

RADIO TODAY

Auto-Radio Number

**RADIO
TODAY**

FEBRUARY

In Two Parts—Part One

SELL AUTO-RADIO IN A BIG WAY!

Here's your biggest unsaturated market.
Three cars out of four have no radio.

Sell men-drivers, women-drivers, the "young crowd", new-car buyers, old-car users, new-car dealers, used-car dealers, car distributors, garagemen, truck-drivers, service-station men. Get ready now for your Spring drive.

Let 'em ALL know that YOU are headquarters for auto-radio in your town.

O. H. Caldwell
Editor.

*The
New
1938*



TOUCH TUNING RADIO

The Sensational Model F-96

Now Smashing
Through to Still
Greater Success

These are the Features
THAT SHIFT YOUR
SALES INTO HIGH

G-E TOUCH TUNING

The highest development in automatic tuning. Just press a button—that's all. There are separate buttons for your favorite stations—all at your fingertips. A touch of your finger and there's your program—perfectly tuned.

G-E LOUVER DIAL

It's "as easy to read as a ruler"—each scale calibrated in a straight line—a separate scale for each band.

G-E VISUAL TONE AND VOLUME CONTROLS

Enable even a child to adjust the receiver, visually, to the most desirable level for a station or program.

G-E TONE MONITOR

A radio circuit, of radical, new design, that corrects tone distortion. Enables you to distinguish the full range of notes of every instrument and voice.

G-E "Custom-craft" CABINETS

Superb custom craftsmanship in details of construction, acoustical design and selection of rich, rare woods and veneