effect of such a new type upon the replacement market?

"Not an honest tube . . . Would deceive the public—who would expect superior performance which could not be forthcoming because operating characteristics must be the same as the older types they are designed to replace . . . More money for same performance . . . Would slow up the sale of 1936 metal tube receivers . . . God help the poor tube makers, who are about crazy now with production problems."

These are the reactions of the opponents of such an idea. Possibly a majority group. But how about the other side? We quote one of the best known tube jobbers in the country:

"The new 'metal' replacement tubes could be priced at

a profit level—the only solution I can see to the present hopeless state of the replacement tube business.

"Set owners are asking, 'Can I get metal tubes to replace my glass ones?' They'll pay more, gladly, and get more.

"Would popularize the original metal tube and the new metal tubed sets."

And from a tube maker: "Tests show that this tube, in old sets, increases their sensitivity. Dealer survey reveals large majority favoring such a type."

Here is an important and highly controversial subject. Before yet another brain child makes her debut, all counties should be heard from.

Ray V. Suthiffe

EDITOR

WHY THEY BUY



41% ...

39% ...

37% ...

18% ...

12% ...

11% ...

10% ...

2% ...

2% ...

149 People Tell RADIO RETAILING What Really Induced Them

- BECOME CONVINCED THAT THEIR OLD SET IS OBSOLETE

- HAVE TROUBLE WHICH INVOLVES HEAVY REPAIR EXPENSE

- WANT TO TUNE IN ON FOREIGN SHORTWAVE PROGRAMS

- CAN'T BREAK THROUGH STRONG LOCAL STATIONS

- GET TIRED OF POOR CABINETS AND SMALL TABLE MODELS

- CRAVE MORE NATURAL AND REALISTIC TONE QUALITY

- NEED [MORE SENSITIVITY TO REACH DISTANT CHAINS

- GET MARRIED AND BUY A RADIO FOR THE NEW HOME

- RECOGNIZE THE CONVENIENCE OF A SECOND RECEIVER

By W. MacDonald

interested in radio than any other gadget it owns and likes to talk about it.

And if our tabulation isn't the swellest piece of sales ammunition the industry has seen for many a moon we've spent our postage-money foolishly.

Most people had more than just one reason for buying but in order to classify "bait" in order of importance we've picked the major reasons given in each reply.

How To Sell

To know why people buy is to know how to sell.

If 41 per cent of all set buyers spend their money primarily because they become convinced that their old receiver is obsolete then the thing to do is to increase advertising designed to encourage this feeling. If as much as 39 per cent of our business comes from people whose old sets have gone on the blink then selling through service calls is unquestionably of major importance.

If 37 per cent of all new customers fall because they want shortwave reception then this feature is still the best single sales feature the industry possesses. And if 18 per cent have sets so old that they won't tune out locals it is evident that we are missing a good bet. For few salesmen mention selectivity today.

Figures prove that 12 per cent trade up from old consoles and dinky little midgets simply because they don't like the looks of the things. The furniture appeal is again becoming a factor. We thought tone quality would show up high on the list but 11 per cent return indicates that tone has yet to be sold. And the fact that 10 per cent buy because their old models will not reach out for dx should induce us to resurrect sensitivity as a selling point.

Just 2 per cent of the business came from people who had no sets to trade. Ours is a replacement market. And 2 per cent resulted from a craving for more than one set. Make this trend grow.

This is just a sample of the "meat" found so far in consumer letters. Watch coming issues for further breakdowns. One farmer writes: "Bought a new set because the hired man spilled some glue on the old one." Another says: "Instruction sheets told me to turn two controls clockwise until I got the tone I wanted. Set sounded awful so turned 'em counter-clockwise and the music comes out grand." And what others tell us about features they like as well as those they don't like is a veritable munition plant of fodder for the sales guns.

WHEN an angler sets out to hook a trout he scans the sky, examines the character of the pool, checks the time of day and then selects the particular kind of fly he thinks the fish will fall for. A full creel would result if he could ask the trout what they wanted for breakfast but the dumb things can't talk.

Selling is much like fishing . . . lots easier if we are sure that ours is the right kind of bait. Fortunately, this can be determined by asking the customer. And this is precisely what *Radio Retailing* has done. We've asked 500 buyers why they bought.

Shortly after the last issue closed we asked 25 retailers for the names and addresses of people who had just purchased new radios and wrote direct to these buyers. No leading questions, mind you. Just asked 'em *why*. So far we have received 149 replies and more are coming in every day. The fact that many took the trouble to sit down and write proves that the public is perhaps more

to Spend Money for New Radios in December and January

News and Views

FROM AN AUTHENTIC SOURCE we learn that one of the largest general mail order houses in the country proposes to franchise radio, appliance and hardware merchants in towns not now served by the former's stores. These selected dealers will advertise and sell electrical appliances bearing the trade name of this nationally known house and at its catalog prices.

Such a policy would affect profoundly the policies and fortunes of many set manufacturers, jobbers and retailers.

It's an open secret that Sears, MW and others of this type have refrigerators, washers—and radios—whose appearance, performance and price leave little to be desired. Between the big four in refrigeration and these catalog firms competition in 1935 was fierce and bitter; with the latter getting their full share of the spoils.

This latest move for piercing deep into the territory of the independents, with experienced local representatives, will call for the application of every defensive and offensive tactic known to the trade.

♦ ♦ ♦

ALREADY IT STARTS. Republicans are lambasting F.D.R. for broadcasting his alleged political message to Congress. "So who has a better right to talk to the peepul," retort loyal Democrats. Followers of the elephant wrangle with NBC and CBS for equivalent airspace, broadcast red-hot playlets panning the New Deal from Chicago and the



"March of Time" dramatizes excerpts. Roosevelt retaliates with his Jackson Day speech.

Here's one time politics will do somebody good. Both parties realize the vital part radio will play in the coming campaign, start playing it to

the hilt 11 months in advance while the nation glues its ear to the loud-speaker. Radiomen, here comes business on horseback.

♦ ♦ ♦

ROSENTHAL AGAINST THE WORLD. This seems to be a fitting caption for the news item regarding the San Francisco cut-price grocer contemplating a constitutional test of California's much-discussed unfair practices act, described in the January issue of *Radio Retailing*. Challenging the power of the legislature to forbid selling at less than cost, selling by chains at different prices in different sections of the city, paying of secret rebates or allowances, Rosenthal



bucks the California Retail Grocers & Merchants Association.

Upon the outcome of the test, which will probably take months to complete, depends the success or failure of the West Coast act affecting radio as well as other commodities. Of greater importance will be the effect on similar legislation contemplated by other states.

♦ ♦ ♦

NEWSPAPERS HAVE CRIED "WOLF" so often about television that we suspect they will be caught with their trousers at half-mast when it actually does break. Latest reportorial jewel was a front-page blurb predicting announcement of a \$200 receiver for the general public within the year. This blossomed forth on a Tuesday. And on Wednesday RCA came out with a point-blank denial. Said R. R. Beal of Camden: "We are still engaged in the preliminary phase of our proj-



ect and are not yet in a position to contemplate commercial service."

Radio Retailing will whoop it up about television only when something definitely new happens. And unless we have rotten luck our suspenders will be properly adjusted when marketable equipment comes along.

♦ ♦ ♦

NBC COMMERCIAL Continuity Acceptance Department is a year old. Last week heard its capable head, Janet MacRorie, tell how National has raised the standard of sponsor's ad blurbs. No hard and fast rules; simply a firm insistence on "common sense and good taste." Look for further sugar coating of the publicity pills.

Sat next to NBC's new head, Lenox Lohr—the man whose keen insight and practical management made the Chicago Fair the big success it was. Mr. Lohr most assuredly will put new life into NBC's broadcasting policies.

"I view Radio as an invited guest into the home. As such it should, and will, conduct itself," he told us. A grand basic principle. Expect great things from the chains this year. This forceful executive, with a new perspective, will be a constructive factor.

♦ ♦ ♦

A STATIC REDUCING CIRCUIT designed to squelch much of the electrical noise picked up by receivers, particularly those of the shortwave variety, is being ballyhooed by the American Radio Relay League. Using two auxiliary tubes, applicable to certain existing circuits and practically all new sets, this new development will be used by at least one maker of communication receivers before spring. An engineer who

has heard it informs us that the thing cuts out racket generated by a spark-plug tester operating fifteen feet away and appears to have possibilities.

★ ★ ★

WHEN YOUR DOCTOR subjects the manly torso to the peering curiosity of his Fluoroscope . . . meters dance, lights flash and transformers hum . . . you expect to pay more and do. For the thorough once-over with a modern medical troubleshooting instrument is worth more than old-fashioned muscle-prodding examinations.

Why, for gossakes, don't more radio men pull the same stunt with classy, impressive new portable analyzers and tube checkers? We know one man who permitted an instrument company representative to nick his bankroll for nearly a hundred bucks in a weak moment, paid for the new gadget and then some, in extra service fees, within four months.

★ ★ ★

A BILL TO OUTLAW AUTO-RADIO in St. Louis, introduced by Alderman John J. O'Connor and endorsed by Major Albert Bond



Lambert of the police, to whom we award a set of hand-painted leather medals, has been properly squelched. The Automobile Club, Electrical Board of Trade and the RMA spoke against it. Defending orators were conspicuous by their absence. Said Bond Geddes, representing set makers: "Not one highway commissioner or highway engineer in 44 states has been able to cite a single accident caused by radio."

TRADE SHOW REVIVAL, urged by many dealers, still meets with firm opposition from at least four of the largest set manufacturers who feel that present policy of each concern running its own convention, showing new sets when and where it pleases, meets the practical considerations of the set manufacturer better. Until these leaders change their minds the chances of another radio trade show with all the old-fashioned fixings are mighty slim.

★ ★ ★

NOW CANARIES do their own pet shop ballyhoo, since a loud speaking system has been applied to bird merchandising in Bloomfield, N. J. W. N. Murphy, Radio & Television Sales Corp., of this city, conceived the idea, and made a \$50 installation that includes a trolley type mike which the proprietor may place before his choice warblers at will. A little boy heard a \$12 German Roller a block away and persuaded Grandma to buy it for him. The proprietor of Bill's Petland says it pays to advertise with sound effects.

★ ★ ★

MID-SEASON MODEL announcements have been frequent this year. This practice, however, is not universally condoned. "We have not changed a single model since we announced our line in June and we do not intend to until we bring out our new line for the coming season. Nothing, to my mind, would be more disastrous than to have new lines introduced in December or January," writes a large Chicago set maker.

★ ★ ★

CERTAIN DISTRIBUTORS who kicked over the applecart a year or two ago by selling compact sets of a well-known make to jewellers interested in radio as a loss-leader only

have repented and quit the practice. The game is no longer worth the candle. For the watch-and-ring men shoot the skids from beneath legiti-



mate dealers and put the kibosh on more business than their cash-on-the-nail patronage is worth. Jewellers continue to use radio as a football but buy from loft-artists.

★ ★ ★

A WHITE ELEPHANT AUCTION was staged by the Cleveland Chapter, IRSM late in January. Servicemen were invited to bring in radio parts and testing equipment, received 50 per cent of the amount the stuff went for.

★ ★ ★

GAZING INTO THE CRYSTAL BALL, we predict that servicemen of the future will adjust and line up more receivers, install new parts in fewer jobs. New sets now going into homes are larger, more expensive and better-built. Components will not fail as rapidly as in the depression-price midgets. On the other hand, high-fidelity models will have to be tuned up "right on the nose" to render good quality. This presages better business for test instrument makers.

★ ★ ★

NEWSPAPER ADVERTISING is the reason given by Abram Davega for the growth of Davega-City Radio over the past ten years. This chain of 29 stores leased large space in the Port Authority Building, New York, last month to house the entire contents of its warehouse.

"DOWNSTAIRS DISTRIBUTION"

- Old furniture dealers feature big consoles
- Carpet-baggers handle business from homes
- Specializing shops stock only trade-ins
- Several chains open branches in bargain districts



George H. Berger's second-hand furniture emporium in Little Rock, Arkansas, one of many outlets of this type now featuring used radios purchased from local dealers

REPOR TED from many sections of the country is the birth of many new outlets specializing in the sale of used sets. Purchasing trade-ins from established stores, selling to people who can afford only a few dollars for a receiver and even to small merchants in suburban towns, such shops already exist in sufficient number to affect the market.

Undecided is the trade concerning the economic wisdom of this newest merchandising move. Say most: "It's a good idea and will enable us to concentrate on new sets." Say some: "It will hurt the sale of cheap table models." Say a few: "We'd rather sell our own."

From random points come the following typical reports:

PITTSBURGH—Signs appearing over doorways of used furniture stores all over city reading: "Radio \$5."

BIRMINGHAM—J. M. Law, proprietor of the Radio



Second-Hand

Bargain House, selling nothing but used sets, informs correspondent that his business is geared for small profit and rapid turnover. He will take as little as \$2 profit on a set, figuring that he can always buy more sets than he can sell. Operating very much as used car lots operate, Law buys mostly from the trade, paying cash and selling for cash. Bookkeeping expense and credit losses are thus avoided.

All sets are put in operating condition before sale but no guarantee is given, with consequent elimination of service worries. All this permits him to operate on a small margin. Some 300 sets are now carried in stock and sales run about 100 per month. Customers are mostly farmers and others with small pocketbooks who are willing to forego the advantages of allwave reception and the last word in tonal quality in order to get music, political and sports broadcasts at low cost.

LITTLE ROCK—This city, located in the foothills of the Ozarks and with a trade territory that reaches far into untenanted America, sells a lot of second-hand radios for a town of 81,679. Like old automobiles, old radios seem to work west and south. West Seventh Street has more second-hand outlets than you can shake a stick at and most of them are now ballyhooing radio.

George H. Berger, trading under the name of the Holloway Company, operates a typical outlet. His source of supply is primary radio stores. Every week his truck goes out to fetch in used merchandise. All he demands is a set that will play, caring little about the finish. Models can be six or seven years old and still be acceptable. They are preferably, however, consoles of the



J. J. Law of Birmingham, Alabama's Radio Bargain House, handling used radios exclusively, drifted into this business from the hotel game

*Used Set Outlets
Springing Up All Over Country
•
Trade Not Yet Certain
About Effect on Market*

Radio Store Trend GROWS

larger type as Berger finds size is easier to sell than quality.

He is, in a sense, a wholesaler. For not only are his sets sold direct to the consumer but also to small town dealers who frequently come in from points a hundred miles away for a truckload of used stock. Prices average \$8. Berger buys for an average of \$6, making \$2 per deal. Back to the tiny towns go these used sets, where advertising of new models does not readily penetrate.

Second-hand set operators, we are told, usually have a purchaser in mind before they buy. The Holloway Company's clientele is largely among the negro shanties, cabins of poor whites. For as little as a quarter, fifty cents or a dollar down such people may buy sets priced at \$16 to \$25. For cash these same models sell at about half the time-price so the business might be said to combine somewhat the activities of the loan shark with the industry of a salesman. Berger moved over 100 sets in 1935.

CHICAGO—This city hasn't got its downstairs distribution of radio fully working yet. There are plenty of dealers who would welcome good second-hand outlets. Levinson's, radio chain, has started a store to handle its own trade-ins.

Vest-pocket merchants with a vague address dominate the second-hand market, such as it is. Every few weeks some one drops in to see Frank Fuller, Jr., head of the radio department at Commonwealth Edison. "I don't even know the names of these men," he told *Radio Retailing*. "We don't sell them. We hold trades 30 to 60 days—to see if new set sales will stick—then slick up

the good ones and put them off in a corner. We've never had enough trades to advertise them, as the salesman always works them off on somebody who has little dough."

Freddie Pincer of the Harrison Radio Store at 555 South State St., declares that at least one dealer, to his knowledge, is buying trades. "He pays from \$1.75 to \$2 for them, sells them for from \$3 to \$4. Some are resold to other dealers in the negro and west side districts and are popped into the windows as bargains. A slick looking cabinet is the main requirement."

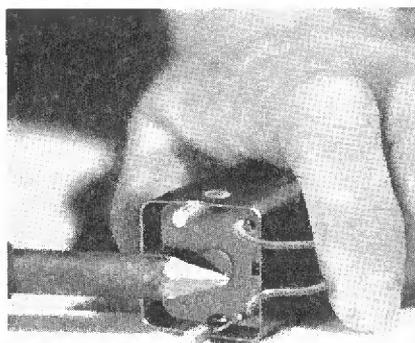
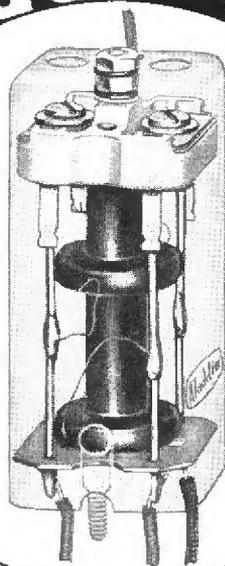
Marshall Field & Company has large numbers of trade-ins coming in all the time, but those that are good enough to sell are usually repaired and sold to the large body of employes, A. O. Casey, head of the retail department, declares. "Inquiries come in constantly for these old radios," he said. "The market seems to be in centers from 200 to 300 miles from Chicago. For a while there was a trucker who took back from six to eight old sets on his empty truck each week to somewhere up in Wisconsin."

E. Dumke, 1618 Howard Street, Chicago, a dealer in a silk stocking district, is clearing his floor regularly by selling his trade-ins. "I can't give you the fellow's name, for there would be a lot of dealers unloading on him if I did. I get from \$1.50 to \$5 per set, and about \$100 worth is taken away each time. Some are torn down for parts, some are very good buys. There is a long profit in this type of merchandise, and a second-hand dealer can easily stretch a \$100 shipment into \$1,000 in sales."

Superior Radio Performance

starts in the factory
which specifies ALADDIN
Polyiron Core Coils for
auto and home receivers

Type "C"



Genuine ALADDIN Polyiron will not melt, crumble, or oxidize when subjected to the hot soldering iron test shown above. It is a thoroughly stable magnetic material. ALADDIN Polyiron products are characterized by accurate engineering and quality manufacturing. These devices are manufactured under one or more of the following U. S. Letters Patents: 1887380, 1978599, 1982690, 1940228, 1978600, 1997453, 1978568, 1982689, 2005203, 2002500, 2018626. Other patents pending in U. S. A. and foreign countries.

Greater Selectivity and Optional High Fidelity for Home Radios

The advantage of Polyiron in the cores of ALADDIN coils for r-f and i-f transformers is due to the magnetic properties of Polyiron. Less wire and lower resistance are notable differences in ALADDIN Polyiron products.

Band expansion for high fidelity reception is obtained through overcoupling. Special ALADDIN coils are made for this purpose, by which band widths of 10, 15, or 20 kilocycles are optional.

Receivers using ALADDIN coils have substantially greater selectivity and sensitivity for a given number of tubes than receivers using air core coils.

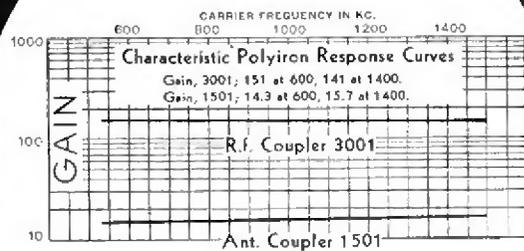
Let us send you, free, some important facts and technical information for your Service Department at no obligation. **WRITE TODAY!**

ALADDIN Polyiron core transformers are the most important development in modern radio.

Aladdin Radio Industries, Inc.
466 West Superior Street, Chicago, Illinois
Licencee of Johnson Laboratories, Inc.

Increased Radio Sales

start when radio dealers offer
ALADDIN Polyiron
 Performance
 in place of ordinary reception



Uniform, high gain in r-f Polyiron core coils assures maximum sensitivity for radios in turret top cars.

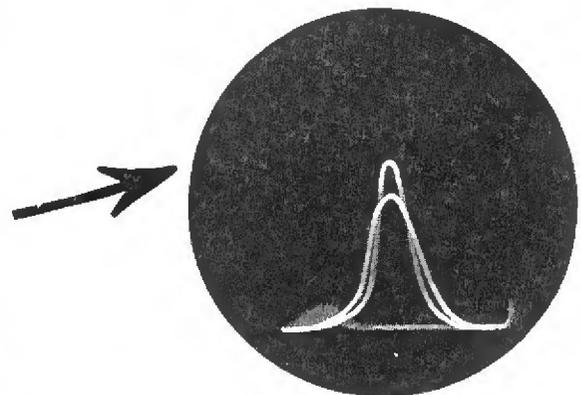
Increased Sensitivity and Compact Size for Auto Radios

Modern turret top cars with an aerial counterpoise under the chassis require extreme sensitivity for distant reception. This is obtainable with an ALADDIN Polyiron core antenna coupler followed by compact ALADDIN Midget Type "C" i-f Polyiron core transformers. From 30 to 50% saving in space is secured through the use of these components in conjunction with metal tubes.

Compare an ALADDIN Polyiron transformer's exceptional performance on any oscilloscope with present air core transformers.

The higher curves in the illustration show the advantage in gain and selectivity offered by type "C" transformers over air core coils in larger shields.

If the radio you are now selling does not use ALADDIN Polyiron transformers, ask your supplier to provide you with a set factory equipped and judge for yourself!



Manufacturers, give your men a chance to increase their sales! Accurate and progressive engineering together with quality manufacturing characterize ALADDIN Polyiron products which merit a trial in your receivers. What if they do cost 10 to 50c more per transformer—they are worth it from a performance as well as sales standpoint. **INVESTIGATE TODAY!**

Aladdin Radio Industries, Inc.
 466 West Superior Street, Chicago, Illinois
 Licencee of Johnson Laboratories, Inc.



AL BELL of Mace-Ryer He never cold-canvasses

KANSAS CITY—Winner of a national competition, "high-man" locally, Al Bell, of Mace-Ryer, takes his place in the front rank of retail salesmen, averaged \$90 weekly in commissions throughout the depression. Selling since 1928, Bell has personally placed 4,000 radios in his territory, following up in many cases with electric refrigerators, washers and other appliances.

Interviewed by *Radio Retailing*, Bell attributes his record primarily to his willingness to demonstrate from 6 p.m. to 11 p.m. weekdays and any time on Sundays. Sunday, when people are home, is his best day. Leads are obtained from old customers and from inexpensive classified newspaper ads paid for out of his own pocket. (One is reproduced on this page.) He advertises "radio rentals," converts inquiries into new set sales by stressing the slight difference between a 75 cent weekly rental charge and his firm's \$1 per week sales plan. Sunday specials listing bargains for demonstration on this day only pull especially well. Bell pays a telephone answering service (Nurses Registry) a flat sum of \$1.50 weekly to relay such calls immediately to his home. A set of inexpensive dishes or some similar pre-

TOMAY Only—1936 Zenith copsole, \$69.95; \$1.25 down, \$1.25 week, police, ship, amateurs, foreign countries; Zenith all-wave table model, \$39.95; 1936 Philco, \$20; 1936 Grunow, \$39.95; \$1 down, \$1 week. Demonstration days, nights, VI, 9340.

CLASSIFIED AD It pulled 14 inquiries, sold 9 sets

Star Appliance Salesman Earns \$90 Weekly

Does his own advertising, owns a truck, demonstrates evenings and Sundays

mium is sometimes offered to Sunday buyers.

This salesman owns his own coach-body truck, takes a variety of merchandise along with him for demonstration. The store, one might say, is no farther away than the curb in front of the customer's home. The truck accommodates about 15 radio models, practically the entire Mace-Ryer line. So complete is the selection that it is possible to demonstrate several sets if necessary before leaving. Receivers are, therefore, never left in homes on trial.

Bell trades in his truck regularly every 18 months, eliminating engine trouble, tire failure and other delays that cost him valuable selling time. He thinks this is true economy, and cheaper in the long run.

Two callbacks after a sale is his inflexible rule. This keeps customers satisfied and also enables him to sell additional merchandise. Customers are informed that Bell works on straight commission. He finds them more ready to "donate" leads for new business than they would be if he was a salaried worker. This, he tells us, is not theory. He has proven it. A gift of some kind valued at about \$2 retail is given to cus-

tomers who forward leads later resulting in business. The store itself adds \$2 in cash.

Telephone canvassing has been tried. This salesman leaves no stone unturned in his search for new business. But it has not been found profitable. He prefers to spend free time calling back on old customers, contends that this produces more sales. Directly quoting him: "In my opinion, the cold-canvass method of selling radios is a thing of the past. Even if leads are produced in sufficient number to justify the time required to develop them, our credit department usually turns the prospects down."

Checking over the high-spots of our interview we immediately reach the conclusion that much of the credit for Bell's success must be given to his employer. For Bell, except for the fact that he does not buy and finance merchandise, is practically in his own business, developing his own prospects, maintaining his own truck, doing his own advertising and calling back on a close circle of customers to sell additional equipment.

Only near-perfect relations between store and salesman permit such a relationship.

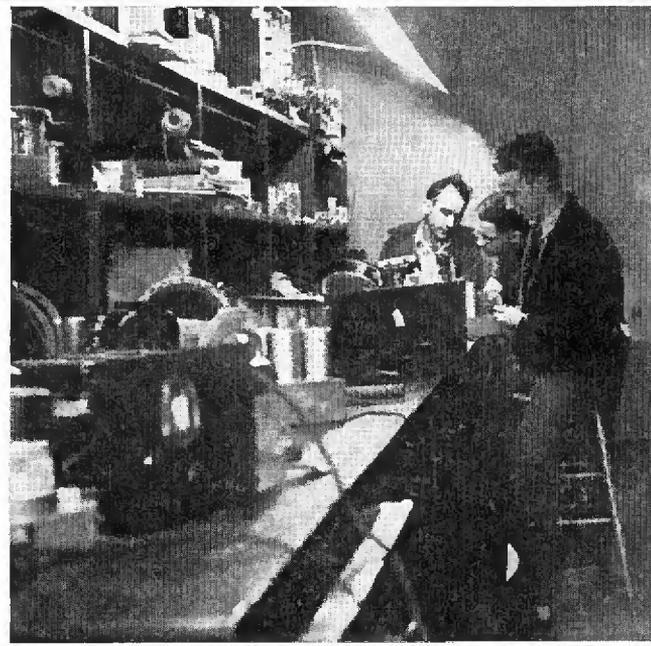
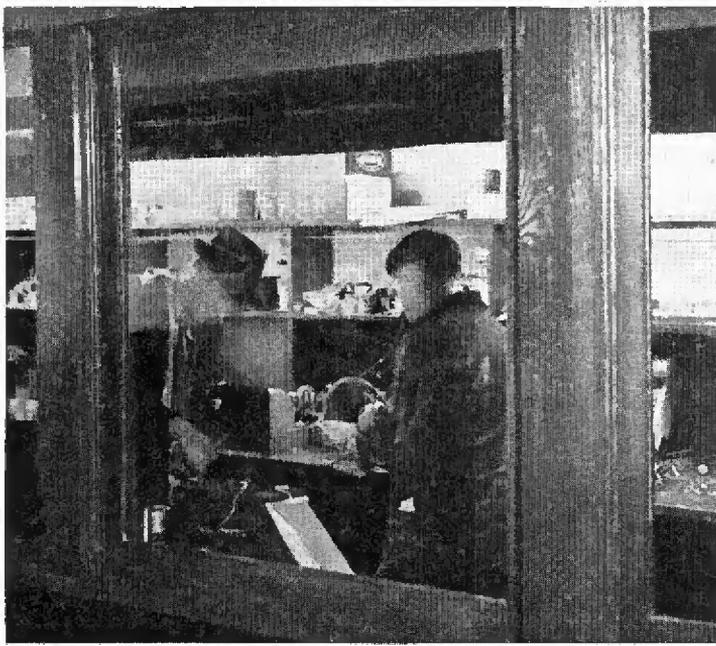
Visible Shop Makes Good Window

Repair bench seen from street through glass swells traffic, improves light

BIRMINGHAM — Chain drugstores have increased prescription business by installing these lucrative departments up front. Popular restaurants create confidence in their foods by cooking right in the window. And Dick Thomas of the Radio Service Company has boosted service business, increased efficiency of his repairmen by following suit, moving his repair shop forward.

At a cost of \$100 for materials (servicemen did most of the actual work in spare time) Thomas shifted his repair department from a dark back corner of his store to the front, installed windows through which people passing on the street might watch. Result: Increased store traffic and better service work.

To prevent customers from talking to workers the window-shop was parti-



OUTSIDE This is what customers see

INSIDE Servicemen work in a closed-off room

tioned off from the rest of the store. The attention of the men is not distracted by traffic, according to this dealer, who says that the novelty of watching people and cars go by wears off rapidly and the men soon ignore it completely.

When it is necessary for a customer to talk to a repairman about a set, the

repairman is right up front. No longer is it necessary for the customer to walk to the back into a dark, scarcely impressive corner of the store nor for the serviceman to be called from this remote point.

"The position of the shop is now my best advertisement," says Thomas, who sends in the photos reproduced above.

8-Day Sale Moves 165 Trades

"Sets free if you buy the tubes" used as bait

DENVER—Le Moines, local outlet, staged an eight-day sale of used radios last month, which was sufficiently successful to warrant reporting nationally the methods used. One hundred and sixty-five trade-ins were cleared out during the drive.

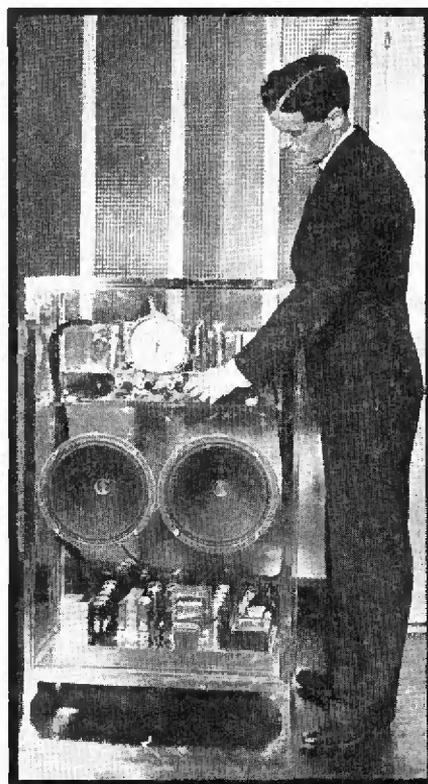
One advertising stunt to which much of the interest in the drive is attributed was the offer of 10 used sets free if purchasers would buy the tubes at Le Moines. Other receivers were offered at prices calculated to bring in business without jeopardizing profit and some brought as much as \$47.50.

Radios advertised were plainly marked with price-tags. All were guaranteed for 30 days against mechanical or electrical defects. Special finance rules were laid down for the drive. A payment as low as 50 cents would hold any set, 50 cents additional permit delivery where

consumer credit was established. All sets under \$10 went for cash or were subject to the concern's regular lay-away plan. In this case no carrying charge was added to the price.

All used sets were divided into two classes, those under three years old and refinished and those older and sold "as is" except for mechanical checking. Refinishing cost the firm an average of \$2 per set requiring it.

"Some of our competitors thought we were hurting the sale of our new sets by putting out so much used merchandise," says Everett Harding. "We found that the sale actually increased our new set business by bringing in prospects. We further estimate that each person who came to the store actually intending to buy, paid twice as much for a receiver as he had originally intended to spend."



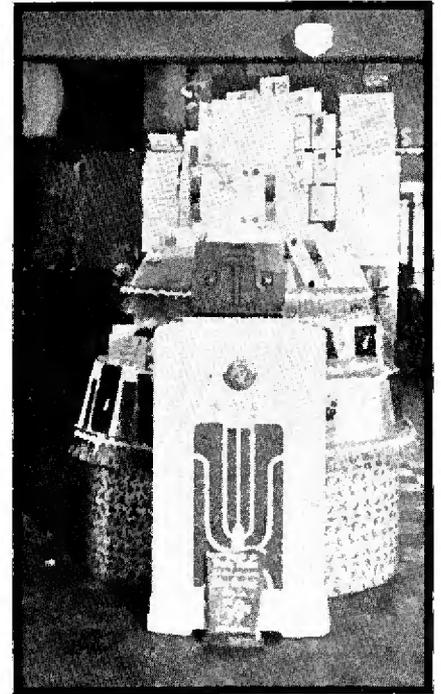
GLASS CABINET STOPS 'EM

A twin-speaker receiver, removed from its original cabinet and installed in one made of plate glass held by welded, chromium-plated steel posts, makes a good display for Wholesale Radio, New York



COMPACT YET HANDY Table models are up off the floor

DRUGSTORE AD Console and midget displayed in adjoining shop are seen by 400 people daily



Solves Midget Display Space Problem

Wall-rack accommodates 100 sets, permits rapid choice of table models by customer

KENOSHA—Pigeonhole type wall-racks for the display of midget receivers are known to most big-city dealers but many retailers in smaller towns have not seen these effective and space-saving displays.

The rack used by Zabel-Martin is a good example. According to Martin, it not only conserves floor space and permits rapid selection by the consumer but also tends to create the impression, by grouping many small sets closely together, that the store considers them

rather unimportant "package merchandise." This paves the way for sell-up work in behalf of the larger consoles.

In order to dramatize consoles, to make them stand out by comparison with the grouped midgets, each console is placed on a raised platform. The extra consideration given better sets by the store is at once obvious to many people originally interested in table models and this puts them in the correct frame of mind to listen to a console sales talk without balking.

Cultivates Care-takers for Sales

Finds chauffeurs also know needs of rich

GENEVA, WIS.—Bob Leonard, of Lake Geneva Radio Service, informs *Radio Retailing's* correspondent that it pays to make the acquaintance of caretakers on the big resort homes in his territory. In most instances, says Bob, these caretakers are entrusted with the care of all appliances and the owner depends upon them to see that equipment is kept in repair. Regular contact of such men nets business. For when a new radio or electrical appliance is needed the caretaker's recommendation carries much weight.

Chauffeurs employed by rich people are also worth cultivating, we are further told. They, like the caretakers, frequently know when new equipment is needed. Leonard contacts them regularly, without spending time or money specifically to do so, by calling when in their neighborhood on other business.

DX Confirmation Ads Sell Shortwaves

Sales jumped 25 per cent following appearance of letters from customers

TUCSON—The best small-space ads used by Tidmarsh Engineering, of this city, in the past five years, according to M. D. Schuster, are reproductions of letters from all wave set buyers telling the firm what distant stations they receive.

Schuster simply prints letter after

letter in the newspaper, giving the user's name, address and trademark of the set purchased. Sales of allwave equipment have increased 25 per cent as a direct result.

"Our small-space ads have made the whole town DX conscious all over again," says this dealer.

THE INTERNATIONAL RADIO



Announces KADETTE

MODERN TO THE MINUTE



A New
Powerful
All World
7 Tube
Long and
Short Wave
SUPER

At only \$ 26⁹⁵

A real radio thoroughbred that brings an instant consciousness of charming originality . . . the clean flowing beauty and smartness of all things new and modern are superbly reflected in this exquisitely fashioned model.

The cabinet, in striking new design, is of beautiful sliced American walnut with wide band inlay of genuine Burl walnut. Highly polished knobs and base are in gleaming black ebony finish.

Has two distinct tuning bands, 550 to 1600 Kilocycles and 5.5 to 15.5 Megacycles covering complete Standard Broadcast, Foreign and Domestic Short Wave. Sharply selective with full, rich thrilling tone. Has extra large convex crystal enclosed and illuminated airplane dial with vernier drive and powerful Electro-Dynamic speaker. Dial face is particularly attractive with calibrations for short wave lighted in neon green and regular broadcast in white lighted reverse figures.

Size 12½" high, 11¼" wide and 6¼" deep. Weight 10 lbs.

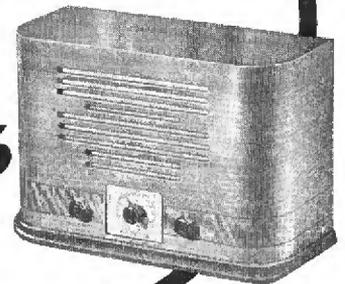
And
still breaking
all sales records

"RADIO'S FINEST VALUE"

6 TUBE AC-DC
SUPERHETERODYNE

TUNES
ALL POLICE . . . AIRPLANE
AMATEUR . . . STANDARD BROADCAST

\$ 19⁹⁵



KADETTE
Sixty Six

Dealers - Distributors . . . Write for open territory.

THE INTERNATIONAL RADIO CORPORATION, Ann Arbor, Michigan

Wholesaler

gives rules for

Efficient Parts Distribution

ELMIRA—One and one-half years ago Fred C. Harrison, then operating a retail service shop, decided to distribute replacement parts. With Harold F. Jenkins at the helm as salesmanager, this concern has since built up a following over a 200-mile radius, now boasts 400 active accounts.

Rapid growth is attributed primarily to anticipation of the serviceman's needs and seasonal stock expansion in advance of retail orders. Throughout its years of repairing for the local consumer, Harrison's kept a careful record of fluctuation in standard component demand, utilized this record to set up stock when entering the jobbing business.

The charts on the opposite page show how purchases of four important replacement parts vary from month to month. Demand is shown over a three-year period and a composite curve of all three years indicates still more clearly the average month-by-month requirements. Purchasing may vary with location, of course, but Elmira is considered a fairly typical city hence this original data prepared exclusively for *Radio Retailing* will be useful to retail servicemen and parts distributors alike.

While demand for all four parts graphed appears to reach its maximum in either October or November, electrolytic condenser stocks obviously must be strengthened as July approaches, resistors begin climbing three months earlier, in April, volume control requirements start up the scale in June and vibrators reach a peak in May, holding relatively level until cold weather sets in late in the fall.

The sharp rise in October, 1935, vibrator sales was due, in this particular case, to opening up of a new retail account in a university town where students swell business as they return to school and the 1934 curve is therefore considered

Considers charting of serviceman's seasonal requirements, "timed" calls by salesmen and inflexible one-hour shipment policy most important elements



Salesmanager

HAROLD F. JENKINS

serves 400 shops in a 200-mile radius

a more accurate norm. Similar allowance should be made for the abnormal jump in electrolytic sales during August, 1935. Elmira was in the heart of upstate New York's serious flood and moisture as well as actual water-damage caused many premature capacitor deaths.

Second in importance only to stock control, according to this wholesaler, is regularity of salesmen's calls on all accounts. Men are required to contact each account once every three weeks, arranging their schedules so that these calls may be made on the same date each month and, if possible, at the same hour.

This allows shops to estimate their needs in advance and depend upon salesmen showing up on schedule. It further encourages customers to resume regular purchasing, with obvious advantages to both the retailer and the wholesaler over the depression practice of ordering hand-to-mouth, with its rapid service difficulties. Emergency shipments are, of course, handled, but planned purchasing is encouraged.

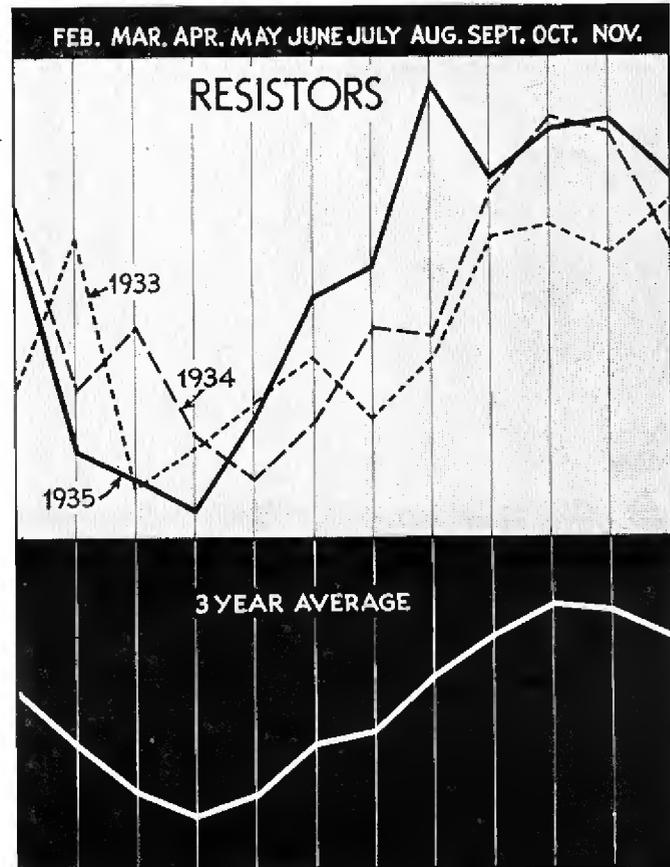
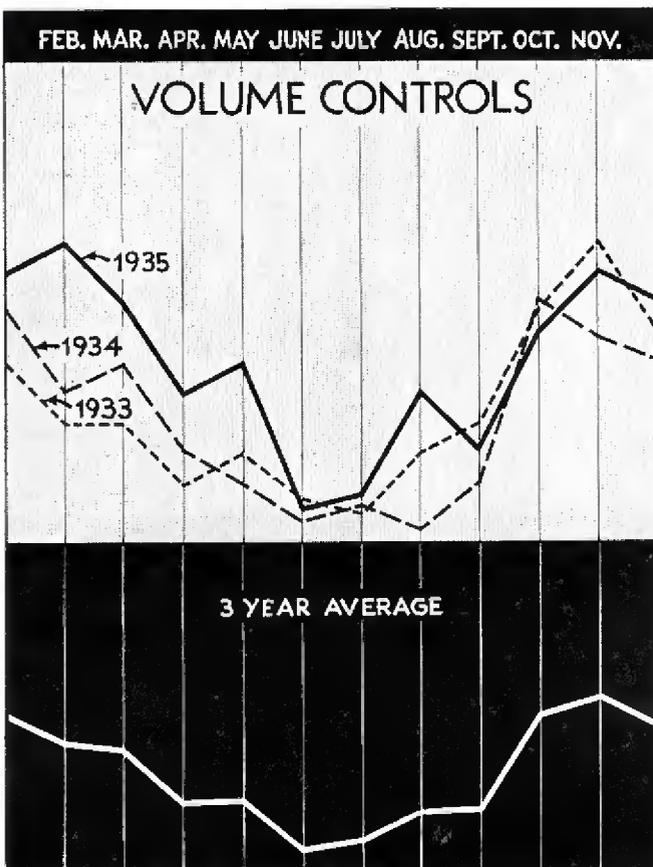
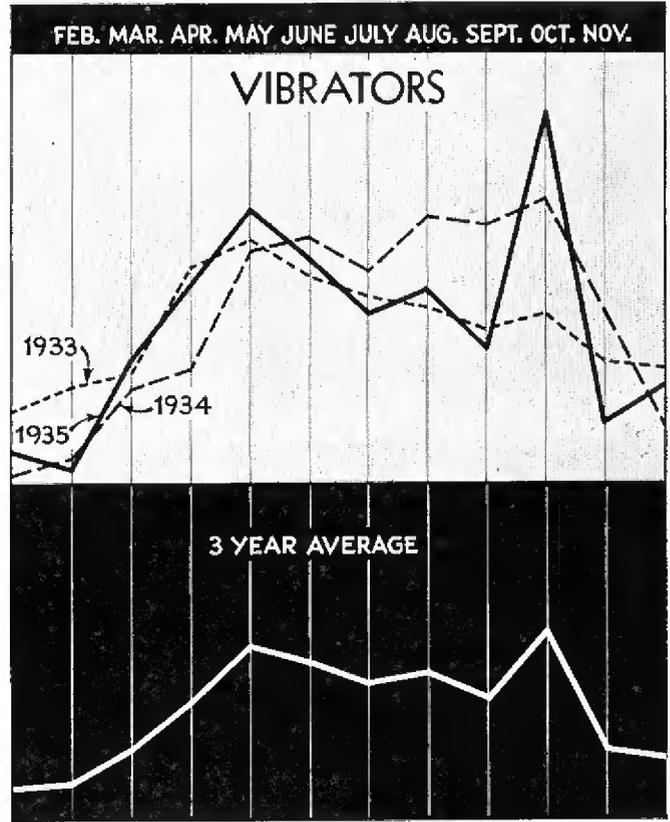
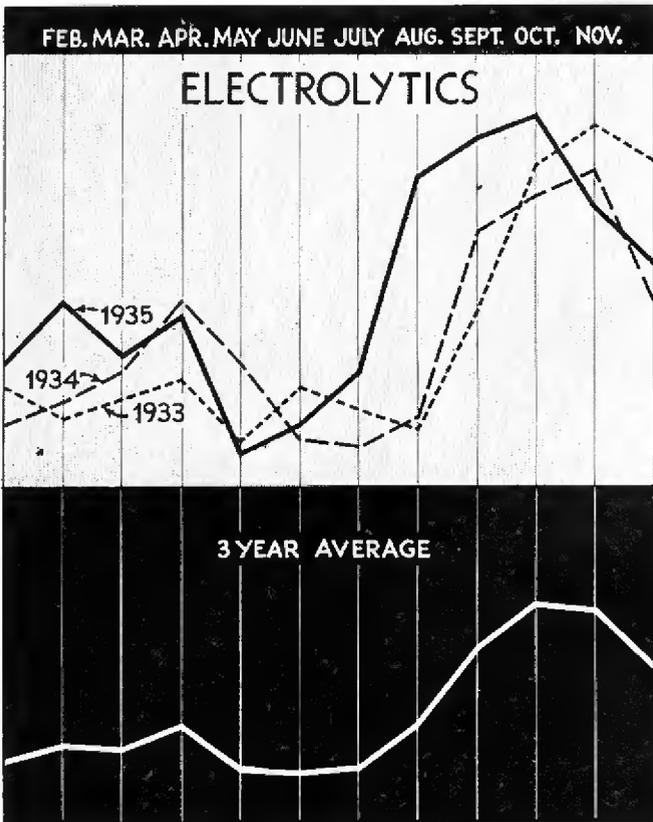
Keeping the business open until midnight brings many long-distance orders at low evening phone rates. The shipping department operates under the inflexible rule that all orders for parts carried in stock must be filled, packed and on their way within one hour of receipt.

Says Jenkins: "We wholesale only to legitimate servicemen and licensed amateurs. New dealers must give references from others known to us, or show membership in some service organization or trade school. Business cards or letterheads are not considered good credentials. The local chapter of the IRSM has helped us greatly in preventing the sale of merchandise to parties not entitled to discounts by periodically checking our wholesale listings.

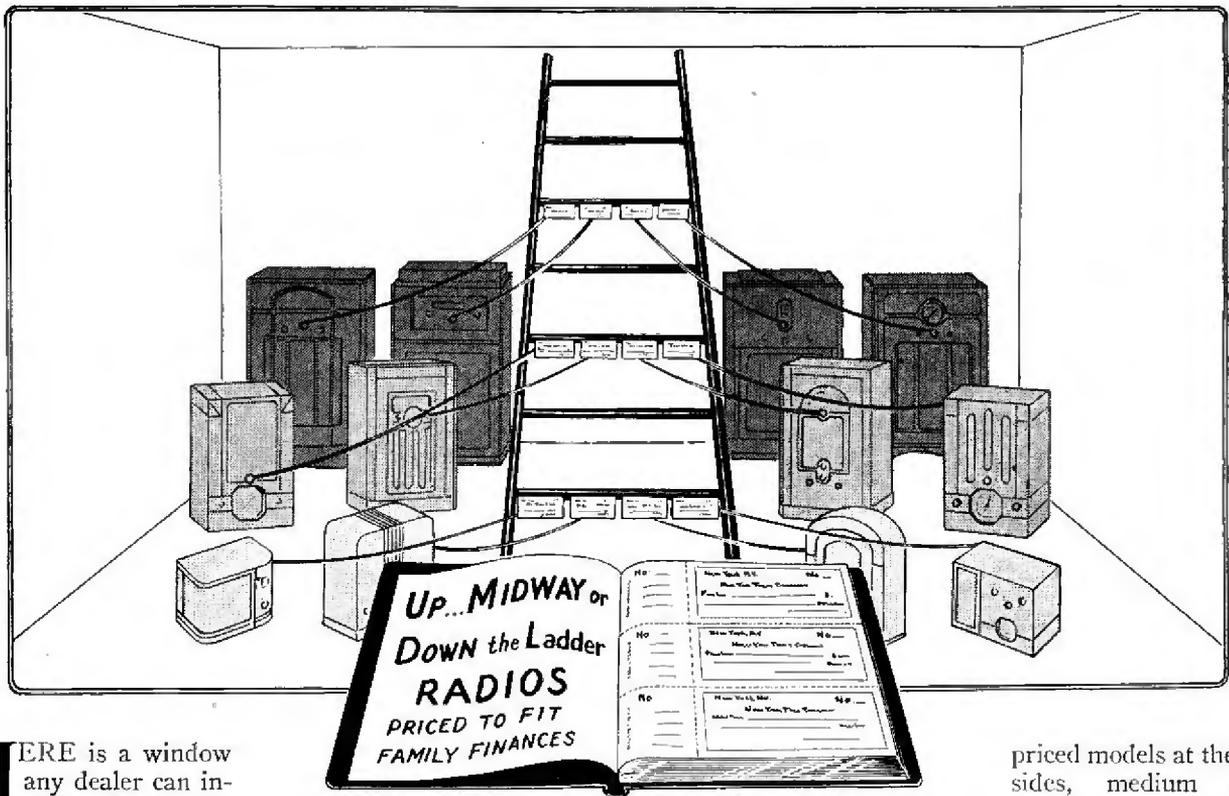
"We believe that in protecting those seriously engaged in earning a living by radio servicing we are building a more solid foundation for future business."

Retail Repair Component Demand

Prepared from the records of FRED C. HARRISON, Elmira, N. Y.



WINDOW any Dealer Can Install



HERE is a window any dealer can install. Its principal "prop" is an ordinary ladder and its chief virtue the fact that it appeals to lowbrow, highbrow and middleman all in one crack. For the window is of neither the "trading-up" or the "trading-down" type. It is neutral on price, gives the facts about sets in the various price classes, dramatizes as far as inexpensive visualization will permit.

The display is intended to be the opening wedge for a demonstration inside the store, for tone and other comparisons. No window display alone ever sold a radio. But this one will stop them, bring many in.

LAYOUT Highlight is an ordinary ladder. This is placed at the physical center of the trim, slanted so that it extends from below the front glass to the upper background. Against the lowest rung station the largest checkbook your bank can supply. Fold back the outside cover and on the exposed open pages (three checks deep) boldly print the following words: "Up, Midway or Down the Ladder—Radios Priced to Fit Family Finances."

Skip every three or four steps up the ladder and at evenly spaced rungs thumbtack a single row of personal checks, each made out for an amount which will tally with advertised models in each particular price range. I suggest three ladder-rungs working for you, high first, midway next and low last of all, extending from the top to the bottom of the ladder in this order.

From each row of checks run stock ticker tape to the correspondingly priced radios on display. Group the low

Ladder is principal "prop." Sells lowbrow, highbrow and middleman

By Ernest A. Dench

priced models at the front sides, medium priced range at the center sides and the more elaborate models at the rear sides. See that each set has its own individual price tag, a personal check made out for the correct amount.

VARIATION If terms are to be featured retain the ladder in the same

position, but amend the check book announcement to read: "Up, Midway or Down the Ladder—Radios Sold On Terms to Fit Family Finances."

At positions three or four rungs apart place a sheaf or fan-spread of personal checks, each made out for the exact amount of the required monthly installment. The number of checks will be regulated by the amount of each monthly installment. Use ticker tape as before. Restrict model presentation to one each of the three price ranges.

SPACE This layout will be most effective in a long but not necessarily deep window. If two windows are available duplicate the ladder theme in each. In one display low-priced radios and in the other place medium-priced models. Place one or more high-priced models with the medium-price display. The check book announcement in each window should carry this additional sentence: "See Companion Window For Continuation of Price Range."

No display layout planned for all types of radio retailers can be worked out to the last detail. Here are the basic ideas—embroider to suit your own specific needs. But by all means see that the ladder's lower end rests against the front window and that its top slants back toward the top rear. This creates an illusion of depth.

The Inside on

Here's the Dirt

Perhaps You Can Sweep It Under the Rug . . .

By

Milton Samuels

THEY'RE at it again! I mean those merchandising magicians who gaze into the crystal ball each year and conjure up figures, graphs and charts proving (so they say) that outside selling is the complete answer to a maiden's prayer . . . neglecting to mention that it can also knock an inexperienced retailer's pocketbook for a loop and generally does.

Certain are two things. Some dealers apparently *never* learn how to handle a crew, a fine art requiring control of men working on their own most of the time. And even those dealers possessing the necessary insight into the complicated workings of a pavement-pounder's mind flop unless they are wise to the major pitfalls.

Entering upon a plan of outside solicitation the retailer is confronted by these difficult problems:

1. Correct selection, training and control of personnel.
2. Holding down the trade-in allowance.
3. Minimizing of free-home demonstration periods.
4. Avoidance of poor credit risks.
5. Price maintenance when soliciting business.

All but the first are common to store selling as well as outside selling but control is much more important when working in the field because outside selling is *forced* selling. The cost of mistakes can and will be much more severe when it is necessary to beard the lion in his own den rather than in the store, where he comes only when more or less intending to buy.

There *are* good men in the outside selling game but they are about as scarce as hens' teeth. For every good man there are at least ten "clucks" who have failed in salaried positions requiring them to do a job every

day under close observation of a superior. Such men are generally long-winded, fast-talking individuals who at every opportunity boast about their sensational sales record while with Buller Brushes or Blub Aluminum. As a general rule they seem primarily interested in securing a drawing account against commission and can be identified by their yearning for cash in advance. If no drawing account is forthcoming they lose interest in a job with surprising rapidity.

The furnishing of "live leads" is part of every outside selling campaign and to obtain them dealers insert coupons in newspaper ads, compile a list of people who come into the store, add the names of people buying service and shake well. These names are then placed in the hands of the outside crew, classified by neighborhoods, and the fun begins. For it is to the advantage of every outside salesman to make live leads into hot prospects. The longer a live lead can be kept looking hot the longer the opportunity of maintaining a drawing account continues. So frequently men exaggerate (to put it mildly) the attitude of the prospect toward the firm, its merchandise and the salesman's pleasing personality in particular.

Here are four actual reports:

- First Report:** Interviewed Mr. J. . . . and interested him in B radio. Arranged for free demo. Sure sale.
- Second Report:** Exchange radio. Arrived defective. It's a shame that a radio should be delivered in such poor condition. Almost cost me sale.
- Third Report:** Ready to close deal. Demands \$75 trade for his old W set. Offered him \$25, but think he'll accept \$35. See him tomorrow.
- Fourth Report:** Customer demands \$50. Will try to convert sale into cash.

. . . and so on day after day until the salesman has run out of excuses and the prospect is definitely marked "deceased." The tombstone, may we point out, has been pretty expensive.

Statisticians can readily produce charts by the wastebasketful to show that almost all radio prospects are ready, nay *anxious*, to trade-in their old sets for new models. But they neglect to mention that most people demand more for their old equipment, even if it has zero re-sale value, than the margin on a new receiver will stand. Every outside salesman will testify that nine out of ten prospects point with pride to their ancient and awful old set, contending that "none of the new sets can beat my old Zilch Special for tone quality." In reality the thing should probably be abolished by law.

THE free home demonstration angle will give the average inexperienced dealer plenty of trouble. And you can even cross out the word "inexperienced." There is no limit to the promises made by many outside salesmen in their effort to close sales and if the dealer does not

Outside Selling

watch his step he will quickly find himself with a whale of a *floating inventory*. Not only is this dangerous financially, tying up money in stock, but it gives overhead inflammatory rheumatism.

The cost of delivery, installation, pickup and damage due to handling generally swamps out profits unless the salesmen turn in plenty of business and hold free demos down to the absolute minimum. I know one dealer who adventured into the great unknown and quickly found himself with 100 sets in the field. Fourteen of them were sold. Try and make money on this percentage!

Credit risks are nothing to write home about. I doubt if any experienced salesmanager will challenge my statement when I say that names turned in by the average outside crew constitute a pretty good list, as a rule, of people whom the firm ought *not* to sell. Outside men are rarely if ever over-conscientious when submitting credit information. Guarantees and concessions are frequently inserted in contracts without the credit manager's knowledge. This is done by the simple but questionable process of omitting just a few short words on the duplicate. Trouble inevitably develops before the final payment is made and then it is too late . . . the salesman has already departed for greener fields with the commission.

Friction between inside and outside sales forces is not uncommon and is a troublesome feature of any high-pressure business. Inside men almost invariably attempt to secure full credit for prospects attracted to the store by the work of outside men. They will also frequently refrain from handing in the names of shoppers who enter the store but do not buy, intending to make the outside follow-up call themselves and depriving the outside men of needed leads. Days later, if the sale is not closed, it is turned over to the outside crew—too late for Herpicide.

It is not uncommon to find a store manager who encourages such tactics, if he secures a commission just on store business. Diogenes, looking for an honest man with a lantern, could scarcely find one with an anti-aircraft searchlight in the ranks of many outside-selling crews.

THESSE are the trouble-spots for men contemplating selling outside the store by the usual crew methods. It takes a smart man to avoid them and the average inexperienced dealer can't make the grade. But it *has* been done. If any set of rules could be laid down to avoid unpleasant experiences in the search for volume out in the cold, cruel world I would select these as the highspots:

1. Start small. Go after profitable business rather than volume.
2. Arrange to have outside salesmen spend a portion of their time on the floor so that they will be encouraged



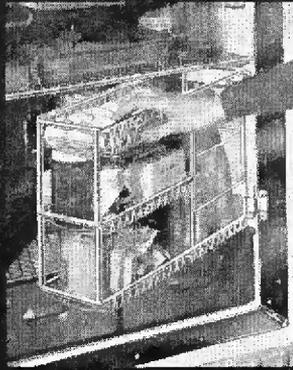
Milton Samuels

to arrange store demonstrations in place of home demonstrations.

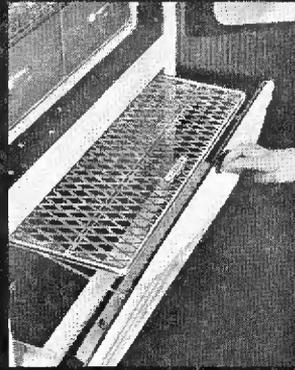
3. Limit the number of sets allowed on free home demonstration. Don't allow any set to remain in a home more than 48 hours unless a down-payment has been made. Allow the customer an exchange privilege within 30 days but *no* refunds.
4. Do not allow outside men to deliver accepted contracts. Mail them with a letter of confirmation, plainly stating all terms.
5. Furnish outside men with every possible sales aid. If you feature a special in the store give them an opportunity to feature it also.
6. Don't imagine that most people know your store. Advertise to help the outside men.
7. Instruct salesmen never to leave a prospect's home without leaving some reminder of the visit.
8. Do not let any salesman retain the name of a prospect longer than ten days. Establish an interchange-of-names system between men.
9. Treat outside men with the same consideration as inside men.
10. Avoid mass pep talks as a means of stimulating a crew. Work with the men individually.

—And don't blame me if your first venture into Never-Never Land removes some of the pigment from your hair. Outside selling produces volume but even experts frequently stub their toes.

NO REFRIGERATOR EVER OFFERED HOUSEWIVES *So Much* BEFORE!



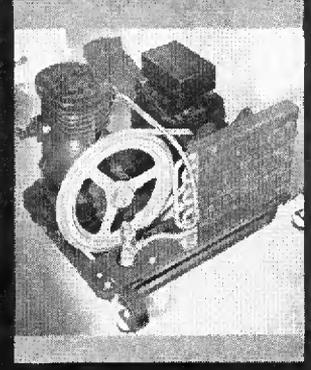
SAV-A-STEP—on its own hinges or snapped onto refrigerator door—turns back shelf space to front space



SLID-A-TRAY slides out at a touch—holds almost a shelf-full of food at once—frees hands for rearranging



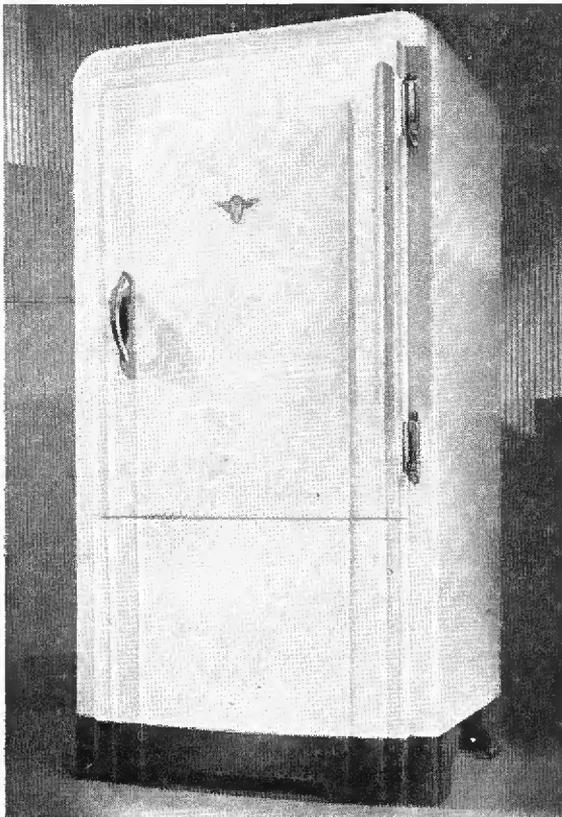
First illuminated airplane-dial cold control features this new evaporator with its extra-large ice capacity



Famous Stewart-Warner Slo-Cycle twin-cylinder compressor gives record economy and service freedom

1/3 MORE "Front" Shelf Space—New and Provable Current Economy—Utterly New Convenience—All Make STEWART-WARNER

Your Best Bet for 1936



Amazing SAV-A-STEP, SLID-A-TRAY and many other new hits give you what it takes to OUT-DEMONSTRATE and OUTSELL your competition—AT A PROFIT!

● The biggest "edge" over competition you'll see this season is yours with these beautiful new Stewart-Warners! From top to bottom, they're built to make plenty of sense to your prospects—and therefore make sales and profits for you.

They have eye appeal galore. They're the handiest, roomiest refrigerators ever built. With SAV-A-STEP, SLID-A-TRAY, TILT-A-SHELF and other improvements, the housewife can arrange foods to suit herself—and still have everything at her fingertips. Because there's actually 30% more "front"

shelf space in these Stewart-Warners.

Best of all, your profits *stick!* The famous Slo-Cycle twin-cylinder compressor has amazed Stewart-Warner dealers with its exceptional freedom from service losses—and turned owners into boosters by its extreme economy, quietness and ample reserve cooling capacity.

There's amazingly good news for you in every word of the Stewart-Warner story. Hear it all without obligation before you go into your big season. Phone or wire your Stewart-Warner distributor now.

STEWART-WARNER CORPORATION, 1828 Eiversey Parkway, Chicago

**STEWART
WARNER**

3 Conventions . . . No Boats

Candid Camera clicks ashore at Radio and Refrigeration unveilings

RCA-Victor . . . at ATLANTIC CITY



THE WALK IN BOARDWALK . . . Wyatt and Godsey, of Richmond Crump Co., and Card, of Paul's, from Norfolk in Ole Virginie



JUST PASSING BY . . . Glazer of Bostons Store, Ansonia, Conn., Hanson of Heims, Danbury, Conn., and Yurt, Supreme Radio, Brighton, Mass.

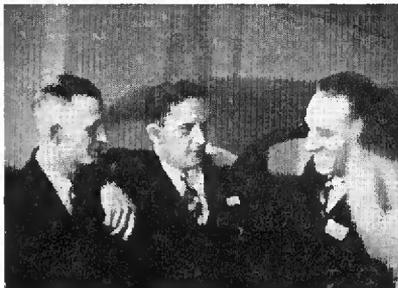


PLUTOCRATS AT PLAY . . . Wirtz, assistant convention manager (left), Savantes of Haynes-Griffin, N. Y. and Huntington of The Corporation



ONE MAN ON A HORSE . . . Erb, of Erb Supply, Woodcliff, N. J., rides the beach on a hired nag between convention sessions

Stewart-Warner . . . at CHICAGO



MERRYMAKERS FROM MEMPHIS . . . Saunders, Wilson and Cook of Wilson's compare notes and tell a story after the shouting's o'er



SET FOR A QUICK ONE . . . Schumacher finds two takers in Leven of Tarbell Watters, and Talbor of Talbor-Brooks-Ayer



THE FINGER POINTS . . . Lytle, of Southern Minnesota Supply, Winters and Calcum, of Scranton's Anthracite Sales, compare convention ties



FROM PARIS? (Left right) Dunn, of Engine Souther, district manager, kerts of Advance Appl and Hieb of Des Moir

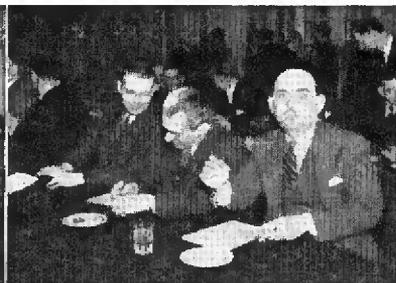
Crosley . . . at CINCINNATI



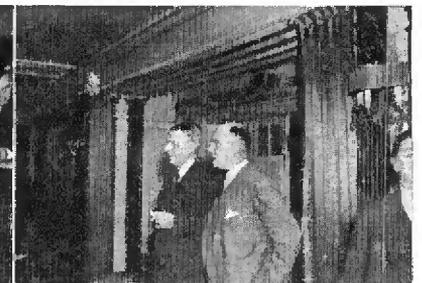
SAD ON WATER . . . Schlitz of Toledo, Balsch, Hamburg of Pittsburgh, Kay and Steining investigate jug containing pale, insipid liquid



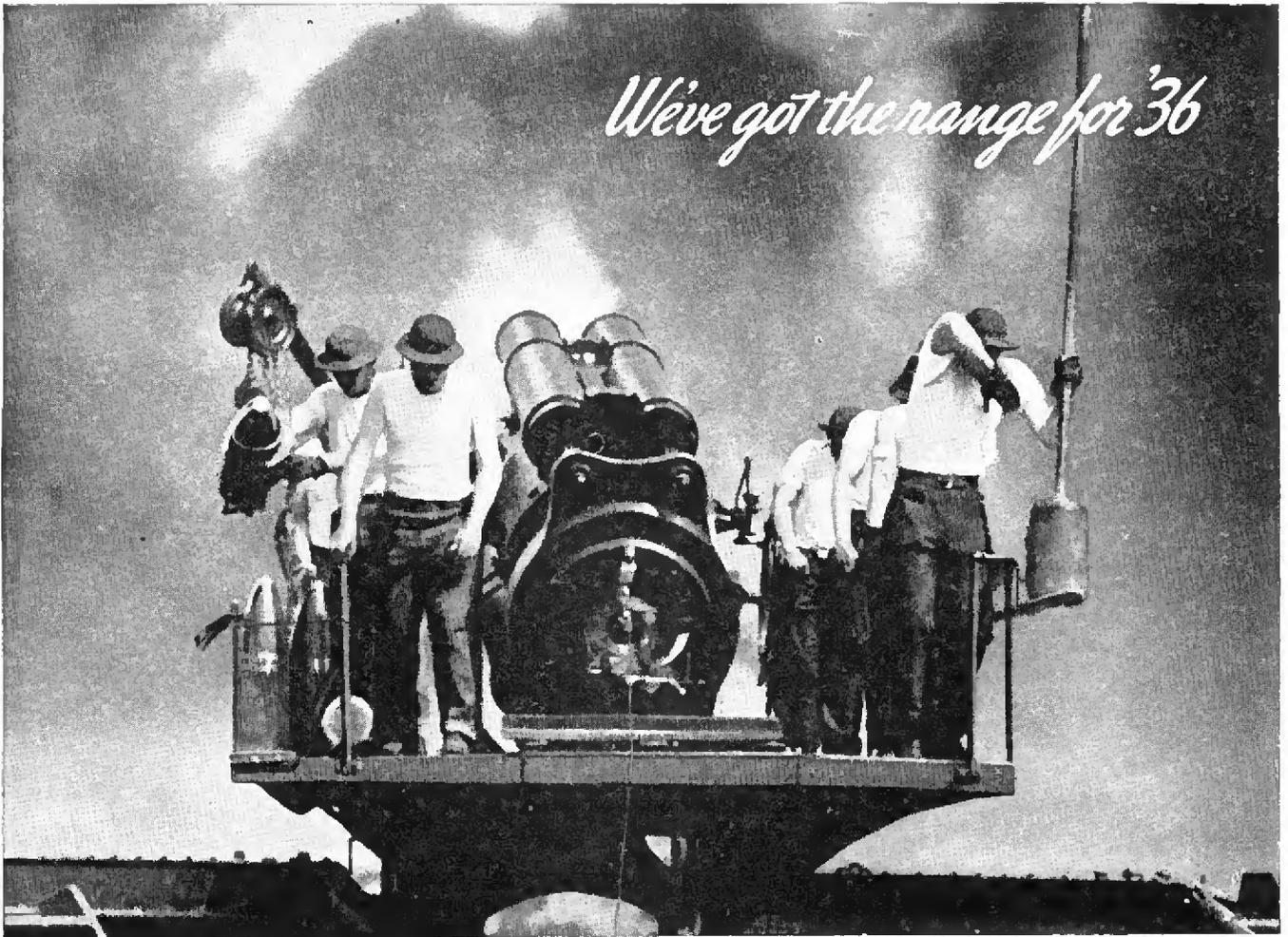
DITZELL MITS DISTRIBUTOR . . . Salesmanager (back to birdie) shakes with Salzman of Wholesale Radio while Erlandson looks on



WHO IS CRIBBING FROM WHO? . . . Kenedy, Stautz and Rubloff of Chicago hark back to school days, look over each other's shoulder



SATISFACTION ON THE SIDELINES . . . Chairman of the Board Knowlson (left) and President Otis watch proceedings from the door



Acme Newspictures, Inc.

OPEN FIRE!

**FRIGIDAIRE GOES INTO ACTION
WITH THE OPENING GUN OF ITS
GIGANTIC CAMPAIGN FOR 1936**



● Frigidaire's field organization, largest in the industry, is on the move toward its most successful selling season in history!

In 38 dramatic conventions now going on from coast to coast, Frigidaire is presenting to its 20,000 dealers and salesmen the sensational Frigidaire for 1936—a product utterly new, stunningly beautiful, crammed full of powerful sales appeal in every respect. New campaign strategies are being introduced—dynamic, forceful new plans for action that overlook nothing to insure your biggest Frigidaire year! The men who have seen these spectacular new products and the powerful, compelling sales program are confident of sweeping victory. They agree that the challenge "You'll do Better with Frigidaire in '36" is no idle boast!... Frigidaire is going into action, and its greatest record-breaking year lies ahead! FRIGIDAIRE CORPORATION, DAYTON, OHIO

You'll do better with Frigidaire in 1936!

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VICTOR RECORDS ROLLING UP NEW TRIUMPHS!

Definitely, this is the time to push your record business

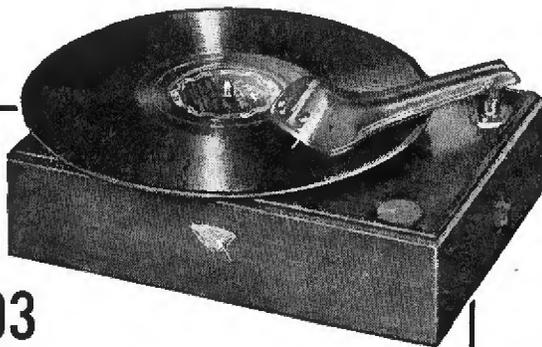
See this amazing fact: — Victor Record sales were larger in January of this year than they were in December of last year! That smashes all precedent, for December heretofore always has been the big record month. January 6th brought Victor Records more orders than any other single day in the past 8 years! That was in spite of the fact that December 30 and 31 were the biggest two consecutive days during the previous 5 years! No matter how you look

at them, those figures prove just one thing: Victor Records are going big. The sales curve is shooting up. It's been rising for nearly three years now.

Dealers who saw the boom coming have been making plenty of money with Victor. There's still no sign of a slackening pace. This is the time to give your record department an extra boost for extra profits. If you haven't a record department, get one, in a hurry. We'll tell you how to get going.



These figures show how sales of Victor Records continue to increase.



The R-93 Mighty Little Record Player

This is selling faster and faster. Every sale means a new record buyer.

Breaking Records with The Broken Record

Victor always has the hits. "The Broken Record" by Guy Lombardo and His Royal Canadians (Victor Record 25210) is breaking all sales figures, rolling up bigger profits to dealers.

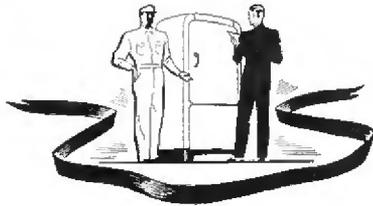


VICTOR RECORDS

ANNOUNCING THE 1936 NORGE...

"The Greatest Norge of All Time"

ROLLATOR REFRIGERATION



Norge has pioneered many of the most important improvements in electric refrigeration. This process of development has been careful, surefooted, and painstaking. Every step has been thoughtfully engineered. Every slightest change has been super-tested—at the factory, in experimental laboratories, in homes.

American housewives expect great things of Norge. They look to Norge to be the first to pioneer new developments of proven merit. But in all pioneering, Norge wants proof—indisputable proof.

Year after year, Norge goes to the women of America for facts—facts which will enable Norge to build the finest possible refrigerator, to best serve the American home. In the light of these facts, the 1936 Norge Rollator Refrigerator was designed, built, offered to the public—the greatest Norge of all time.

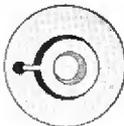
Again, Norge has done the "impossible." The Norge that has been *proved* by every kind of scientific and practical test—the Norge that has been *approved* by hundreds of thousands of enthusiastic users—is now still further *improved*.

The 1936 Norge Rollator Refrigerator, in design, efficiency, convenience features, flexibility of interior arrangement, economy of operation, is by far the *greatest Norge of all time*.

Write for complete and specific information about the new Norge Rollator Refrigerator—or any other of the distinctive Norge home appliances. Learn about the big profit opportunity in "going Norge."

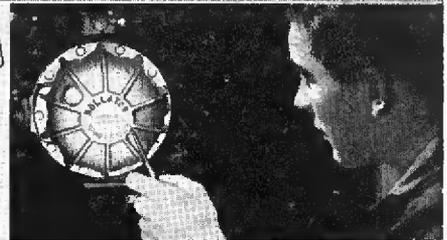
NORGE DIVISION Borg-Warner Corporation
606-670 E. Woodbridge St., Detroit, Michigan

THE ROLLATOR COMPRESSOR... smooth, easy, rolling power, instead of hurried back-and-forth action. Result—more cold for the current used, and a mechanism which is almost everlasting.



PROVED

by every possible factory, laboratory and home test.



APPROVED

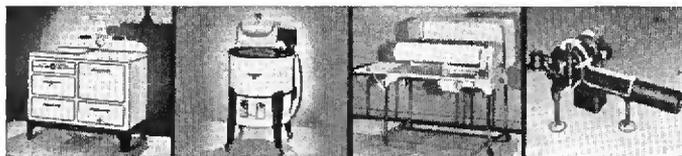
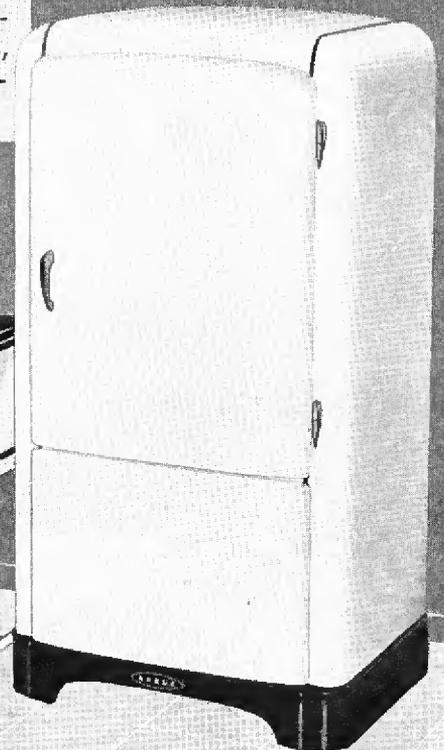
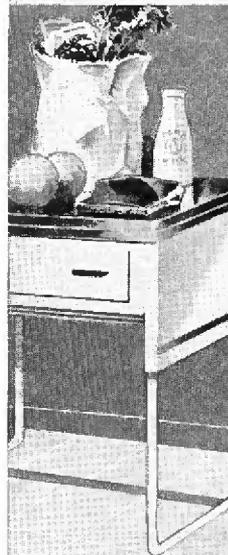
by more than half a million enthusiastic users.



NOW

IMPROVED

in beauty, convenience features, trouble-free performance.



Norge Concentrator Gas Range for better cooking results.

Norge Autobuilt Washer for long years of dependable service.

Norge Quality Ironer, easy to learn to use, fast and efficient.

Norge Whirlator Oil Burner for maximum heating efficiency.

NORGE

ROLLATOR REFRIGERATION

REG. U. S. PAT. OFF.

DOMESTIC AND COMMERCIAL REFRIGERATION • GAS AND ELECTRIC RANGES
• WASHERS AND IRONERS • WHIRLATOR OIL BURNERS • FINE-AIR
FURNACES • AIR CONDITIONING • CIRCULATOR ROOM HEATERS

BATTERY CHARGERS WILL BOOM FARM SALES

New Developments in Wind and Gas Driven Generators also Will Put Small Lighting Units in Lap of Radio Dealer

"THERE'S power in the wind above the trees." This, the new slogan of the Wincharger Corporation, Sioux City, Iowa, is being backed up by the experience of many dealers who recently have sold a new type of 60 foot steel mast, 400 ampere accumulators and the "DeLuxe" dynamo for lighting purposes.

Writes J. M. Chicoine, Skelgas Radio Service, Jefferson, South Dakota, "After a personal, factory investigation of this new proposition for farmers I rolled up my sleeves and went to work—making farm-to-farm calls. I preached the gospel of superior-to-city reception and at no operating cost. After several installations the telephone calls from neighbors kept me busy. Soon found that the big generator could keep quite a few lights going as well, thus doubling my billings—and profits.

"Just yesterday, following a telephone inquiry, drove out in the country and returned with a \$175 order. Not bad in the middle of January. Am busier now than before Christmas."

States L. M. Wallace, Cushing, Iowa: "The three 25-watt lights (smaller unit job) has been my best talking point. A great closer."

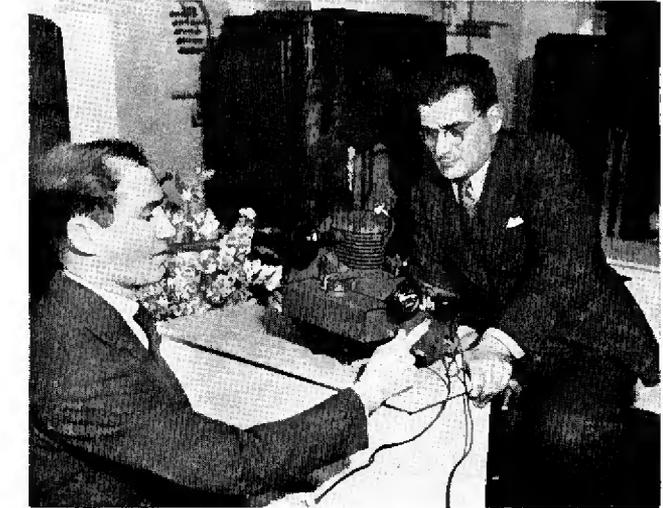
Height is the prime essential for successful wind charging performance for big plants but for radio batteries the short standard masts or barn-top installation invariably is sufficient, as thousands of users have demonstrated. Simply place it where it will get full wind sweep.

For Windless Territory and Positive Control

Stimulated by the quick acceptance of wind-powered battery sets and in response to set owners in locations where the air bloweth not or where more current is desired, a number of concerns are coming out with small gas engines directly connected to the armature shaft of the generator. Pioneer Gen-E-Motor (Chicago) plants come in 150 and 250 watt capacities and are designed to charge 6, 12 and 32-volt batteries or for 110-volt direct application. The small unit lists for \$49.95, the larger at \$59.95. May be used to charge automobile and tractor batteries as well as for radio and lights. Also for portable requirements, camps, etc. An auxiliary pulley is provided for driving small machinery.

At present Dave Bright, president of Pioneer, is calling on all radio manufacturers in the interest of his new development.

Another leader in this field is the Sentinel Radio Corporation, also of Chicago. Retailing for \$49.95, Sentinel's product develops $\frac{3}{4}$ h.p.—18 amps. at six

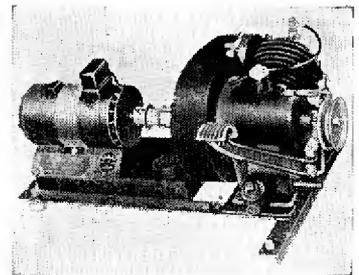


Two-Pint Size . . . But Oh My!

S. C. Schulman, Commonwealth Utilities Co., (right) Atwater Kent distributor for Chicago, gives Pioneer's new gas-powered generator the once over. Dave Bright, president of Gen-E-Motor, views the scene with approval

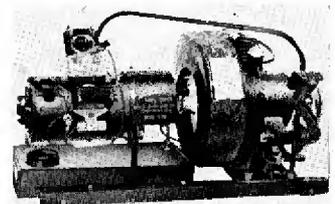
volts, at 1,800 r.p.m. Will run for six hours on one filling of the tank. A touch of a button or pull of a rope starts it. One hour's charging gives eight hours of radio set operation. A larger model soon will be announced.

Commenting on the practical consideration of the operation maintenance of charging devices by the dealer, Herbert Hieb, Iowa distributor for Crosley, points out that regardless of the low cost purchase plan, such service is still demanded. Mr. Hieb declares that there should be a gross margin, for the retailer, of at least \$14 to cover his sales and service costs. He, therefore, favors the long established plan of distribution for this accessory.



Sentinel's "FarmPower"

This compact generator plant opens up a new business for radio dealers. Operates lights, radio and farm equipment. \$49.95 with engine, dynamo; only, \$17.50



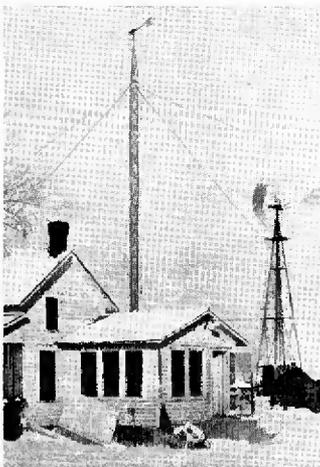
Zenith's "Homepower"

The purchaser of any Zenith battery set can get the new DeLuxe Zenith "Homepower" for \$44.95 (lists at \$64.95) or the Utility model for \$39.95 (reg. price \$59.95). Purposes and outputs similar to other makes described on this page

BOSTON, MASS.—Automatic Radio Manufacturing Company, Inc. (manufacturers of Tom Thumb radios) has moved from 112 Canal Street to 122 Brookline Avenue, Boston.



A Dakota farm home, wired for five lights and radio. 400 ampere, glass jar type battery used. A high mast installation made this sale possible



This South Dakota farm is wired for 14 outlets. An insulated guy wire serves as an ideal aerial

METAL TUBE PRICES TUMBLE

RCA Announces 15 Per Cent Reduction January 15—
Sylvania Follows Suit Seven Days Later

Per predictions, prices on metal tubes took a tumble last month. January 15, RCA cut its original pricings approximately 15 per cent. A week later Hygrade Sylvania matched this move.

As the situation now stands both quote \$1.60 on the 5Z4 (was \$2) and \$1.25 on the 6F5 (originally \$1.75). The \$1.50 numbers drop to \$1.25. 6Q7 and 6X5 remain as before, at \$2 and \$1.75 respectively.

Majority opinion holds that no further reductions may be expected for some time to come.

This move was the natural result of lowered manufacturing costs and is calculated to place m.t. receivers on a close competitive price basis with the glass tubed sets.

New Arcturus Tube Prices

NEWARK, N. J.—Effective Jan. 20, the Arcturus Radio Tube Co., this city, priced its new line of "Coronet metal tubes" at lists ranging from \$1.25 (for types 6C5, 6F5 and 6H6) to \$2 for types 6N7 and 6Q7.

New lists also established on its "G" line (glass with octal base) of from \$1 to \$2.

Hygrade Expands Plant

SALEM, MASS. — Hygrade Sylvania Corporation has announced plans for the immediate

erection of an additional factory building in this city, for the manufacture of tubes. The building will be ready for occupancy by early summer.

"The present factory at Salem has been outgrown," said Walter E. Poor, vice-president in charge of engineering and manufacturing. "It was constructed for the manufacture of incandescent lamps, and our available space has been over-taxed to provide the necessary accommodation for the manufacture of radio tubes, which we started nine years ago. The outlook for the future is so promising, that we have decided to erect a radio tube plant that will be the last word in manufacturing convenience and efficiency."

This new factory will have a floor area of 91,500 square feet. It comprises a main building two stories high, with a third story at the front and a large wing.

Its completion will bring the total floor space of the corporation to more than twelve acres.

OWENSBORO, KY. — Since the recent appointment of Henry C. Grout as Ken-Rad representative in New England, Ken-Rad tube sales have shown a marked increase throughout the New England area, states sales manager C. C. Mathews.

Sylvania Changes

R. P. Almy, formerly head of the sales department in the Sylvania Emporium, Pa., plant, has moved to Chicago as sales supervisor of the Middle West territory.

Paul S. Ellison, in addition to his present work as advertising manager, becomes sales supervisor of the Eastern Division. He will retain headquarters in the New York office of the company.

NEW YORK—Ross Turner has been placed in charge of sales in Texas and Louisiana for the National Union Radio Corporation. Will headquarter at the Medical Arts Building, Fort Worth, Texas.

CHICAGO—John Million, of Million Radio and Television Laboratories, announces the appointment of the following representatives to handle this company's line of service and test equipment: Louis & Sachs, 220 Fifth Ave., New York City and J. J. Perlmuth, 220 E. Pico St., Los Angeles.



Ross Siragusa Heads Continental Radio

CHICAGO—Ross D. Siragusa, founder and former president of the Transformer Corporation of America, maker of Clarion radios, is now general manager and director of sales with the Continental Radio and Television Corp., Chicago.

Others now with this new firm are: John Huarrisa, general superintendent; Kenneth Turner, chief engineer and Z. L. Ross, credit manager. B. E. Freund is in charge of advertising and assisting with sales.

For the past two years Continental Radio and Television Corporation has made most of its output on a private label basis, but the popularity of its Admiral brand led this firm to jobber channels during 1935.

Colen-Gruhn to Handle Zenith in New York

NEW YORK—To serve Zenith dealers in this and surrounding territories, the appointment of Colen-Gruhn Co., Inc., 387 Fourth Avenue, is announced by E. A. Tracey, sales manager of the Zenith Radio Corp., Chicago.

Representing Zenith in Syracuse will be the Onondaga Auto Supply Company.

FRENCH radio manufacturers have a slogan that merits consideration over here: "No radio is complete without a turntable."

Audak Offers \$100 Prize

NEW YORK — Having perfected what is stated to be a revolutionary new system of pick-up reproduction, the Audak Co., 500 Fifth Ave., is telling the world about it in current newspaper ads. A first prize of \$100 has been hung up for the best name for this invention.

Features of the new pick-up will be the elimination of moving mass, previously a handicap to perfect reproduction. The vibrating armature, formerly a barrier to wide range performance, has been made stationary. The new Audak catalog covers the story thoroughly. Free for the asking.

"METAL TUBE" REPLACEMENT LINE MADE BY ARCTURUS CO.

NEWARK—Thirteen "Coronet metal tubes" that directly interchange with the corresponding types of original glass tubes have been developed and are being marketed by the Arcturus Radio Tube Co.

As a beginning the types 24, 27, 51 (35), 55, 56, 57, 58, 75, 77, 78, 80, 82 and 2A6 are being built with metal shell exteriors.

The tubes have the regular octal 8-prong base but to permit their interchange with the older glass tubes, "modernizers" have been developed by Arcturus. These are made with 4, 5 or 6 prong connections for adapting the old socket to an eight-prong socket to accommodate the metal tube case.

"This development permits millions of set owners to modernize their receivers and secure all the advantages of the latest achievement in radio tubes," claims Jack Geartner, sales promotion manager. "Preliminary investigation reveals innumerable set owners, who have become 'metal tube conscious' and have been anxiously awaiting just such a development. It is but natural that



they would want to protect their radio investment and incorporate the latest thing in radio, particularly when it can be done simply at a nominal cost.

"Besides this angle, this development should prove a boon to dealers and servicemen in opening up to them an immediate receptive market and increasing not only their total tube sales but their profit per tube sold."

Pilot
ALL-WAVE RADIO
"The Standard of Excellence"
A Special Broadcast to the
Hon. H.P. Fletcher
(Republican National Chairman)
FROM
PILOT RADIO
(New Item: Mr. Fletcher's radio can't get Chicago)—You can get your Chicago station on an all-wave PILOT radio, Mr. Fletcher. A PILOT brings in U. S. and foreign stations regardless of political affiliations. For any unusual service, choose a PILOT radio.

Good Copy

Frequent use of small space ads is considered better policy than an occasional splurge—especially if your one column "spot" has a new idea behind it. The above fills the bill excellently

Here's the new Leonard!

The Sensational Refrigerator of 1936

It has Everything!

FIVE-YEAR PROTECTION PLAN—Proof of dependability

TEMPERATURE INDICATOR—To show interior cabinet temperatures

TEMPERATURE CONTROL—Thirteen different freezing speeds

RUBBER GRIDS IN EVERY FREEZING TRAY—for easy removal of ice cubes

LEN-A-DRAWER—for storing vegetables not needing refrigeration

CONVENIENCE BASKET—for holding small articles

SLIDING SHELF—a great convenience feature

SERVICE SHELF—on inside of door

CRISPER—moist storage for keeping green vegetables fresh and crisp

LEN-A-DOOR—Door-opening foot pedal

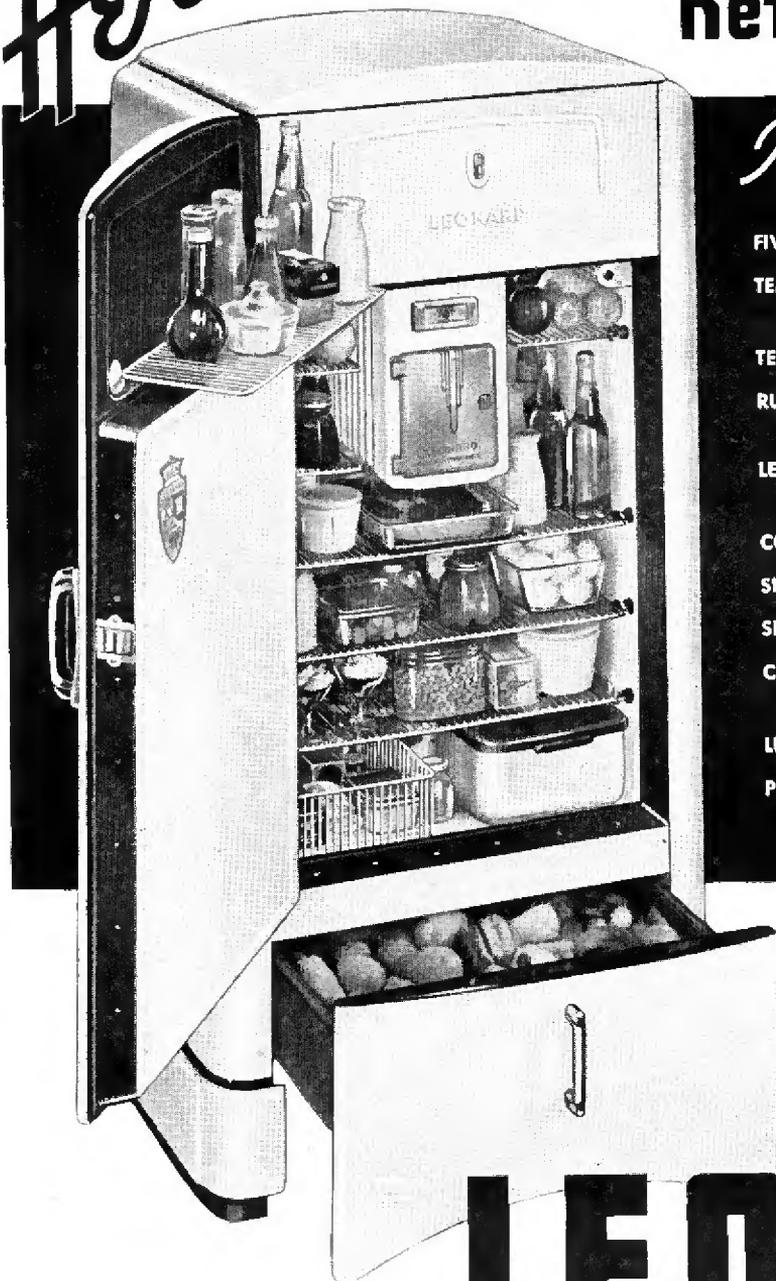
PORCELAIN INTERIOR • CHROME FINISHED HARDWARE

This sensational new Leonard holds tremendous sales and profit opportunities for dealers in 1936. It's the refrigerator that every prospective purchaser will want to see. It will be backed up by a smashing national advertising campaign, bigger than ever before—plus sales promotion and local advertising that will produce results.

Leonard's going places in 1936. There's still time for you to go along if you act at once. Leonard Refrigerator Co., Detroit, Mich.

LEONARD

The "Hot Line" for 1936!



W. R. G. Baker Chief Radio Engineer for GE

BRIDGEPORT—W. R. G. Baker has been appointed managing engineer of the General Electric Company's radio receiver section, with responsibility for both the engineering and the manufacture of its products. Closely associated with GE's initial radio-development activities, Mr. Baker for the past few years has been with the RCA Victor Company.

He started his career in 1917 in the laboratories of the GE Company in Schenectady. In 1926 he was given complete charge of radio development, design and production.

On the formation of the RCA-Victor Corporation, Mr. Baker went to Camden to head its radio engineering activities. He later became general manager of the RCA-Victor plant. Last December, Mr. Baker resumed his association with General Electric.

A leading authority on television, he was, until recently, chairman of the television committee of RCA.

Hotpoint Names Eight District Managers

CLEVELAND, O.—Eight district representatives have been named by the Hotpoint Refrigerator Division of General Electric Company to assist the sales organization, Harry C. Mealey, div. mgr., announces.

The appointments and their headquarters are: F. L. Sacha, Atlanta, Ga.; W. L. Sayre, New England district; E. F. Morford, Cleveland; H. G. Wilds, Philadelphia; E. H. Bryant, Chicago; Lee McLeod, Dallas; S. C. Griswold, Kansas City, Mo., and A. A. Nerling, Pacific district with headquarters at San Francisco.

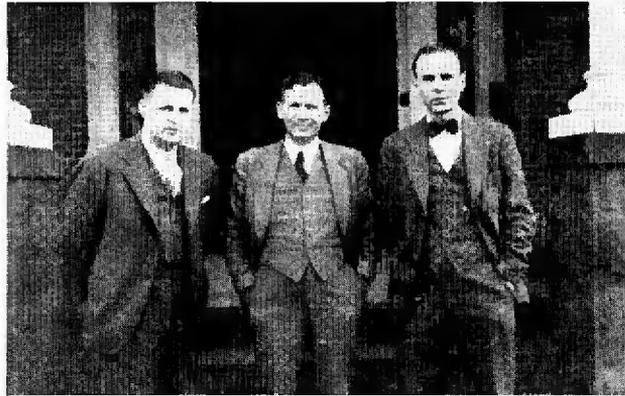
With a total of twelve domestic models for 1936, Hotpoint announces plans for an intensive promotional campaign during the year. Extensive advertising and a wide assortment of effective sales promotional literature are on its schedule.

Mallory Appointments

INDIANAPOLIS—Last month the following changes in personnel assignments were effected by the Radio Division of P. R. Mallory & Company, Manager of Philadelphia office: Arnold Braun, Harry Gebhard, former Philly and New England Yaxley-Mallory manager, goes to the home office. Ralph Clawson will represent both lines in the Boston territory. New York State, Pennsylvania, West Virginia and Maryland will be handled by J. V. Costello, working out of the Buffalo office.

En Route

with RVS



Flanked by ARTHUR MILK publicity dept. Hygrade-Sylvania

And BEN KIEVIT, tube engineer. On recent visit at Emporium plant

There are just about 1,500 radio sets in Mozambique—Portuguese East Africa—a bit of vital gossip we did not pick up on last month's little journey.

Before establishing its new line of ebony-finished receivers, E. F. McDonald, Jr., president of Zenith, ascertained from Mason & Hamlin, piano makers, that 40 per cent of the public preference in pianos is for this ebony finish.

For that fussy trade that insists on restoring inoperative radios to original factory status, including precisely matched replacements, there now exists a wide assortment of exact duplicate electrolytic condensers covering the needs of every standard set. The latest Aerovox catalog (70 Washington Street,

Brooklyn, N. Y.) lists four pages of replacement electrolytics, arranged according to name of set, manufacturer's part number, capacity, voltage, dimensions and list price.

Modern sets should be made in modern buildings, observed Arthur Murray, president of United American Bosch, as we wended our way over the vast acreage of his new daylight factory. Increased business also may have had something to do with this expansion program.

Over 200 hotels in this country are now equipped with complete radio-room service, according to Philco's latest computation. Radio is now regarded by many businesses as a real aid to increased profits.

Dedicated to Enlightenment

BOSTON—"Dedicated to enlightenment" is the motto of shortwave station WIXAL, Boston, Mass. This station operates on frequencies of 6040 and 11790 kc. Its output is given as 10,000 watts.

A review of its latest program sheet reveals a great number of intensely interesting subjects. For any customer who is culturally inclined we recommend giving this station a whirl. May be heard Tuesday and Thursday evenings from 7:15 to 9:30.

Automatic Tuning

EMPORIUM, PA.—S. W. Seeley, RCA License Laboratory, addressed the Emporium Section of the Institute of Radio Engineers Jan. 16. Mr. Seeley

discussed the new circuit development known as automatic frequency control which is applied to superheterodyne circuits to hold the oscillator system exactly in tune. This arrangement makes possible refinements in receiver construction not heretofore possible and assures automatic tuning.

Protest Committee

BROOKLYN, N. Y.—A committee to go to Washington to insure the continuation of FHA financing of major electrical appliances was selected at the January meeting of the Electrical Appliances Dealers Association of Brooklyn.

Herbert L. Carpenter, FHA Chairman of the Brooklyn district, has consented to be one of the committee. Percy Peters and Louis LeWinter left for Washington with Mr. Carpenter during the week of Jan. 27.

A K Advances Jack Helliwell, Floyd Reid

PHILADELPHIA—Atwater Kent announces the addition of H. J. ("Jack") Helliwell to its field sales staff. He will cover Iowa, Minnesota, Nebraska and the Dakotas.

Floyd Reid has been advanced to the post of divisional manager in charge of the Pittsburgh and central New York territory.

Crosley Activities

CINCINNATI — A veritable flood of local dealer meetings is reported by the Crosley Radio Corp. During the past 30 days the following conventions took place:

At Cleveland, Ohio, auspices of the Frankelite Company; at Houston, Texas, 500 retailers attended Reader's Wholesale Distributors' party; Herdon Thomas reports a most successful get-together under the auspices of Beck & Gregg Hdw. Co., Atlanta, Ga.; Perfection Mattress & Spring Co. entertained 150 dealers at Birmingham, Ala., Jan. 21; Braving intense cold, 100 Crosley dealers attended the Pollard-Hasselbalch rally at Omaha, Jan. 15—and Buffalo, N. Y. crashes through with a two-day affair conducted by the Ontario Electric Co., reports George Eckel.

Grunow Men Hold Meeting

ST. LOUIS—Dealers had their first glimpse of the new line of Grunow refrigerators at a sectional meeting held here Jan. 22. Although a blizzard raged, at 12 below, 350 retailers turned out.

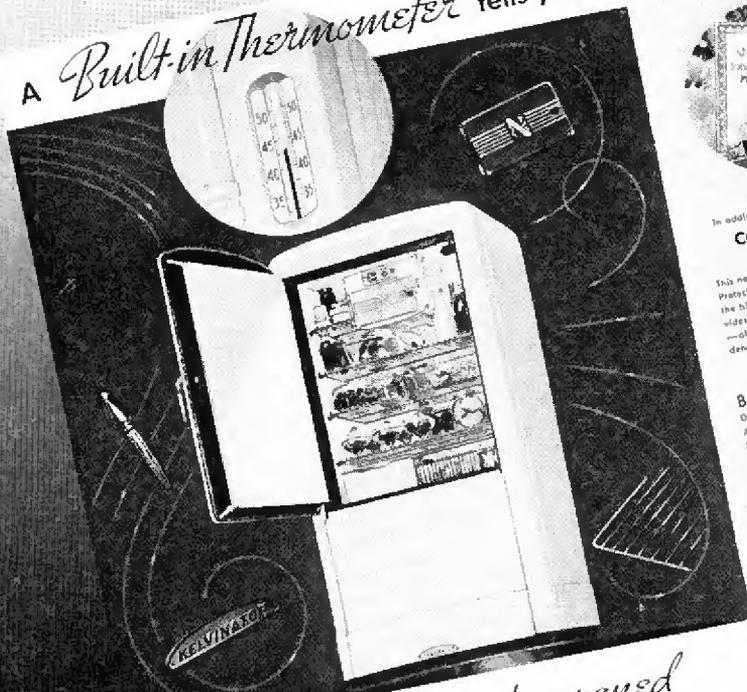
Sales manager H. J. Shartle outlined production and sales plans. Then the new line of De Luxe and Super De Luxe refrigerators was displayed. F. A. Wiebe, v.p. of the Brown Supply Company, presided. Captain Brown, president of this well known jobbing house, echoed the enthusiasm of the dealers when, at the luncheon, he predicted greater sales during 1936.

Smithers Joins Reinhard Bros.

MINNEAPOLIS — H. B. Smithers, formerly with the Atwater Kent Co. and for the past three years with W. M. Dutton & Sons, Omaha and Hastings, Neb., as general sales manager, has resigned to affiliate himself with "Ned" Vestal and Reinhard Bros. Company, this city distributor of Norge and Zenith products.

Big things have Happened at Kelvinator!

A Built-in Thermometer tells you exactly how cold it is



FOR THE FIRST TIME...
In addition to a 5-year Protection Plan
**CERTIFIED LOW COST
OF OPERATION**

This new Kelvinator is backed by a 5-year Protection Plan, and for the first time in the history of the industry, Kelvinator provides a Certificate of Low Operating Cost—absolute proof of the Company's confidence in its product.

Beautiful Cabinets
Designed with the
Art of Court Alais de
Saknoffsky, Famous
Modern Designer.



All ice trays have
Flexible Rubber Grids,
making Colder and
Larger Cubes instantly
Available.



Big things have happened Since you or your friends bought Refrigerators

Today there is a new electric refrigerator - far, far in advance of anything you have seen - or used or heard about - a refrigerator so different that many of the seven million present users of mechanical refrigerators will be ready to replace what they have with something infinitely better.

Scientific developments have resulted in a control of temperature amazingly accurate. For the first time, a built-in thermometer tells you exactly - in degrees -

how cold it is in the food compartment. All possible doubt is removed.

Cost of operation has been reduced to a half and even a third as much as many refrigerators now in use. This cost is offset by the manufacturer so that you know what savings are possible.

It also gives you more ice cubes - colder, larger and instantly accessible. At the refrigerator - it provides a flexible rubber grid in every ice tray.

With new beauty in exterior design, new conveniences in interior arrangement, and features that have never before been offered, the 1936 Kelvinator opens a new era in refrigeration.

Kelvinator dealers are ready to give you all the facts and tell you about the new Kelvinator plan by which you can put the Kelvinator out of the actual savings it makes possible.

THE 1936 KELVINATOR IS THE ONLY REFRIGERATOR THAT OFFERS ALL THESE FEATURES

1. A built-in thermometer
 2. A certificate of low cost of operation
 3. New beauty in design
 4. 5-year protection plan
 5. Flexibility in interior arrangement
 6. Larger ice tray
 7. Flexible rubber grid in every ice tray
 8. Economy of wiring switch...
 9. Spacing shelves adjustable
 10. Economy of wiring switch...
 11. Spacing shelves adjustable
- A New High Standard of Modern Refrigeration

See the new **KELVINATOR** *Your next refrigerator*

Concentrate on Kelvinator in 1936!

FCC ON THE GRILL

Congressmen, Mixing in Station Matters, Embarrass Commission with Many Investigations—May Change Present Broadcasting Structure

WASHINGTON, D. C.—The sweeping Congressional inquiry into the activities of the Federal Communications Commission, demanded by Representative William P. Connery (Massachusetts Dem.) here, Jan. 15, is the latest of many hecklings of FCC by political interests.

Many months ago *Radio Retailing* predicted that the control set-up of the Radio Commission, subject to the whims of Congress, would lead inevitably to inept interference by a host of self-seeking Congressmen. This prediction is borne out by the following recent developments:

Department of Justice agents' new inquiry into FCC affairs with particular attention to the handling of the applications of station WNEF, Binghamton, N. Y., and the Knox Broadcasting Co., Schenectady.

A rumor that political intervention is about to cause the commissioners to reverse their decision to cancel the license of KFYZ, Bismarck, N. D.

The publication of a letter sent Commissioner Prall by Representative Richard A. Wigglesworth, and Prall's reply, in which the Congressman asks many pointed questions about radio control policies. It is rumored that a majority of the members of the Communication Commission did not agree with Chairman Prall's reply.

The appointment of a committee to investigate the allotment of greater time for non-profit programs.

The investigation by the Department of Justice of the circumstances surrounding the claims of WNEF and the Knox Broadcasting Company for the right to use the 1,240 kc. channel. Ugly rumors of bribery of a Commissioner besmirched this situation.

The controversy, headed by Henry P. Fletcher (Republican National Committee Chairman) for equal time on the air to combat the New Deal propaganda.

Partisan Control Charged

Supplementing Fletcher's demands for Republican rebuttal time, E. H. Harris, a member of the National Radio Commission of the American Newspaper Publishers Association, in a speech at Harrisburg, Pa., Jan. 24, declared that radio is under a "very definite and partisan control." FCC is under the "power of fear" he charged, applied by the party in control at Washington to further its own ends. He pointed out that the existing short term station license clause places all stations in jeopardy giving government a powerful weapon to wield against the press.

But Chairman Anning S. Prall (FCC) defends this practice stoutly on the grounds that this club is needed to wave over the heads of the many stations who run objectionable programs and advertising claims by spon-

sors, or who are operating "poor" transmission and otherwise causing technical trouble on the air waves.

At present the Commission is pondering 300 charges against over 100 stations.

As if this were not enough, the intense rivalry between NBC and Columbia reaches fever heights with the publication of each succeeding promotional piece wherein each chain claims dominance in this or that field of broadcasting activities.

Insull Radio Chain

CHICAGO—Plans for a new mid-west network have virtually been completed by Samuel Insull, one-time head of the vast Insull utilities empire. This new chain of low wattage will be known as the Affiliated Broadcasting Company—when and if approved by the Federal authorities.

Fourteen stations, in Illinois, Indiana and Wisconsin, will be involved.

ROCHESTER, N. Y.—Effective Jan. 20, Stromberg-Carlson raised slightly the list prices on its models 61-H (table) and its No. 84 console. Increased taxes and material costs, the reason.



Earl Herrmann

New advertising man for Zenith. Served with Victor, in Canada, with Lord and Thomas — "and now with the fastest act in the radio circuit"

A New Parts Jobber Headquarters in Hartford

HARTFORD — Francis E. Stern, well-known set distributor, this city, writes that he has just organized a new concern to be known as the Stern Wholesale Parts, Inc. Mr. Stern will head this outfit and Perry S. Graffam, for the past several years treasurer of the Tobe Deutschmann Company, will be vice-president.

Business of this new company will be devoted exclusively to the sale of radio parts at wholesale. A complete line of amateur supplies will be handled. Facilities will be available for the repair of sets for those service men and dealers lacking proper shop facilities.

This strictly wholesale parts organization will cover the territory covered by the parent company, Stern & Co., namely, Connecticut, Vermont and western Massachusetts.

IRSM Show Scheduled for March 27, Chicago

CHICAGO—Elaborate preparations are being made for the 1936 Radio Parts Show and Fourth National Convention of the Institute of Radio Service Men at the Hotel Sherman, March 27 to 29. The convention graduates from the first floor to the Exhibition Hall and Grand Ball Room.

The first announcement of this show went to exhibitors the last day of the old year. Before the close of Jan. 2 more than 15 per cent of the exhibition space had been sold.

29,789 Service Men

INDIANAPOLIS — They sent P. R. Mallory & Co. their condenser problems. Boiled down, in a 96-page booklet, their questions are answered. The Yaxley-Mallory Condenser Service and Replacement Manual is the most complete treatise on this subject we've seen in many a moon. Includes a general catalog section and installation instructions for every set on the market. Write this concern at Indianapolis, Ind., for your copy.

New Job for Fred Lester

CHICAGO—Fred Lester, for six years with Wells Gardner Co., is the new factory superintendent for the Meissner Mfg. Co. Incidentally this firm moves to Mt. Carmel, Ill., the first of February. Salesmanager George Rockey will operate from this new address although a sales office will be maintained in Chicago.

S-C Centralizes Parts Stock

ROCHESTER — Stromberg-Carlson has inaugurated a centralized control of repair parts. Warehousing operations on these items are being closed out and the resulting savings in overhead being applied to better service and transportation. Orders of repair parts are now being shipped from the factory on the same day they are received.

O. G. Ayer Honored

NEW YORK—at the annual meeting of the New York Chapter, Institute of Radio Service Men, held Jan. 13, the following officers were elected: O. G. Ayer, chairman; E. E. Manderville, vice-chairman; David Davidson, secretary; Harold Olson, treasurer and L. Shine, press relations.

Radolek Salesmen Get Oscillograph Dope First Hand



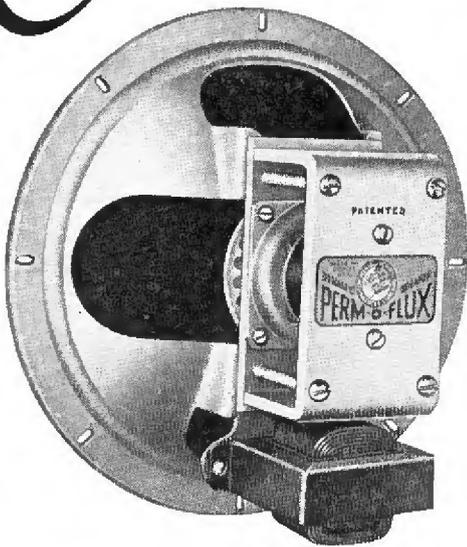
Still a source of mystery to many, the oscillograph is no longer an unknown quantity to Radolek salesmen. The entire force visited the Clough-Brenge factory to get first hand working knowledge of this instrument that is proving such a tremendous improvement over the old neutralizing tools. This group of Radolekors are being initiated into the mysteries of the oscillograph by Ken Clough himself

CONTINENTAL MOTORS

Announces



PERM-O-FLUX



The Most Important Development in the Radio Field Since the Dynamic Speaker.

A new magnetic material, developed and perfected in the Laboratories of Continental Motors Corporation, has proved to be the most powerful yet known to metallurgical science for radio speaker applications.

This material is used as a source of magnetic energy in the motor assembly of the new, patented PERM-O-FLUX Dynamic Speaker.

The Continental PERM-O-FLUX is lighter than the average electro-dynamic speaker but has equal or better sensitivity. Due to the unusually high flux density in the gap, the tone quality is lifelike and without distortion.

A special, unique design of the voice coil and suspension insures continuous and trouble-free operation. The PERM-O-FLUX speaker has a permanent flux density in the gap requiring no outside energy for field excitation thereby reducing battery drain—a very important item on all automobile and farm sets. Other decided advantages of the Continental PERM-O-FLUX are:

1. **No heat dissipation** to distort voice coil or cones.
2. **No hot leads** carrying power for field excitation, which eliminates fire hazard.
3. **Simplified Installation.**
4. **Shielding of speaker is unnecessary**, in the case of automobile installation. This means that more consideration can be given to acoustical conditions, and enclosures can be obtained other than metal enclosures.
5. **Vibrator noise is eliminated**, in auto sets, due to absence of couplings between voice coil and field coils.

Advantages too numerous to mention are offered for other types of installation such as sound systems, hotel room installation, ship state rooms, call systems or wherever true reproduction is required and power consumption is a factor.

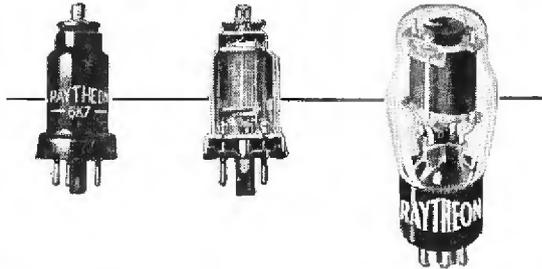
Particulars gladly furnished on request.

Continental Motors Corporation

Radio Speaker Division

DETROIT, MICH.

RAYTHEON
TRADE-MARK
4-PILLAR GLASS AND ALL-METAL RADIO TUBES



"Radio will elect the next President"

CARRY ON WITH RAYTHEON!
The Raytheon Line is complete... 4-Pillar Glass, "G" Type and All-Metal Tubes... Raytheon's 1936 Sales Campaign will help you sell tubes... at a PROFIT!

Visit with Raytheon at Booth 15, in the 4th Annual National Convention and Radio Trade Show, Hotel Sherman, Chicago, Ill., March 27, 28 & 29.



TECHNICAL DATA CHART

Raytheon has distributed hundreds of thousands of the previous 8 editions. The NEW NINTH EDITION will be off the press soon! This chart gives all the important characteristics of types formerly listed; includes information on all the new tubes and other valuable reference data—it's NEW! It's UP-TO-DATE! It's FREE!

Headquarters for Tube Information

RAYTHEON PRODUCTION CORP.

- 30 EAST 42nd STREET NEW YORK, N. Y.
- 55 CHAPEL STREET NEWTON, MASS.
- 445 LAKE SHORE DRIVE CHICAGO, ILL.
- 555 HOWARD STREET SAN FRANCISCO, CAL.
- 415 PEACHTREE STREET, N. E. ATLANTA, GA.

RAYTHEON PRODUCTION CORP.

Dept. A-2, 30 East 42nd St., New York, N. Y.

Please send NEW 9th Edition Tube Chart, FREE!

Name
PLEASE PRINT

Address

City

INCREASE YOUR SALES WITH



Factory-Type Service



An outstanding service department, equipped with the latest and best apparatus, can be used to build prestige, increase sales of new sets as well as get more repair work and do it better. People prefer to go where they can get factory-type service. The RCA Oscillograph, with RCA Test Oscillator and RCA Frequency

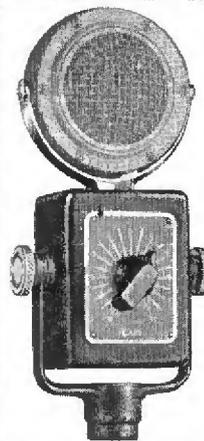
Modulator, duplicates factory practice with great ease, accuracy, swiftness, peaking I. F. transformers, checking distortion, etc. Ask to see it at your RCA Parts Distributors.

RCA Cathode Ray Oscillograph—accurate, scientific, simple to use, impressive to customers.

\$84.50 net, complete

RCA OSCILLOGRAPH

RCA Parts Division, RCA Mfg. Co., Inc.
Camden, New Jersey. A service of the
RADIO CORPORATION OF AMERICA



THE MICROVOX

A COLOR-TONE PRODUCT

A Combination Volume and Tone Control Device for Use With Crystal Microphones.

Gives complete control of the sound reproduction directly from the microphone, instead of from the amplifier.

Provides the Only Efficient Means of Eliminating Feed-Back Interruption.

The MICROVOX may be purchased either with or without microphone.

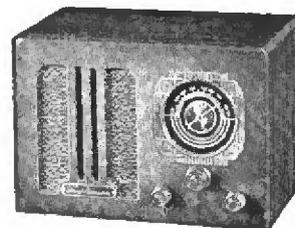
Fully licensed for recording, broadcasting, and all public address operation.

Dealers and jobbers write for full information

COLOR-TONE, INC.
STURGIS, MICHIGAN

A BRAND NEW IDEA IN COMPACT SETS

by *Freed-Eisemann*



A new 5 tube Superheterodyne midset built like a big set. 7 tube performance with 5 multirange tubes—dynamic speaker—nickel-plated dial—for either AC or DC current—135 to 650 meters—large lighted dial—tone control—in hand rubbed, solid Walnut, Maple or Mahogany cabinets.

Exclusive cabinet designs and brand names for quantity buyers. Complete export line for foreign use.

Send for full information on the entire line of Private Brand and FREED-EISEMANN Radio sets.

FREED MANUFACTURING CO., INC.
41 West 18th Street
NEW YORK, N. Y.

REFRIGERATOR MAKERS HIT NEW SEASON IN FULL STRIDE WITH LIVELY CONVENTIONS

Norge, Frigidaire, General Electric, Leonard, Kelvinator, Gibson, Crosley, Stewart-Warner, Sparton Display New Models of Innovational Design and Striking Appearance to Enthusiastic Sales Representatives

GANGING up on trains, boats and planes, distributors, dealers and salesmen hied forth in January to many a manufacturing center to be dined, wined (stet!) and told what refrigerator makers had up their sleeve for 1936. Excitement and anticipation was heightened by the thumping return of confidence in business generally and the biggest year in refrigeration safely inscribed in many a sales ledger.

To Cleveland went **General Electric** men, listened to optimistic speeches by vice president C. E. Wilson, general manager Paul Zimmermann. Three lines were exposed for inspection, the Monitor Top, Flatop and Liftop. Absent was any significant change in price structures. Monitor Top models had new modern-design control for defrosting.

In Detroit, nearly a thousand crowded into the Players Club and the Detroit-Leland Hotel to be greeted by scholarly Howard Blood, **Norge** president and hard-hitting John H. Knapp, vice president in charge of sales. To speeches outlining the growing importance of Norge in the industry, sandwiched between amusing skits, written and directed by versatile Jim Sterling, Norge ad-director, the distributors poured through rooms lavish with displays of refrigerators, ranges, washers, water heaters.

Indicative of the live deal-

er-meetings job being conducted by **Fairbanks Morse** was the presentation by Charlie Turneck at Milwaukee. Over 150 dealers were thoroughly sold on this line of new type refrigerators, aided and abetted by inspiring speeches from the lips of W. Paul Jones, W. R. Coperly, of the home office, and divisional manager Bob Anderson.

Frigidaire follows its national conclave with 38 dramatic district meetings to bring home to the small town and city dealer its new refrigerators—"stunningly beautiful."

Leonard, at its big convention, stressed a new five-year protection plan and, from the product end, its temperature indicator. By the way, thermometers are getting the call, internally fastened, on a number of the 1936 boxes, **Kelvinator** is another to play up this feature.

That **Crosley's** "new styl-

ing" has made a hit is seen in the wave of new—and substantial—distributors recently appointed. For example: **Morris Distributing Co.**, Binghamton, N. Y. (branch at Albany); **Maurer Gruesel Co.**, Milwaukee; **Motor Power Equip. Co.**, St. Paul and Minneapolis, and for Denver, the **Moor-Bird Company**.

"The biggest ad campaign in **Hotpoint** history" was the convention claim of this contender for top honors in the forthcoming refrigeration battle for business. It will tell the story of the "Visualizer" and "Featurizer." Other sales tools (101 in all) handed the **Hotpoint** dealer this year will be the new customer savings bank plan.

JACKSON, MICH. — The **Sparks-Withington Co.**, held a highly successful convention here Jan. 13-14. Seven new items in the **Sparton** line of electric refrigerators were acclaimed by the 130 wholesalers present as "tops" as far as their observations were concerned.

Captain **William Sparks** opened the first session in his customary genial vein. Others on the program were **Harry G. Sparks**, general manager, **E. T. H. Hutcheson**, **Arthur Haugh** and **Guy Core**.

DETROIT—Setting new standards for design, performance, and operating economy, **Kelvinator Corporation's** new 1936 models of electric refrigerators, electric ranges, electric water heaters, and gas ranges were presented to 1,000 distributors, members of their selling organizations, and representatives of major utility companies from every section of the country at the **Kelvinator** national convention, held here January 8-10.

George Kiley Joins Gibson

GREENEVILLE—**George H. Kiley**, formerly eastern district sales manager for **Grunow**, is now in charge of sales for the **New England** states and the northern **New York** district for the **Gibson Electric Refrigerator Corp.**

Two new distributors have joined the ranks of live **Gibson** representatives in **Pennsylvania**. **M. A. Hartley** and



"Hike" Tells 'Em

H. W. Newell, now of the ad firm of **Geyer, Cornell & Newell**, highlights **Kelvinator's** big publicity plans—at recent convention. "Hike" formerly was a **Frigidaire** v. p.

Co., **Gettysburg**, will cover four counties in Pa., and three in **Maryland**, while **Knerr, Inc.**, of **Harrisburg**, gets central **Pennsylvania**.

Crosley Adds Washers and An Ironer to Line

CINCINNATI—The outstanding event of the Mid-winter convention of **Crosley** distributors at the plant of the **Crosley Radio Corporation**, held Jan. 10, was the announcement that this concern had entered the washing machine and ironer field. To be known as the "Savamaid," the new products will be handled by the existing sales organization. An outstanding value in a spinner type of electric washer was tagged at \$99.50.

Innovational in the five new radio sets introduced was the "auto-expressionator" and base compensator.

CHICAGO—*New Year's gifts of wage increases and vacations on full pay for factory employees were announced by Edward N. Hurley, Jr., president of the Electrical Household Utilities Corporation, maker of Thor washers and ironers.*

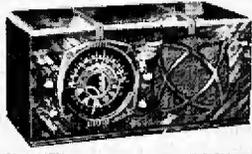
Program Tie-in Sells Electrical Merchandise



Trask, Prescott & Richardson, **Erie, Pa.**, tied in with the many programs sponsoring the products it sells—and increased sales from 30 to 300 per cent. Windows, store displays and newspaper ads told the program story.

In another town a smart radio dealer loaned a receiver to a shoe merchant for his program tie-in, and copped five live leads for sets.

NEW MERCHANDISE



Continental M169

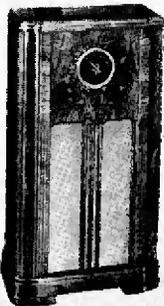
Continental "Admiral" Radios

"The Step-up Line" of 1936 Admiral radios is being introduced by the Continental Radio and Television Corp., 325 W. Huron St., Chicago. There are 13 models—12 for the home and a metal tube auto-radio. Six volt battery sets are also included.

All sets for a.c. operation, except the lowest priced one, are equipped with metal tubes. The auto-radio has 2 metal tubes. Eight inch dials and 12 in. auditorium speakers are used in the 40 in. consoles. The list prices range from \$27.50 to \$39.50.

Outstanding in the line is the "Lo Boy", Model M169, a compact table model (see cut). It is a 6 tube set (3 metal tubes).

Zone index tuning, a new feature of the Admiral line, is offered in every model. It presents a dial arrangement that makes reference tuning of popular stations possible without consulting the frequency or wave-length of the station. — *Radio Retailing*, February, 1936.



Continental Console

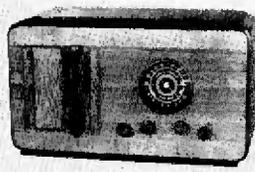
Jensen Speakers

The Jensen Radio Mfg. Co., 601 S. Laramie Ave., Chicago, has just released a complete new line of permanent magnet electro-dynamic speakers in 6, 8, 10 and 12-in. sizes. The principal feature is the use of a newly discovered alloy used in the magnetic structure. This permits a very substantial improvement in performance.

Battery type radio receivers for automobile or home may now be equipped with electro-dynamic speakers comparable to the energized type used in a.c. receivers. For p. a. work and other general applications several models are offered, all particularly suited for the purpose. — *Radio Retailing*, February, 1936.

Westinghouse Table Sets

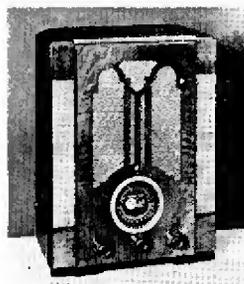
Westinghouse Electric Supply Co., 150 Varick St., New York City, announces two "Golden Jubilee" sets, both table models—the Trumpeter, WR-207, and the Jubilee, WR-208. The cabinets have been created by a noted designer. Instead of the conventional center position, the dial has been moved to the right, with the speaker grille on the left. Easy reading for fast tuning is achieved by a large illuminated black and white dial. Popularly priced.—*Radio Retailing*, February, 1936.



Westinghouse 208

AK Model 725

The new and distinctive "Arrow Light Tuning" is incorporated in the Model 725 table set just brought out by the Atwater Kent Mfg. Co., Philadelphia, Pa. A moving arrow of light points out the stations so that they may be tuned in easily and accurately. This set also has the new rainbow dial on which the tuning scales are illuminated in an unusual manner through the edge of the glass. The figures are printed on the glass by a special process and stand out in a soft glow like a well-lighted etching. This set covers the standard broadcast band as well as stations up to 13,000 kc. Uses metal tubes.—*Radio Retailing*, February, 1936.



Atwater Kent 725

Solar Dual Type "Little Giants"

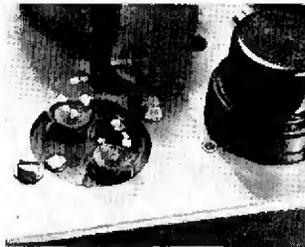
The ultra-compact midget dry electrolytics introduced by the Solar Mfg. Corp., 599 Broadway, New York City, some months ago can now be had in the dual type. This series affords the same space-saving economy and offers lower cost than buying two singles with increased convenience through flange mounting. They are made with separate sections, with leads from each section. Four types are available.—*Radio Retailing*, February, 1936.



Crosley Barkentine

Crosley Radios

The "Auto-Expressionator," a radically new development, makes its initial appearance in the 1936 De Luxe line of sets of the Crosley Radio Corp., Cincinnati, Ohio. It restores the full expression range of radio programs just as they are played in the studio—before monitoring by the station engineer—the announcement reads. What occurs is this. The heavy volume that



Crosley "Auto-Expressionator"

has been compressed, so to speak, by the control man, is restored to its entire fullness. Likewise, the light passages that have been increased in volume are automatically reduced to the softness with which they were rendered by the orchestra.

The Auto Expressionator is a device with two paths through which the electric current may flow. The speaker is connected in the circuit of one of these paths and the Auto-Expressionator bulbs are in the other path. At low volume the signal divides equally between the two paths. As the volume increases the Auto-Expressionator, or bulb path, becomes more and more restricted causing more and more electric current to be diverted and flow through the speaker. The set may be operated with or without this device by means of a switch on the front panel.

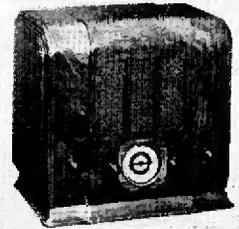
Other features are an Automatic Bass Control, a newly developed vibroacoustic sounding board and curvilinear speaker cone. Dialing is made easier by the new magnum dial. Time-logging is possible with this dial.

As usual the Crosley line covers a wide variety of sets ranging from the Travo, a 4 tube a.c.-d.c. set, \$25, to an 11 tube console, \$149.50. Both metal and glass tube models are offered as well as a most complete series of battery operated radios. To go with the latter, Crosley offers the "Wincharger" to keep the 6 volt storage battery charged.—*Radio Retailing*, February, 1936.

Fada Radios

The new Model 168 of the Fada Radio & Electric Co., 30-20 Thomson Ave., Long Island City, N. Y., is a 6 tube, ac-dc, three band world-wide superhet with frequency range of from 147-340 kc., 515-1530 kc., and 5.75 to 15.8 mc., including weather band. Ten tuned circuits, 8 tube performance, \$49.95.

Model 167 is a 6-tube ac-dc set with frequency range of from 530-1540 kc., and 5.75 to 15.8 mc. Contains same chassis features as Model 168 and comes in the same cabinet. \$44.95.—*Radio Retailing*, February, 1936.

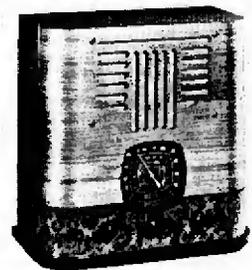


Fada 167 and 168

Kadette Model 77

An all-world 7 tube ac-dc radio, Model 77, has just been placed on the market by the International Radio Corp., Ann Arbor, Mich. This set has two tuning bands—550-1600 kc. and 5.5-15.5 mc. with extra large airplane dial, convex crystal enclosed and illuminated in two colors. Tubes used are: 6A7, 7G, 43, 6D6, 43, 25Z5 and 60R30.

In appearance and styling it is a companion model to the Model 66. \$26.95.—*Radio Retailing*, February, 1936.



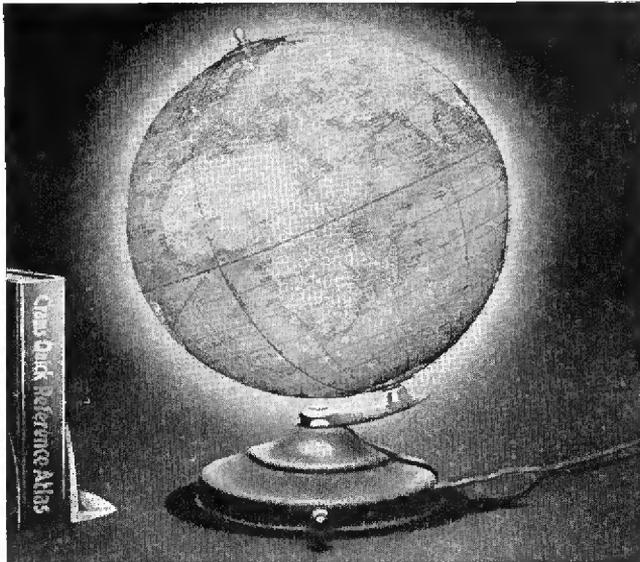
Kadette 77

Taco Master Antenna System

As many as 25 sets may be operated on a single aerial and down with the new master antenna system of the Technical Appliance Corp., 17 E. 16th St., New York City. Equally effective for short wave and broadcast reception.

This system is available in any combination of components for any kind and size of installation. Also available for concealed wiring in new buildings or exposed wiring in old buildings.—*Radio Retailing*, February 1936.

Radio Retailing, February, 1936



Everyone Wants a World Globe!

Formerly expensive, globes were regarded as a luxury or "high-brow" item. Now, with short wave and world news through radio, newspapers and magazines, everyone needs a globe. Alert dealers cash in on globe demand to sell radios. Model pictured is our Illuminated Radio Globe, "The World Aglow."

Sizes, styles and prices of globes to meet any premium or promotional desire

The George F. Cram Company
Globes—Atlases—Maps—Since 1867

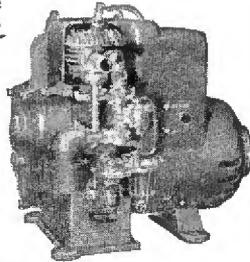
Indianapolis

Indiana



Complete Electric Plants

ONAN ALTERNATING CURRENT PLANTS supply electricity for Camps, Cottages, Farms, Boats, Commercial Purposes and places where current is not supplied by power companies. Operate Radio, Water System, Refrigerator, all Household Appliances as well as Public Address and Sound Car Equipment.



Sizes to Suit Every Purpose

110 volt, 60 cycle, A.C.—32 volt, D.C. Capacities 350 watts and up, prices \$110 and up available from stock. Complete, ready to run.

Gasoline, Gas, or Oil Burning types in larger sizes. Write for details.

D. W. ONAN & SONS

431 Royalston Ave., Minneapolis, Minn.

HEADSETS!

There's a constant market for headsets—for sick-room use, deaf persons, short-wave tuning, to cut out loud speakers when occasion demands. Every dealer should have a supply of good headsets—Cannon, Cannon-Ball sets—that perform right because they're made right. Write for bulletin and price list.



Three lines—low, medium and high priced, all good, the last word in efficiency, appearance and stability. Established 1920.

C. F. CANNON COMPANY
SPRINGWATER, N. Y.

"SYLVANIA NEVER LETS YOU DOWN!"



"SYLVANIA COOPERATES . . . NO RED TAPE . . . AND AN EXTRA PROFIT ON EVERY TUBE I SELL!"

●And that's why more and more dealers and distributors are stocking Sylvania Radio Tubes. They know that Sylvania always backs them up . . . always plays good clean ball with its dealers.

We believe you'd like the way Sylvania does business, too. . . that you'd like to deal with a company that sees your side of the question . . . that *never lets you down*. Find out about the Sylvania guarantee . . . about the sound policies that make selling Sylvania tubes so much easier. It may mean money to you.

Write today for more details about Sylvania's. They're as good a tube as money can buy . . . they're made by a company you can depend on . . . and remember, you get that *extra margin of profit* that rings the bell on your cash register.

SYLVANIA

THE SET-TESTED RADIO TUBE

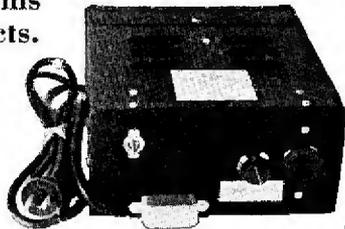
DC-AC New 1936 **ATR** INVERTERS

For Producing **A.C. CURRENT ANYWHERE**

In Cars . . . On Farms
. . . in D. C. Districts.

Featuring

- Interference Free All-Wave radio operation
- New Improved Long Life Vibrators
- Four Point Voltage Regulators



**PROVEN—DEPENDABLE
GUARANTEED**

. . . for operating STANDARD A.C. RADIOS, PUBLIC ADDRESS SYSTEMS, TESTING EQUIPMENT, fans, vacuum cleaners, mixers, hair dryers, curling irons, medical appliances and all other similar A.C. equipment.

Type	D.C. Input	A.C. Output	Maximum Cap	List Price
6	6 volts	110 V. 50-60 cycles	50 watts	\$18.50
12	12 volts	110 V. 50-60 cycles	100 watts	\$18.50
32	32 volts	110 V. 50-60 cycles	100 watts	\$18.50
110	110 volts	110 V. 50-60 cycles	200 watts	\$18.50

Inverters for various D.C. input voltages from 6 to 220 volts D.C. and A.C. outputs of both 110 and 220 volts are also available.

WRITE OR WIRE FOR ADDITIONAL INFORMATION

Sold by Leading Jobbers Everywhere.

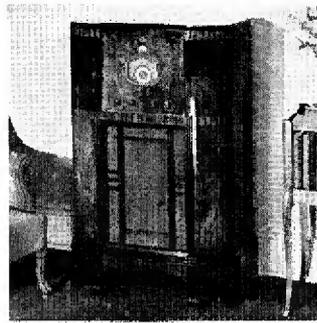
AMERICAN TELEVISION & RADIO CO.

St. Paul, Minnesota, U.S.A.

Cable Address: "LIKEX" New York

List Price
\$18.50*

*Without radio filter.
\$22.50 with built-in filter.
Specify type desired
**STANDARD DIS-
COUNTS APPLY**



RCA-Victor C-11-3

New RCA-Victor Sets

Three table sets and three consoles have just been brought out by the RCA Mfg. Co., Camden, N. J.

The table sets are: Model T8-18, 8 tubes, 540-18,000 kc., Magic Eye and Brain, \$69.95; T6-7, 6 tubes, 540-18,000 kc., ac-dc, \$49.95; T9-10, 9 tubes, 540-18,000 kc., Magic Eye and Brain, automatic signal stabilizer, \$79.95.

The consoles include: Model C11-3, 11 tubes, 540-18,000 kc., Magic Eye and Brain, selector dial, \$150; C6-12, 6 tubes, 540-6900 kc., \$49.95; C8-20 and C8-19, 8 tubes, 540-18,000 kc., Magic Brain and Eye, Colorband dial, \$89.95; and C6-8, a low priced instrument for ac-dc, 6 tubes, 540-18,000 kc., \$69.95.

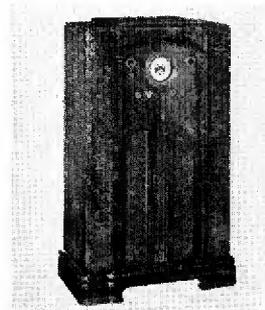
All sets use metal tubes and all but Models T9-10 and C11-3 have wave trap for elimination of long-wave interference.—*Radio Retailing*, February, 1936.

Emerson Model 116

A new upright table set, Model 116, is the latest addition to the line of Emerson Radio & Phonograph Corp., 111 Eighth Ave., New York City. It is a two band, 5 tube a.c. super-heterodyne with "Micro-Selector" tuning principle.—*Radio Retailing*, February, 1936.

Garod Grand

The illustrated console made by the Garod Radio Corp., 115 4th Ave., New York City, is a 20-tube, high fidelity, five band receiver using metal tubes. The set has Master Control, Vision Master, automatic signal indicator and poly-chromatic dial.—*Radio Retailing*, February, 1936.



Garod "Grand"

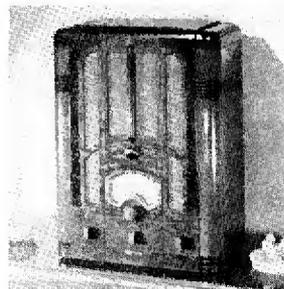
Argus Candid Camera

Strikingly similar in appearance to the well known Leica camera is the new "Argus" candid camera being made by the International Research Corp., Ann Arbor, Mich., a division of the International Radio Corp., maker of the Kadette radio. This camera will list for the low price of \$12.50.

Briefly the specifications are: F:4.5 Anastigmat triple lens, 1 to 36 exposures, new rapid shutter, visible automatic exposure counter, automatic focusing, optical eye level view finder, camera functions as principal part of enlarger, thus saving expense.

It comes in a modern bakelite case in black and chromium, gray and gun metal, and tan and gold. (5 x 2 1/2 in.) The latter is \$15.

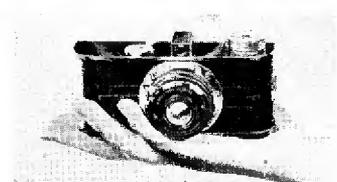
Enlargements of small prints can be made up to 8 x 10 without loss of fidelity and detail.—*Radio Retailing*, February, 1936.



RCA-Victor T8-15

Radio-Cellarette

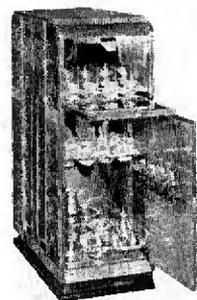
A compact radio console equipped with bar service for eight, to be known as the "Radio-Cellarette" may be obtained from the Superior Cabinet Corp., 3611-14th Ave., Brooklyn, N. Y. The cabinet is made of figured burl walnut with oriental striping and carved top frame, and is liquor-proof.—*Radio Retailing*, February, 1936.



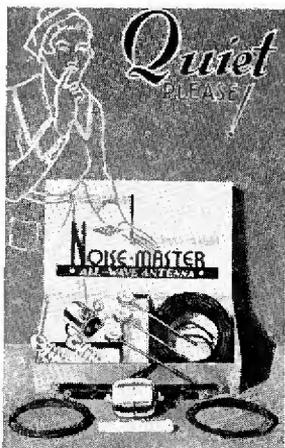
Argus Candid Camera

Hickok Tube Tester

Model A.C. 49 dynamic mutual conductance tube tester of the Hickok Electrical Instrument Co., Cleveland, Ohio, has long scale edgewise meter and direct reading mutual conductance scale. The English reading scale is combined with actual microhmho scale. This tester has double range meter, 0-3000 0-8000 micromhos, indicating any value from 10 micromhos to 6000 micromhos. *Tests metal shield tubes.—*Radio Retailing*, February, 1936.



Superior "Radio-Cellarette"



"Noise-Master" makes every receiving set a BETTER set. Electrically AUTOMATIC in operation. Eliminates "man-made" static on both broadcast and short-wave lengths.

List price . . . **\$6.75**

Also available with special transformers for European broadcast bands. . . list, \$7.00

CORNISH WIRE CO., Inc.
30 Church St., New York City



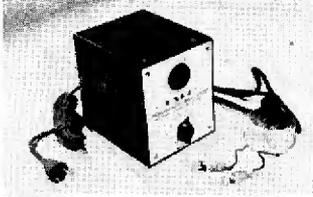
Glass or Metal
Radio Tubes

Ken-Rad Radio Tubes

The Ken-Rad name means finest engineering, highest quality, perfect performance. Write for our complete dealer sales plan to learn how to increase radio tube business.

The Ken-Rad Corporation, Inc., Owensboro, Ky.

Division of The Ken-Rad Tube and Lamp Corporation
Also Mfrs. of Ken-Rad Incandescent Electric Lamps



Taco Resonance Indicator

Of outstanding usefulness to service men and laboratory workers, is the Taco resonance indicator offered by the Technical Appliance Corp., 17 E. 16th St., New York City.

Making use of the 6E5 electron-eye tube, this compact metal-cased device indicates degree of resonance for accurate tuning of set or individual r.f. and i.f. circuits, is ideal for aligning stages, may be used as output meter, checks for opens or shorts in component parts and circuits, permits of matching condensers and indicates capacity values, checks audio fidelity and as a bridge indicator, in place of galvanometer, it eliminates danger of burnouts yet provides critical visual indication.

It employs two 6H6 metal tubes in conjunction with 6E5 electron-eye tube.—*Radio Retailing*, February, 1936.

Mallory Replacement Condensers

An unusual new line of replacement condensers incorporating practical features, which for the first time, Mallory claims, make universal application an actuality is now ready at the plant of P. R. Mallory & Co. Inc., Indianapolis, Ind.

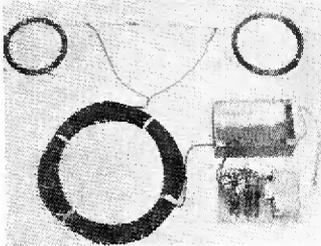
The new units are smaller but of right size to fit all applications. This feature, together with unique mounting flange for carton types and clever fittings for round can types, permit only 63 condensers to service all sets using electrolytics.—*Radio Retailing*, February, 1936.



Supreme Model 491 Analyzer

Model 491 theater, p.a. and radio analyzer is announced by the Supreme Instrument Corp., Greenwood, Miss., to supersede its Model 391.

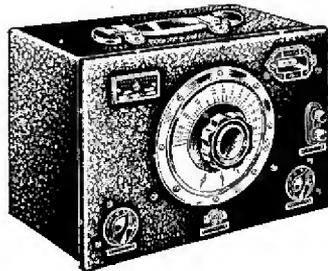
Rotary switches, completely internal resistance measuring power supply, both point-to-point and selective analysis (socket) testing methods, multi-range meter (including 6 d.b. ranges) all combine to make this instrument particularly useful to p.a. engineers.—*Radio Retailing*, February, 1936.



McMurdo Silver R9+ Tuned Antenna

The installation of the new R9+ tuned antenna will increase short wave signal volume from the present short wave receiver by from three to six times on weak signals, maintains the McMurdo Silver Corp., 3364 N. Paulina St., Chicago. In addition, this company claims improved reception equal to one to two stages of r.f. amplification ahead of the set, reduction in noise and increased selectivity.

The price is \$8.85 net, fully assembled, soldered and ready to put up in half an hour.—*Radio Retailing*, February, 1936.



Clough-Brengle Audio Oscillator

For the radio and public address field, Clough-Brengle Co., 1134 W. Austin Ave., Chicago, has brought out its Model 79 beat-note audio oscillator. This instrument generates a pure sine-wave audio voltage, variable from 0 to 10,000 cycles per second, for checking of gain and wave shape distortion in the audio system of sets, p.a. amplifiers and radiophone transmitters.

In radio receiver servicing it is used to modulate test oscillators over the entire audio spectrum. Net price, with tubes, \$51.90.

Clough Brengle has also brought out a frequency modulator unit, Model 81, which converts any standard oscillator into a frequency modulated unit suitable for operation with a cathode-ray oscillograph. Net price, complete with tubes and built in sweep motor, \$34.25.—*Radio Retailing*, February, 1936.

"Acratest" Amplifier

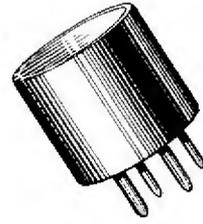
The new 15-watt de luxe amplifier just brought out by Federated Purchaser, Inc., 23 Park Place, New York City, is designed for universal application. Briefly some of the high spots are: 8 tubes in Class "A"; choice of 4 input circuits; fully shielded—low hum; all-metal tubes on floating chassis; 2 volume controls—2 tone compensators.—*Radio Retailing*, February, 1936.

Lynch Giant-Killer Cable

Manufacture of its type EO-1 cable as well as its Super Giant-Killer cable has been discontinued by Arthur H. Lynch Inc., 227 Fulton St., New York. These cables will be replaced with its new Improved Giant-Killer cable which will also be used in all factory assembled antenna kits at no change in price.—*Radio Retailing*, February, 1936.

CONVERSION RESISTOR

PLUG



Converts 2-volt dry battery sets into "Air Cell" Receivers

TWO-VOLT receivers equipped with ballast tubes for dry "A" battery operation now can be converted into "Air Cell" Receivers by means of a simple, inexpensive conversion resistor plug. Simply remove the ballast tube, plug in the conversion resistor plug in the ballast tube socket, and the receiver is ready for Eveready Air Cell Battery operation. Unlike the ballast tube which it replaces, the conversion resistor plug is inexpensive and it does not wear out. On a 2-volt dry battery set drawing 6/10 ampere "A" current, the cheapest dry "A" pack will give about 320 hours of service for a cost of \$3.20, or 1c per hour. On the same receiver, with a conversion resistor plug, the Air Cell Battery will give at least 1000 hours of service, *over three times as much*, for a cost of only \$5.95, or less than 6/10c per hour. In the life of one Air Cell Battery costing \$5.95, three dry "A" packs, costing \$9.60 would be used. Changing to Air Cell Battery operation not only saves money, it does away with the bother of frequent "A" battery purchases, and it eliminates the weakening reception which takes place as the dry "A" pack's voltage runs down.

Conversion resistor plugs are made and sold by most resistor manufacturers. Only seven types required to convert over 50 different makes and models of ballast tube receivers. Send the coupon for data sheet giving complete information.

SEND FOR FREE DATA SHEET

NATIONAL CARBON Co., Inc., P. O. Box 600,
Grand Central Station, New York, N. Y.

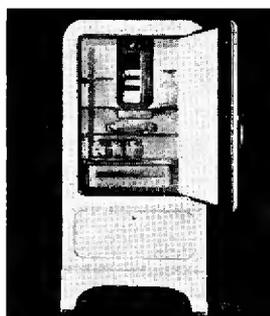
Please send me the Conversion Resistor Plug Data Sheet.

Name _____

Street _____

City _____ State _____ R.R. 2 _____

NEW REFRIGERATORS AND OTHER APPLIANCES



Grunow Refrigerators

The one-piece, rounded-top construction and flowing streamlines of the new Grunow refrigerators being introduced by the General Household Utilities Co., 2638 N. Crawford Ave., Chicago, will appeal to both the man of the house and the housewife. Doors open at the touch of toe or finger tips, interiors light automatically, shelves are tip-proof, a speed freezer gives an abundance of ice cubes—a few of some 49 conveniences of the new line.

These units have a simplicity of mechanism, Grunow states, made possible by the refrigerant Carrene which is a liquid, not a gas, under ordinary conditions. A 4-year written guarantee on the sealed mechanism may be obtained for \$5 and there is a standard 1-year warranty on the entire refrigerator.

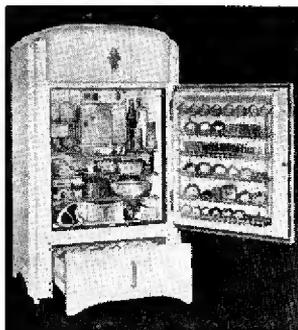
A set of accessories—20 qt. sliding fruit and vegetable conditioner, five glass covered dishes on revolving base, glass rolling pin, 1½ qt. water bottle, automatic feed egg rack and 2 quick-

out rubber ice trays—are standard equipment on the Super De Luxe models and may be had for a small charge on the De Luxe models.—*Radio Retailing*, February, 1936.

Crosley 1936 Shelvadors

Striking in their streamline design, the 1936 line of Shelvador refrigerators of the Crosley Radio Corp., Cincinnati, Ohio, add a number of features to those already incorporated.

A shelf in the door holds a set of square glass jars for keeping



leftovers. The De Luxe models have a new and improved Crisper and the "Stora-Drawer"—a drawer at the bottom of the refrigerator to hold potatoes, onions and other bulk items. It is not refrigerated—merely uses space ordinarily wasted.

The handles are set vertically and operate with a very light touch, by means of the spring lock. Quick-action ice tray re-

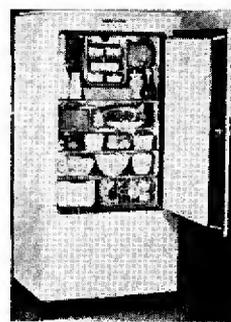
leases are a part of the six and seven cu.ft. models.

In addition to the standard reciprocating type compressor, Crosley has introduced an entirely new hermetic-type refrigerating unit. Briefly, it is a reciprocating-type unit, operated by what is known as a "Scotch yoke" instead of a connecting rod.—*Radio Retailing*, February, 1936.

"G-E Speedster" Range

Priced to sell to the mass market, a new electric range has been introduced by the General Electric Co., Cleveland, Ohio. It is named the "G-E Speedster" and boasts a new "Tripl-Oven" and Super-Speed pastry oven and Super-Fast broiler.

Other features include sliding oven shelves with safety stop at rear, Hi-speed Calrod surface units, automatic temperature control with pilot light, appliance outlet and a new type storage compartment.—*Radio Retailing*, February, 1936.



Westinghouse Refrigerators

A new line of "Golden Jubilee" refrigerators is announced by the Westinghouse Elec. & Mfg. Co., Mansfield, Ohio.

Streamline design, new adjust-o-shelf to make plenty of room for big roasts and extra shelf space for small things; triple food saver set mounted so all are instantly available, built-in crisping pan for fruits and vegetables, built-in utility basket, improved eject-o-cube ice tray, oversize froster, and a seven-point temperature selector are some of the features.

The ED or Golden Jubilee models consist of five Dulux finish refrigerators ranging in size from three up to and including seven cubic feet food compartments.

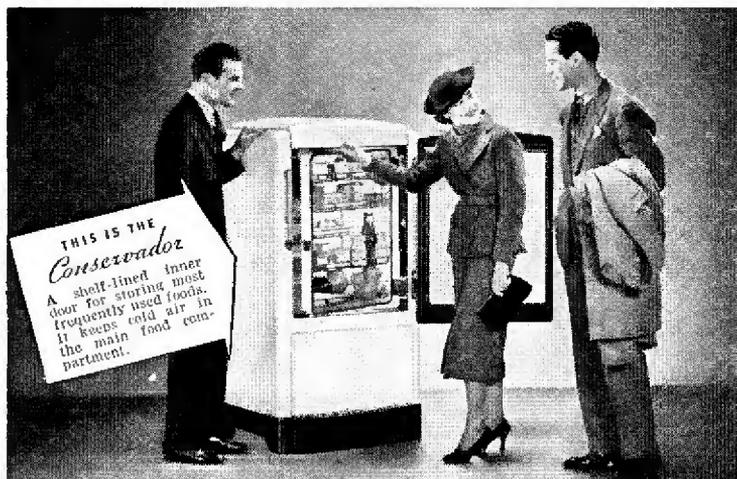
Two economy models, a chest type and two extra large models complete the line.—*Radio Retailing*, February, 1936.

ANNOUNCING!

The new line of FAIRBANKS-MORSE Conservador Refrigerators

—and a sales formula that works—

CONSERVADOR
DEMONSTRATION
+
PROSPECT
=
SALE



FAIRBANKS-MORSE Refrigerators

OTHER FAIRBANKS-MORSE PRODUCTS—WASHING MACHINES, IRONERS AND RADIOS

● "Demonstrating the new Fairbanks-Morse Conservador and the other 14 star points to a prospect means a sale—nine times out of ten!"

That's not what *we* say. It's what several hundred *Fairbanks-Morse dealers* said at a sales meeting in Chicago a few days ago.

The "Conservador" gives you an exclusive, plus-feature that your prospect can see and feel and that you can easily SELL on the basis of its true ECONOMY and CONVENIENCE merits. It gives *you* the sales advantage you have been looking for because the Conservador enables you to make the most convincing demonstration of time—and labor-saving convenience—plus *meter-beating economy*—of any refrigerator on today's market.

CASH IN ON THE FIELD'S "BEST BET"



If the Fairbanks-Morse franchise is open in your territory, it is a profit opportunity too good to pass up. Write or wire now for details. Fairbanks-Morse Home Appliances, Inc., 430 So. Green St., Chicago.

Norge 1936 Line

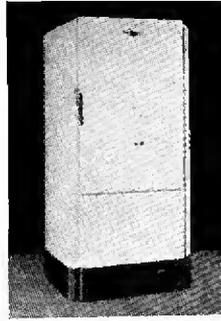
With no fundamental change in the cabinet design but with notable refinements in line, contour, features and construction, the 1936 line of Norge "Rollator" refrigerators has been placed on the market by the Norge Corp., Detroit, Mich.

The interior of the food compartment has been further improved. These units now have a sliding combination bottle and dairy rack, sliding utility basket and a small circular track holding covered glass containers.

Norge has added two new models to its line of "Autobuilt" washers and the present models have been redesigned and improved.

Improvements have also been made in the line of nine Concentrator gas ranges.

There are now six models in the Norge iron series which was first marketed in 1935. New models have been added for 1936, with further improvements in design and construction.—*Radio Retailing*, February, 1936.

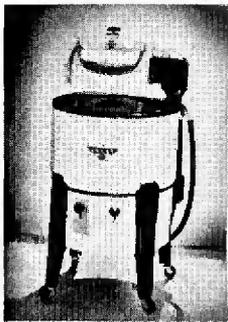


Gibson Refrigerators

A "sales engineered" line of household refrigerators consisting of six models is ready for the 1936 season according to a release from the Gibson Electric Refrigerator Co., Greenville, Mich.

There are three models in the conservatively priced standard line and three in the custom built line. The latter have the Magic Freezer Shelf. A better distribution of storage space is possible because of this freezer shelf so that the 6 cu.ft. model has more than 12 sq.ft. of shelf area. The Gibson Freezer Shelf also increases the ice cube capacity, makes for faster freezing and quicker cooling of foods, the bulletin reads.

A new feature of the 1936 models is the Gibson Guardian, a hot wire type of relay, externally mounted which furnishes an automatic overload protection for the motor which will open the motor circuit if the current becomes greater than normal and recloses the circuit after a brief interval. All models are equipped with the Gibson Hermetic Monounit.—*Radio Retailing*, February, 1936.



Kelvinator Line

Presentation of a radically improved line of twelve electric refrigerators, including models in every price range, was recently announced by the Kelvinator Corp., Detroit, Mich. In addition to new design, added conveniences and improved mechanism, the new refrigerators have for the first time, built-in thermometer and five-year protection plan providing for free replacement by the factory of any necessary parts in the compressor mechanism.

Kelvinator presents nine new electric ranges. A new development in high speed units for both surface and oven cooking eliminates the necessity of pre-heating. There are five standard and four special models.

Five electric water heaters, a new field for Kelvinator, are also announced. They are designed to minimize maintenance costs and repairs. Only three principal parts: the heavily insulated tank, the element and the thermostat, all built into one solid unit.

Another new product field into which Kelvinator has entered is that of the gas range, with the presentation of six models.—*Radio Retailing*, February, 1936.



Radio Retailing, February, 1936

Cord Set

National Electric Appliance Co., Providence, R. I., offers its "Endurance" 7 1/2 ft. cord set in a special display box of ten sets one of which is visible, being packed in a "see-thru" container.

This cord set is covered by an insurance policy insuring it against repair or replacement costs within one year. Intended retail price, 49c.—*Radio Retailing*, February, 1936.

Norge "Fine-Air" Heating and Conditioning Unit

Fully inclosed in an enamel and chrome cabinet, the new "Fine-Air" heating and conditioning unit of the Norge Corp., Detroit, Mich., will heat a 12 to 15 room house sufficiently in the coldest weather. The manufacturer claims it will deliver 75 to 200 per cent more heat from the same fire than old fashioned furnaces and boilers. Six times every hour this unit clears the air of over 95 per cent of floating dusts, germs etc., furnishing complete air conditioning.

During hot summer months this unit stimulates air circulation and is so constructed that it can be used with ice, cold water, dehumidifying coils or mechanical refrigeration accessories.

In addition, an adjustable hot water heater, which is part of the equipment, provides more than sufficient hot water for all family needs.—*Radio Retailing*, February, 1936.

THOUSANDS ARE ASKING ABOUT!

Now! **FARM POWR** for **ELECTRIC LIGHTING**, **RADIO, WASHING MACHINES, PUMPS AND OTHER FARM APPLIANCES** Priced within Reach of EVERY FARMER

It's new! Dependable! A regular replacement power supply for your electrical line performs almost any work you desire! Thousands of the big, compact Farm Powr units are being sold all over the country for home and farm use. Write for a complete catalogue for Farm Powr and other products.

Sentinel PROGRESS PRODUCERS OF FARM RADIO!

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SENTINEL RADIO CORP. 2222 DIVERSEY PKWY., CHICAGO, ILL. FREE catalogue information on Farm Powr. Name: *W. M. HOLMES* Address: *PRINCETON, N.C.*

FARM POWR

Sentinel is swamped with replies to its NATIONAL ADVERTISING

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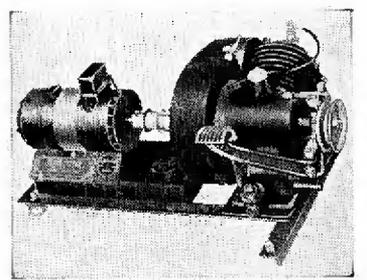
SENTINEL RADIO CORP. 2222 DIVERSEY PKWY., CHICAGO, ILL. FREE catalogue information on Farm Powr. Name: *R. L. Cannon* Address: *Bo. 17, Okla.*

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SENTINEL RADIO CORP. 2222 DIVERSEY PKWY., CHICAGO, ILL. FREE catalogue information on Farm Powr. Name: *Wm. J. Murphy* Address: *Box 7-6, Tenn.*



Model A FarmPowr Gas Engine Generator

The Modern Farm Light and Power Plant

THEY'RE pouring in—thousands of coupons from Sentinel's National Advertising featuring FarmPowr. Farmers from every State are anxious to see this new economical power unit that sells for less than \$50.00. They all want electricity. Are you going to sell it to them? FarmPowr is the biggest opportunity for sales and profit of the last quarter century.

Mail the coupon or, better yet, wire today. Get samples! Have complete information ready for your hundreds of prospects. Take full advantage of this virgin market. Get busy at once!



Model B FARMPOWR Generator only.

SENTINEL'S Complete Line of FARM RADIO

Sell Sentinel the most complete line of 2 volt and 6 volt Table and Console Models in every price bracket, developed by the pioneers in this field.

Sentinel RADIO CORPORATION "Largest Manufacturer of Farm Radio" 2222 DIVERSEY PKWY., CHICAGO, ILL.

MAIL THIS COUPON!

SENTINEL RADIO CORPORATION 2222 DIVERSEY PKWY., CHICAGO, ILL.

Please send me complete details of FarmPowr and special sample offer to dealers.

Name

Firm

Address

Distributor's Name

Mr. Dealer:-
when the excitement is over
you will find that these three
points will sell refrigerators

Outstanding size
and price value

Hermetically
Sealed Unit

The Freezer Shelf...
the only New and
Practical Innovation
in Refrigeration



SO Gibson deserves your first
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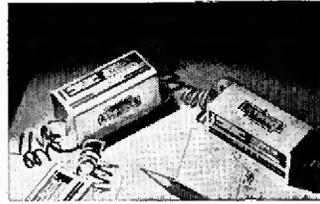


GIBSON Freezer Shelf



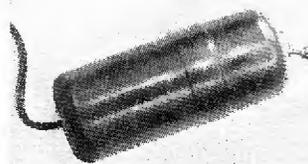
GIBSON

GIBSON ELECTRIC REFRIGERATOR CORPORATION
GREENVILLE MICHIGAN



Sprague "Tiny-Mike" Condenser

An unusually small dry electrolytic condenser of full capacity and 450 v. working voltage has just been placed on the market by Sprague Products Co., North Adams, Mass. It is called the "Tiny Mike," Type TM. The manufacturer claims that this new condenser fits into one-half the space occupied by standard condensers of equal capacity. Where economy is a factor, "Tiny Mikes" may be used to replace any cell in multiple units and where exceptionally high capacity is wanted two or more TM units may be combined in parallel.—*Radio Retailing*, February, 1936.

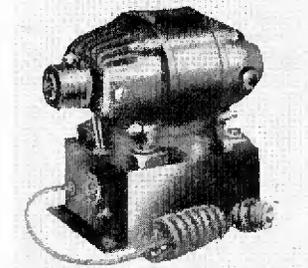


RCA RK-40 Antenna

A scientific all-wave antenna system for receivers of all types and manufacture, complete and ready to install, has just been brought out by the RCA Mfg. Co., Inc., Camden, N. J. No assembling or parts required for installation. Consists of a special doublet, transposed transmission line, antenna junction box and receiver coupling unit. \$5.50.—*Radio Retailing*, February, 1936.

Radio Silencer

A small device to enable the listener to silence at will his radio set from a remote point, called the "Ballyhoo Squelcher," may be obtained from Sunny Products Corp., 3000 N. Howard St., Philadelphia, Pa. It is easily attached to any receiver and fits in the palm of the hand. Attractively finished in baked enamel and nickel. Supplied with 16 ft. of cord. Price \$1.50.—*Radio Retailing*, February, 1936.

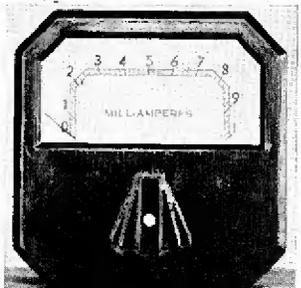


Janette Rotary Converter

A comprehensive line of rotary converters to convert direct current to alternating current is made by the Janette Mfg. Co., 556 W. Monroe St., Chicago.

These converters are designed and built especially for the type of apparatus they are to operate. There are models for radio receivers, electric phonographs, power amplifiers, public address systems, motion picture projectors, testing equipment, electro-therapeutic machines, gaseous electric signs and radios in airplanes.

Janette converters supplied for use with radios are equipped with filters designed for wave lengths of from 10 to 547 meters.—*Radio Retailing*, February, 1936.



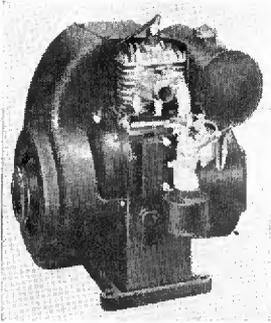
Hoyt Square Meter

The latest addition to the Hoyt meter line expresses the modern trend for an indicating instrument in an attractive case of compact design. The unusual effect of the angular scale and the large well-lighted opening gives particularly good visibility and makes the large subdivisions easily readable. The semi-flush case is of bakelite. It measures 4 1/2 in. square at the front, while the rear is circular, fitting the standard 2 1/2 in. diameter mounting hole in the panel.

This Type 573 is made in all popular d.c. ranges as a milliammeter, ammeter and voltmeter. It may be obtained from the Burton-Rogers Co., 755 Boylston St., Boston, Mass.—*Radio Retailing*, February, 1936.

Controlled Rectifiers

Ward Leonard Electric Co., Mount Vernon, N. Y., announces the development of controlled rectifiers to supply a d.c. output from a commercially constant, single phase, 110 volt a.c. line. The output voltage regulation is plus or minus 2% from approximately 1/10 to full load.—*Radio Retailing*, February, 1936.



Muter Adjustable Decade Resistance

An adjustable decade resistance unit that is accurate enough for general laboratory practice but rugged enough to withstand hard usage in the shop has just been introduced by the Muter Co., 1225 S. Michigan Ave., Chicago.

In designing this unit the Muter engineers attempted to provide the utmost in convenience by building 4 boxes, each of different resistance values. By using a combination of two of these boxes it is possible to obtain any resistance from .1 ohm to 111,111 ohms in multiples of 1 ohm.—*Radio Retailing*, February, 1936.

Onan Electric Generating Plants

A new light-weight, 110-volt, 60-cycle, alternating current generating plant has just been announced by D. W. Onan & Sons, Minneapolis, Minn. Made in standard and a light weight type for portable use.

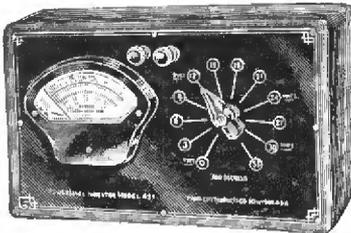
This plant is furnished complete and has a capacity of 350 watts, sufficient for ten to twelve lights, a radio or small appliances. Specially adaptable for operating sound cars and p.a. or radio communication systems.

Other Onan a.c. generating plants are offered in sizes up to 3,000 watts capacity. There are ten sizes and fifteen models.—*Radio Retailing*, February, 1936.



"Constructrad" Shortwave Kits

Attractively packed with full instructions, the Constructrad Inc., 61 Park Pl., New York City, offers shortwave kits of the following types: one tube battery, one tube electric a.c.-d.c., two tube battery, two tube electric a.c.-d.c. and three-tube electric a.c.-d.c. They range in price from \$8 for the one-tube battery kit to \$21.25 for the 3-tube electric a.c.-d.c. kit.—*Radio Retailing*, February, 1936.

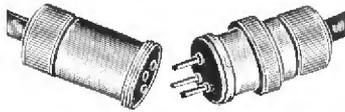


Power Level Indicator

A new power level indicator or decibel meter, Model 421, to be used chiefly for measuring power levels in lines carrying audio frequency current may now be obtained from the Radio City Products Co., 88 Park Place, New York City. It also serves as a visible indicator for the efficient monitoring of circuits in broadcasting studios, theatres and similar applications.

Outstanding features are: 10,000 ohm resistance attenuator; 500 microampere meter; range—minus 12 to plus 43 decibels; four voltmeter ranges, and uniform reference scale. The net price is \$23.35.

In kit form, for those who desire to use their own panels, the price is \$21.—*Radio Retailing*, February, 1936.



Amphenol Microphone Connector

A microphone plug embodying the latest developments of the Amphenol contacts and moulded Bakelite has been brought out by the American Phenolic Corp., 500 S. Throop St., Chicago.

The heavy brass outer shell is locked together by a threaded brass collar that holds the two sections tight. This shell may be walked on without danger of breakage or noise. Not affected by snow, rain or slush. \$2.—*Radio Retailing*, February, 1936.

Clarostat Volume Control Replacement Kit

Volume control replacements for the bulk of the more popular radio sets are met by a handy and inexpensive kit made by the Clarostat Mfg. Co., Inc., 285 N. 6th St., Brooklyn, N. Y.

The kit is offered in two types: one, made up of composition volume controls; the other, comprising wire-wound volume controls.

Each kit has five volume controls, three power switches and five 3-watt flexible resistors used as external biasing resistance.—*Radio Retailing*, February, 1936.

Multiple Section Midget Electrolytics

Extreme compactness and utility are combined in double- and triple-section midget electrolytic condensers recently made available by the Aerovox Corp., 70 Washington St., Brooklyn, N. Y. Such units provide entirely separate and distinct sections in a single cardboard container with individual positive and negative flexible leads for each section. The double-section units are available in 250 and 525 volt peak ratings, in combinations of 4-4 to 8-16 mfd. A single 8-8 mfd. triple-section unit is offered.—*Radio Retailing*, February, 1936.

FLASH

Radio Extra!

FLASH

'CORONET'— THE PERFECTED METAL TUBES —FOR GLASS TUBE SETS!

New Arcturus Scoop Increases Your Sales and Profits



ARCTURUS 'CORONET'—THE PERFECTED METAL TUBES TO REPLACE GLASS TUBES IN OLD SETS! If that isn't a "natural" in the way of a sales-booster—well, just ask the first glass-tube set owner you meet!

Think of all the sales pressure behind the Metal Tubes and figure out how the man with the old set feels. He thinks that if he can't afford a new set he's out of luck. And there are hundreds of old-set owners right in your vicinity... over 20,000,000 in the country... anxious to modernize their receivers.

ARCTURUS—and ARCTURUS ONLY—gives them the chance to modernize.

Be the first to show and offer these sensational Arcturus 'Coronet' Tubes in your territory and watch your sales and profits jump. If your distributor can't supply you at once, wire, 'phone or mail the coupon.

ARCTURUS RADIO TUBE CO.
NEWARK, N. J.

ARCTURUS 'CORONET' METAL TUBES

For new metal-tube sets, use 'CORONETS'—the perfected METAL TUBES.

ARCTURUS RADIO TUBE CO., RR-2
720 Frelinghuysen Ave., Newark, N. J.

We're interested. Rush full details on the 'CORONET' replacement line.

NAME _____

STREET _____ CITY _____

My jobber is: _____

"WESTON Instruments put more money in my pocket"



"My '665' Analyzer has served me for almost three years (since it was first introduced) and it's good for years to come. I don't have to buy a new analyzer for the metal tubes. That saves me a good sum. And it's the most dependable instrument. Look how WESTON designs and builds."

The world-famed WESTON 301 Meter — sensitive and sturdy—stands the gaff and remains accurate.

Exclusive Socket Selector—saves time—and removes obsolescence factor from the analyzer.

Quality wire-wound resistors—insure accurate readings under all temperature and humidity conditions.

Full wave bridge type rectifier—accurate over wide frequency limits.

Exclusive open-circuiting pin jacks—permit quick insertion of meter for current measurements, without disturbing circuit.

And this name WESTON is on instruments used in laboratories the world over . . . the finest procurable.

The above statement from a WESTON owner merely confirms the reports from users everywhere. WESTON Instruments cost far less because they are built to serve for years. They don't have to be replaced for every tube or circuit change. And they maintain

their dependability through years of steady, profitable service. One sure way to *save more* and *earn more* is to use WESTON'S for every need. Send for the WESTON Radio Bulletin . . . Weston Electrical Instrument Corporation, 581 Frelinghuysen Ave., Newark, N. J.

WESTON

Radio Instruments

WESTON ELECTRICAL INSTRUMENT CORPORATION
581 Frelinghuysen Avenue, Newark, N. J.

Send bulletin on WESTON Radio Instruments.

Name.....

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SERVICE SECTION

CIRCUITS of the MONTH

Flexible Testing Device Uses 6E5

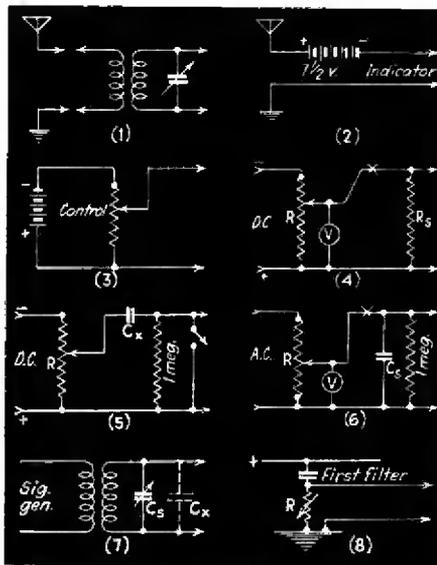
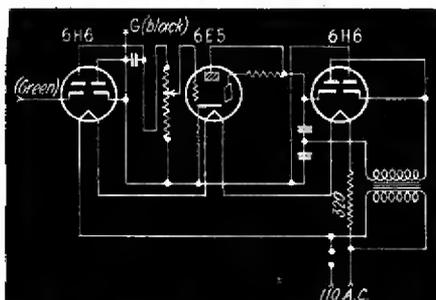
Predicted in our column "AUDIO FREQUENCY" last November, followed up by Waller and Richards' exclusive *Radio Retailing* story in December, testing devices utilizing the 6E5 combination triode amplifier and miniature cathode-ray tube are now appearing commercially. The first to make the market is Technical Appliance's new "Resonance Indicator," a vacuum-tube voltmeter comprising a 6H6 linear detector, 6E5 amplifier and indicator and 6H6 voltage-doubling rectifier, diagrammed herewith.

Loading measured circuits little, this device has a multitude of uses. Hooked to an a.v.c. lead it makes an extremely sensitive indicator, facilitating alignment. Connected across an oscillator's grid-leak, measurement of developed bias tells whether or not an oscillator is operating. Connected across a voice-coil, or from audio output plate to ground (0.1 condenser in series with indicator's input, 1 meg. resistor in parallel) usual output indications are obtained.

Other suggested tests not ordinarily possible unless the shop possesses delicate and expensive instruments are as follows:

Fig. 1—Test for antenna effectiveness. Connect a tuned circuit between antenna and Indicator as shown. Tune in a station and note effect of signal on 6E5. Calibrate on antenna known to be good and compare. Disconnect ground from antenna coil. If no variation is noted ground is obviously poor.

Fig. 2—Test for antenna-to-ground leakage. Connect battery as shown. If elec-



tron-eye closes at once this indicates low resistance between antenna and ground.

Fig. 3—Test for noisy volume-control. Connect as shown. Noisiness will be indicated by erratic operation of the 6E5 when control is varied.

Fig. 4—Test of resistors above or below values handled by ohmmeter. R_x is of known value, about the same as the unit to be checked. R is an ordinary high-value potentiometer. Adjust R until voltmeter reads 10 volts. Adjust control knob on Indicator until electron-eye just closes. Insert the unknown resistor at X and readjust R until the electron-eye just closes. Read voltmeter. Value of R_x is:

$$R_x = \frac{(E - 10) R}{10}$$

Fig. 5—Test for open, shorted or leaking condensers. Set voltage of power supply at value normal for condenser rating. If unit is open electron-eye will not change. A good condenser will cause the pattern to close and then slowly open. (For testing low values it may be desirable to use a resistor larger than 1 megohm across the Indicator.) A perfect condenser will permit the eye to return to its original condition after closing. If the switch or key

connected as shown, when closed, permits the electron-eye to change this indicates leakage.

Fig. 6—Test for condenser capacity. Connect a standard condenser at C_1 . A 1 mike unit is ok. Set the voltage divider R so that the meter reads 10 volts. Adjust the Indicator control so that the eye just closes. Insert the unknown value in place of C_1 and place C_1 at X . Readjust X until the eye just closes and read the voltage. Capacity of the unknown is then:

$$C_x = \frac{(E - 10) C_1}{10}$$

Fig. 7—Test for small mica condenser values. Use coil and condenser combination as at Fig. 1. Set tuning condenser at maximum value, adjust signal generator to just close the 6E5. Connect unknown capacitor in parallel with tuning unit and decrease setting of tuning condenser until eye closes as before. Unknown capacity C_x is equal to the capacity difference between the two settings of C_1 and C_2 .

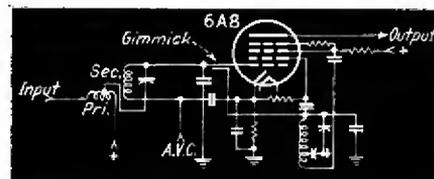
Fig. 8—Test for peak value of current flowing in first filter condenser of a pack. R is a decade resistance box or a calibrated rheostat. By means of a circuit such as that of Fig. 4 adjust the Indicator so that the eye closes at 10 volts. Without changing this setting connect the Indicator as shown and adjust R until the eye closes again. The value of current is:

$$I = \frac{10}{R}$$

Other uses will suggest themselves.

Mixer, Oscillator Coupling

On broadcast and between 1.7 and 5.5 mc. Howard's chassis 99T and 9C use straight inductive coupling between r.f.



Before It's Too Late



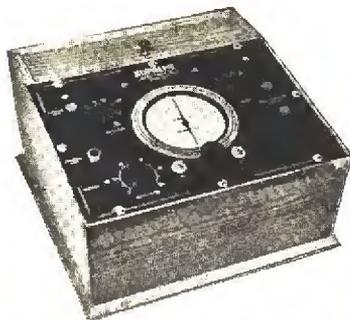
Equip Now with New
LABORATORY MODELS
**SUPREME
INSTRUMENTS**
thru an
F.H.A. LOAN

12 Small Monthly Payments
Buy Any One Instrument

18 Small Monthly Payments
Buy Any Two or More Instruments



SUPREME 385 AUTO-
MATIC LABORATORY
MODEL \$77⁹⁵

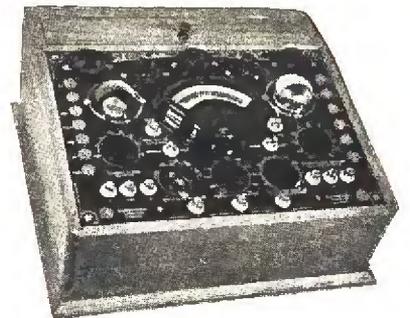


SUPREME 189 SIGNAL
GENERATOR, LABO-
RATORY MODEL \$36⁹⁵

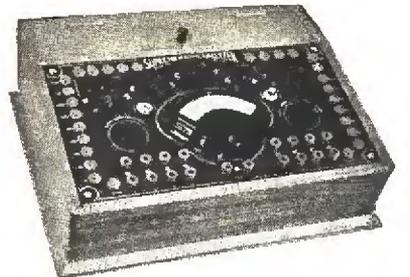
Radiomen by the thousands are grasping this opportunity to modernize their equipment with the financial help of Uncle Sam. Supreme Jobbers are overwhelmed with orders! Banks welcoming the business! It's YOUR big chance, Mr. Serviceman, to enjoy the prestige and profit of radio's most up-to-the-minute testing instruments on the easiest possible purchase plan.

**FHA MAY NOT BE EXTENDED!
EXPIRES APRIL 1st!**

Up to now there has been no definite report from Washington that the FHA Act will be extended at expiration April 1st. Don't gamble with chance—see your jobber NOW while you know Uncle Sam will assist you to pay for one instrument over a period of 12 months, and 2 or more, 18 months—at the government's low interest rate. Write Supreme direct for any information with which your jobber can not supply you.



SUPREME 89 DeLUXE
TUBE TESTER LABO-
RATORY MODEL \$45⁹⁵



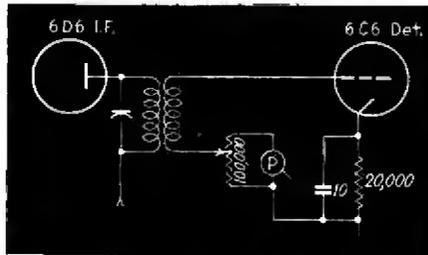
SUPREME 339 DeLUXE
ANALYZER, LABORA-
TORY MODEL \$39⁹⁵

Supreme Instruments Corp., Greenwood, Miss., U.S.A.

• Export Dept., Associated Exporters Co., 145 West 45th St., New York City, N. Y. Cable Address, LOPREH, N. Y. •

SERVICE SECTION

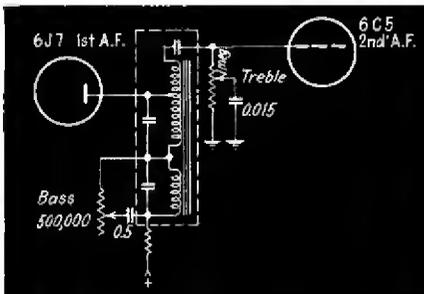
stage plate coil and 6A8 oscillator-mixer's input coil. Mixing is accomplished solely by electron coupling. But when the set is switched to the 5.5 to 18 mc. range two changes take place. The mixer input coil's trimmer also tunes the r.f. plate coil to some extent and provides some capacitive coupling as well. And, as shown in the diagram (switching omitted), electron coupling of oscillator output to mixer is aided by feeding back some r.f. from the oscillator grid to the mixer grid through a twisted-wire type, or "gimmick" capacitor. This gives the job more "sock" on extreme shortwaves.



Simple Crystal Pickup Connection

Here's the beautifully simple crystal pickup connection used in Ansley's Model U-10 phono-radio combination. Obviously, the position of the pickup would have little effect on radio reception as the detector's input circuit is untuned and essentially fairly broad.

Radio volume control is accomplished in the cathode circuit of the oscillator-mixer.



Hi-Lo Tone Booster

Stewart-Warner high-fidelity Models 1381 to 1389 have double-tuned resonator between first and second a.f. stages, one section tuned to boost low frequencies and the other adjusted to bring up highs. Each section is equipped with its own individual tone control, the bass control permitting the resonant point of the lower, shunt-tuned inductance to be shifted and the treble control simply bypassing more or less of the developed highs to ground.

If static, station hiss or station noise makes it seem desirable to cut down highs more than the treble control variation permits connect a .1, 400-volt condenser from the plate of the 6J7 first a.f. tube to the grid of the 6C5 second a.f. and shunt the high frequency tone control .015 condenser with a 600-volt .02.

In these models, incidentally, part of the resistance in the cathode circuits of the r.f. and second i.f. stages is cut out by the band-switch when tuning on shortwaves to raise sensitivity. A shunt resistor is simultaneously cut in parallel with the tuning meter to keep it on scale.

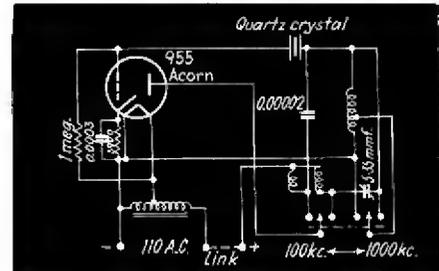
6N7 Class-B Amplifier

First announcement of the type 6N7 Class-B complete output tube (similar in characteristics to the older 6A6) with octal base and metal shell comes from Arcturus. The tube can also be used as a Class-A driver.

at 1,000 kc. if the plate circuit of the tube in which it is included is tuned to resonance at either of these points. Thus these two fundamental frequencies and prolific harmonics of each one are available. The 10th harmonic of 100 kc. is, of course, 1,000 kc. but by making the crystal oscillate on a fundamental at this higher frequency output is greater and higher harmonics are similarly stronger.

The variable trimmer shown is factory-adjusted to obtain plate circuit resonance and oscillation. It is not to be varied by the user unless the instrument requires repair.

An auto-transformer is used to light the tube and also supply high voltage to the



Crystal Calibrator

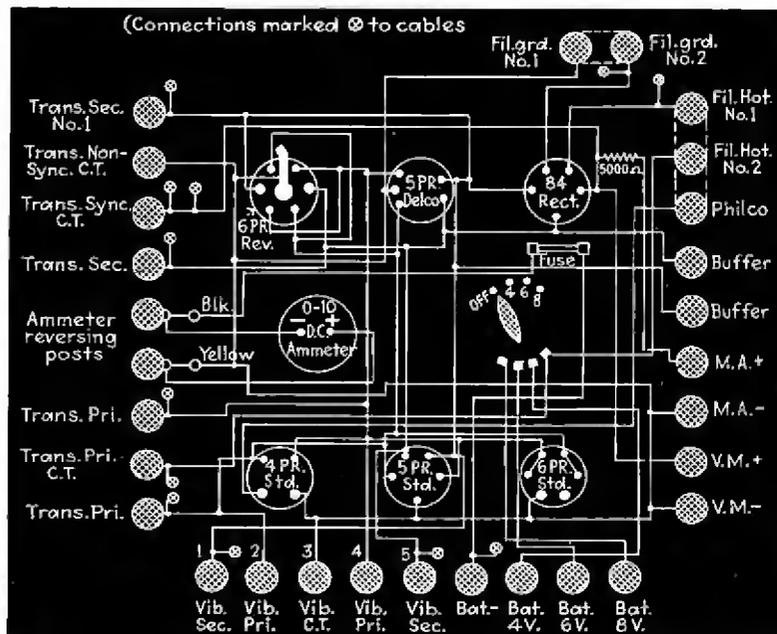
A quartz crystal may be readily ground so that it will oscillate at more than one frequency. It is, in fact, extremely difficult to make one that oscillates at one and only one point. If crystals designed for one specific frequency are wired in the grid circuit of a tube and the plate circuit of that tube tuned over a wide range oscillation will almost invariably occur at at least one other point, even though weakly.

RCA's TMV-133A crystal calibrator uses a piezo-electric crystal deliberately ground so that it will oscillate at 100 and

acorn's plate when the instrument is used on a.c., in which case the tube self-rectifies its own plate current. For d.c. use the link is removed and 90 volts of B-battery included in its place.

Quiet Tuning Switch

Quiet tuning switches in a.v.c.-equipped receivers take many forms and

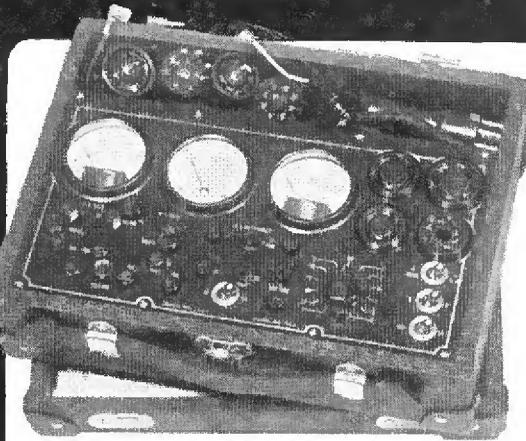


Auto Radio Vibrator and Pack Tester

Radiart (Cleveland) is responsible for this diagram of a "build-it-yourself" auto-radio vibrator and power pack tester. All parts with the exception of a special universal vibrator transformer (used externally) are shown.

Operating instructions are necessarily long and we suggest that they be obtained direct from Radiart, together with construction details.

TRY THIS TESTER AT YOUR JOBBERS



CHECKS ALL PARTS OF RADIO CIRCUITS USING GLASS OR METAL TUBES

MODEL 710-A

DEALERS NET PRICE *Only* \$16⁵⁰

This popular three meter set tester checks all parts of radio tube circuits by plugging directly into the receiving set sockets.

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- D.C. Milliammeter Scale 15-150
- A.C. Voltmeter Scale 10-140-700

Model 710-A, in Black Leatherette Case complete with all necessary connections.

Dealer Net Price.....\$16.50

Model 712-A

Same as 710-A but having Triplett moving coil Model 223 2" D.C. Voltmeter (1,000 ohms per volt).

Dealer Net Price.....\$22.20

OTHER READRITE PRODUCTS

Readrite also manufactures all types of testers used for servicing radio sets, including: Set Testers, Tube Testers, Oscillators, Resistance, Continuity and Capacity Testers, Point-to-Point Testers and inexpensive Indicating Meters.

Readrite

TESTERS AND METERS

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 Please send me more information on
Model 710-AModel 712-A
New Catalogue
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CONTINENTAL CARBON INC.

Resistors and Condensers

Over \$70 in Cash Prizes!

To accommodate the men who wished to try out their designs and perfect the details of their drawings, this contest has been extended to April 30, 1936. Remember you have only to submit an ink diagram and list of parts as described in the rules to be eligible for a prize.

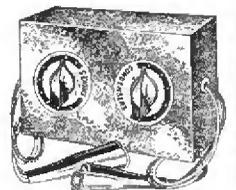
Secure an entry blank and rules of the contest from your distributor or directly from CONTINENTAL Carbon Inc. Secure the latest resistor and condenser Bulletins 103 and 104.

CONTINENTAL CARBON Inc.

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ELECTRONIC REPLACEMENT

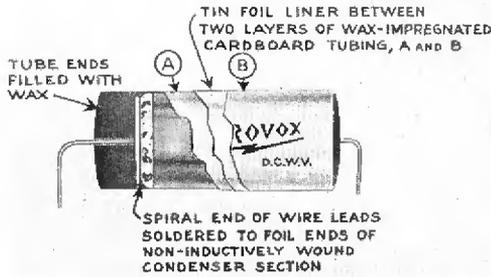
VIBRATORS

FOR 1936 THEY AGAIN LEAD THE FIELD, IN QUALITY—PRICE—AND CONSUMER SATISFACTION

Made by the World's Largest Exclusive Manufacturer of Vibrators and Vibrator Power Supplies. Ask your jobber for a copy of the new 1936 Electronic Catalog. If he cannot supply you write direct

ELECTRONIC LABORATORIES, INC., Indianapolis, Ind.

**HUMIDITY
Can't Get In!**



METAL-SEALED

Tubulars



BETTER
because . . .

Thoroughly impregnated paper section.

• Tube ends filled with wax.

• Metal-foil liner in cardboard tubing.

• Wax-impregnated cardboard tubing.

• Truly triple-sealed against humidity.

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74 Washington St. :: :: Brooklyn, N. Y.

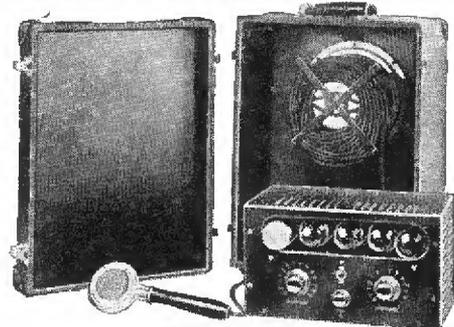
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MODEL P.A. 308 has full 8 Watt undistorted output. It is equipped with 8" dynamic speakers, has fifty feet of extension cord, and is housed in a strong leatherette covered case. Fully portable, net weight with single speaker 27 lbs.

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Price is surprisingly low. Write for details.



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WEBSTER—CHICAGO

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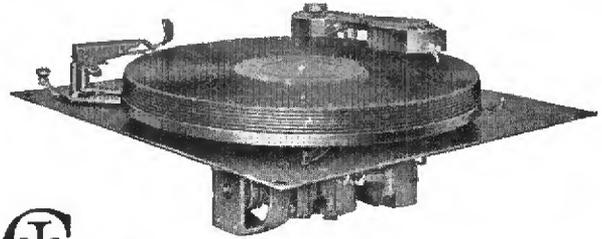
SEE YOUR JOBBER OR WRITE

The Webster Company
Section F8
3825 W. Lake St.,
Chicago, Illinois

Please send me full details on Model PA308
 Send complete accessory catalogue.

Name
Address
City State

**Save Money! Save Labor!
Get Better Results! Install**



Automatic Record Changer Units . . .

AUTOMATIC playing is all the go, necessary today in almost any radio-phonograph. And now that you can offer it to your trade at **LOW COST** it can multiply the salability of your instruments. These latest General Industries automatic playing units consist of (1) a fine precision-built two-speed FLYER Motor, instantly adjustable for 78 or 33½ r.p.m. records and complete with turntable; (2) a modern, flat-type, flexible, high-fidelity pickup, fully damped, and balanced; (3) the latest type, surefire, fool-proof General Industries automatic record-changing device. All completely assembled in one compact, self-contained unit, ready to place in your cabinets in minimum space.

TWO LOW-PRICED MODELS

Model "L," shown above, plays and automatically changes EIGHT 10-inch records or SEVEN 12-inch records; repeats last record. Model "K," for 10-inch records especially, plays and changes EIGHT records; also plays 12-inch records, changed by hand. Order samples and test them thoroughly in your own instruments. Be sure to specify exact voltage and frequency for current you use. Write us today.

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Soldering
Iron**

and a
lot
"hotter!"



Your soldering iron has only one hot tip . . . only one good "point" . . . only one hot spot. The Radolek New 1936 Radio Profit Guide has over 10,000 "hot tips" . . . over 10,000 "good points" . . . over 10,000 "hot spots" . . . 160 pages of sizzling money-savers! One complete source for all your Radio Needs! Over 10,000 Individual Radio Repair Parts . . . a complete selection of Receivers, Amplifiers, Tools, Books, Instruments and Tubes . . . everything you need . . . always in stock ready for speedy delivery to you . . . at the Right Prices. You need the Radolek Radio Profit Guide. It's Free. Send for your copy today! Solder to Radolek for a reliable Radio Supply Connection. Radolek endeavors to restrict distribution of The Profit Guide to those actively and commercially engaged in the Radio Business. Please enclose your Business Card or Letterhead.

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DETAILS ON A REAL
PROFIT-MAKING ELECTRIC
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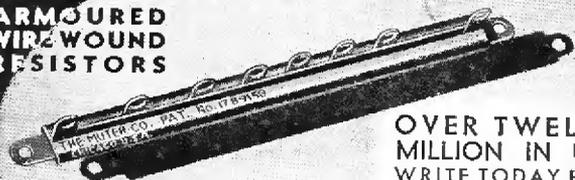
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**ARMORED
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RESISTORS**



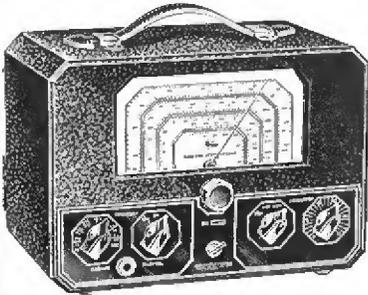
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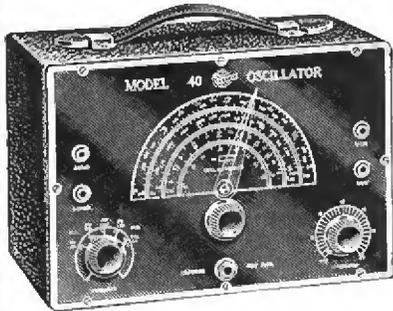
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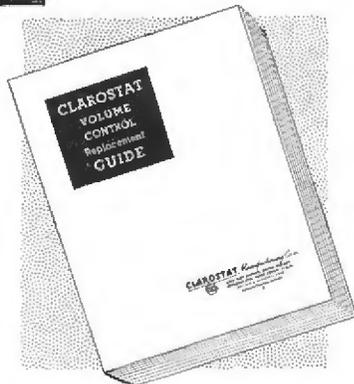
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UTAH RADIO PRODUCTS CO. OREGANS ST. CHICAGO, ILL.

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WHEN OLD VIBRATORS STOP STOP
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GUIDE NOW READY

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TEAR OUT THIS AD-PIN TO YOUR LETTERHEAD AND MAIL TO
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The Streamline AUTO ANTENNA

NEW 1936 MODEL FOR ALL CARS
Even Greater Distance—NOW—Clearer Reception

RUBBER INSULATED ABSOLUTELY WEATHER PROOF

Accumulate Mud and Water Which Would Decrease Efficiency
PROVEN ROAD TEST—ALL CLIMATIC CONDITIONS



Simple, Neat Installation
Adjustable Brackets
Retail \$2.75
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JOBBERS—Write For Profitable Deal
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VICTORY MANUFACTURING & DISTRIBUTING CO.
New Address 2021 MICHIGAN AVE., CHICAGO, ILL.
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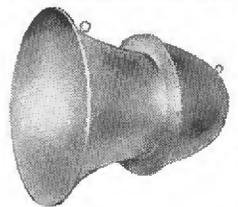
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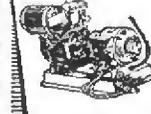
6 and 32 volt Alrechargers. 15 amps. in moderate winds, roof or post mounting. Brush and collector ring current take-off.

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AMERICA'S FINEST LINE OF QUALITY UNITS

Sound Equipment Must Stay on the Job!

Be sure yours does—by buying

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FOX ELECTRO DYNAMIC UNIT

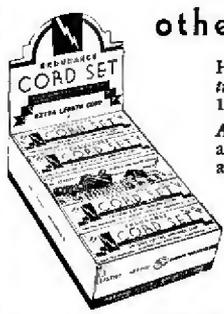
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Engineered and designed for indoor use or in small areas by

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Add this CORD SET to your other profit-making lines



Here's profitable counter merchandise—attractively wrapped in Cellophane—backed by a 12-month repair-replacement guarantee.

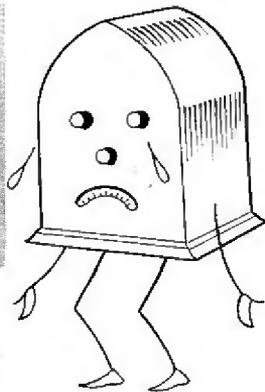
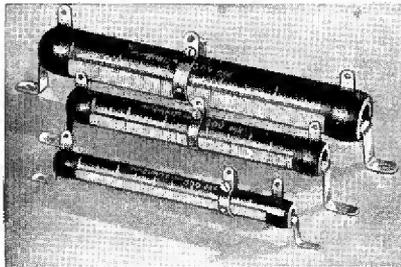
Assure fast turnover, attractive profit margin, and service-free sales by handling the Endurance Guaranteed Cord Set.

Build satisfactory, no-come-back service, and installation business with NEACO Lead-Ins, Harnesses, Push Backs and other related wire products.

Write for details of the NEACO Sales Plan and Products.

GENERAL INSULATED WIRE CORPORATION
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GORDON AVENUE PROVIDENCE, R. I.

OHMITE "DIVIDOHM"



Just the Thing for "Orphans"!

When you want an odd resistance value, or a voltage divider—especially in servicing discontinued models—use "DIVIDOHM." They save writing the factory or scouring the town for a replacement part. Every service man's kit should contain at least a few of the most commonly used values.

The famous OHMITE vitreous enamel coating is marked with a patented "percentage-of-resistance" scale with which approximate value can be easily determined. Any practical number of adjustable lugs may be used without shorting out much resistance. Made in six sizes: from 25 through 200 watts; resistance values through 100,000 ohms. Ask your jobber or write for Catalog 14.

OHMITE

MANUFACTURING COMPANY
Manufacturers of Resistors of All Types
4845 Flournoy St., Chicago, Ill.

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Octal Socket Jig

To speed up the drilling out of un-punched holes in octal sockets so that analyzer plugs will fit I have made a jig of heavy sheet iron. It is circular, same size as the average chassis cut-out, and has holes drilled in all eight pin positions

generally suitable, exact condenser value depending upon the inductance of the choke used. Don't get the resonant frequency too low or all you will amplify is motorboating. Careful filtering of plate and grid supply leads is necessary because of the high gain involved and resistor-capacitor filters in leads are indicated for this purpose. The auxiliary tube's output may be cut down much below its maximum possibilities as full output would simply overload the power stage. I use only about one-tenth of the possible gain in most jobs.

As indicated, the two amplifier outputs are not in phase. This does not appear to affect performance. It would be possible to put outputs in phase by introducing the output of the 6F7 into one grid of the power stage push-pull amplifier and the output of the original audio channel into the other. This would require an additional resistor and coupling condenser, however, and I have not found it necessary.

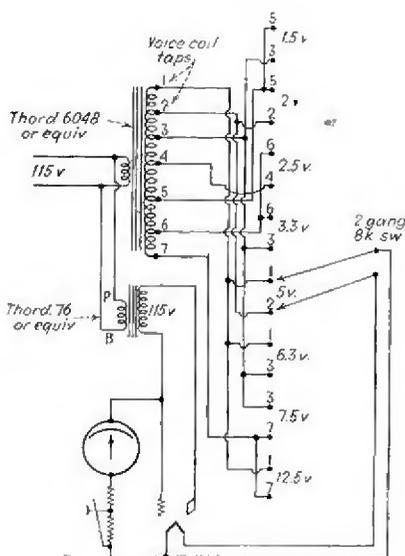
cial equipment requiring a.c. voltage variable from .5 to 12.5 volts in small steps. It appears to be able to "take it" on reasonable loads for extended periods and I have used one for 6 weeks following failure of an old filament transformer originally used here for testing.

A Thordarson type 76 single tube-to-magnetic speaker or equivalent transformer makes a swell 1-to-1 job for any work where 110 to 120 volts a.c. is required and it is desirable to insulate equipment from the supply line, as in a capacity tester, or for the high potential supply of a tube tester.

The illustration shows both units hooked up as a supply for a tube-tester. Terminal values, taken on a Weston 476 a.c. voltmeter at 115 volts are as follows. Copper oxide meter measurement will show slightly higher values:

Terminal	Volts
1 to 2	5.8
1 to 3	6.6
1 to 4	7.2
1 to 5	8.2
1 to 6	9.2
1 to 7	12.5
2 to 3	.5
2 to 4	1.2
2 to 5	2.4
2 to 6	4.2
2 to 7	8.3
3 to 4	.6
3 to 5	1.8
3 to 6	3.5
3 to 7	7.8
4 to 5	1.1
4 to 6	2.8
4 to 7	7.3
5 to 6	1.9
5 to 7	6.2
6 to 7	4.4

The diagram shows recommended switching and should be self-explanatory.



How To Rewind Orthovox Speakers

By H. H. Beech

The Utah Orthovox permanent magnet type speakers used in recent battery receivers present some servicing difficulties not found in the ordinary magnetic speaker. The following directions should be observed if the repaired speaker is to equal that of a new one of the same type.

Since the "B" current flows through the speaker windings in most installations, the trouble most commonly encountered is either burned out (open circuited) coils or weakened magnets. The procedure for removing the coils is as follows: First, remove the unit from the cone by loosening the supporting screws; the drive pin can be disconnected from the apex of the cone by holding a hot soldering iron to the soldered connection and at the same time pressing down slightly on the magnets. After the unit has been removed, the aluminum cover plate is taken off and the magnets are pulled away from the pole pieces. If the service man has had but little experience in repairing magnetic speakers, the magnets should

be labeled "Right" and "Left" so that the unit can be reassembled in its original form (the markings "O" go to the rear of the unit).

Before removing the brass plate or loosening any of the screws, a small rubber band, or sewing thread, should be passed under and around the laminated pole pieces. If this precaution is not observed considerable difficulty will be encountered in getting the pole pieces back into their slots after the rewinding has been completed. Next remove the screws (nuts in some models) holding the brass plate, insert a thin edge between the plate and the pole pieces and carefully pry the laminations from their slot. Now remove the two flat-head screws at the top (outside) of the unit and the four armature-supporting and adjusting screws. The pole pieces should be removed from the remaining brass plate as outlined above, being careful not to disturb their alignment.

Before the winding can be removed it is necessary that the "U" shaped armature supports be unsoldered at the top (the unit is bottom up) end. These should not be entirely removed; merely melt the solder at one end and bend back enough to allow the bobbin to be removed.

Before the winding is removed from the bobbin, the paraffin is melted by holding the coil close to a flame or heating it in an oven. Sometimes the break is on the outside and can be repaired without replacing the entire winding. If a new coil must be wound, mark the direction of the old winding, the position of the bobbin on the armature and how full the bobbin is wound with the fine wire.

A convenient source of wire supply is to unwind a new audio transformer, the wire being of the same size. The use of burned-out transformers is not recommended as the insulation is likely to be damaged.

The easiest method of determining the amount of turns required is to count the layers taken from the transformer. For a 2,000-ohm impedance about 6 layers are required from a standard replacement transformer. If the winding is for push-pull circuits three layers are wound, a tap is brought out and then the remaining three layers are wound in the same direction.

After the winding has been completed, it should be tested for continuity and then placed in boiling paraffin for about five or ten minutes. Swish the coil around so that the wax will penetrate the windings.

Once the unit is reassembled, the armature should be centered before the drive pin is soldered to the apex of the cone. This is done by adjusting the tension screws at each end of the armature support. After the unit is remounted on the cone tighten up all supporting screws first and then hold a hot soldering iron to the solder on the metal apex of the cone allowing the drive pin to find its normal position with regard to the cone.

The above also applies in a general way to the repair of all kinds of magnetic and permanent magnet speakers. I have repaired dozens of both types and can tell no difference in tone or volume between the repaired speaker and a new one.

Flexible Filament Supply Uses Line-to-Speaker Transformers

By Al Beers

A Thordarson type 6048 or equivalent 500 ohm line-to-speaker transformer makes a fairly husky filament transformer for spe-

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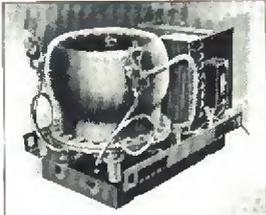
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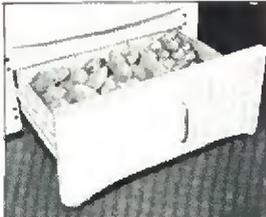
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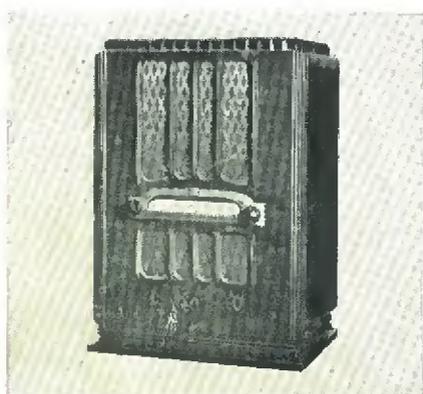
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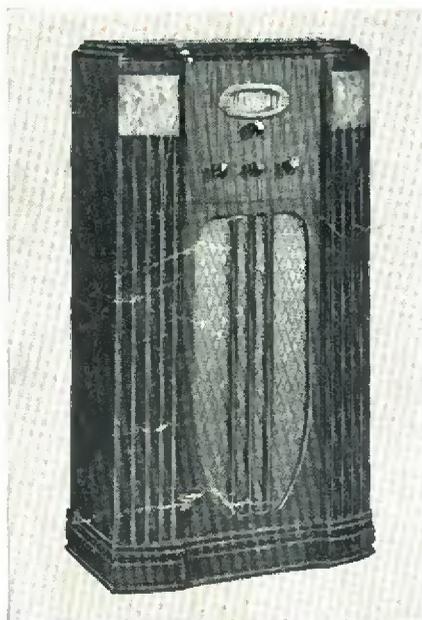
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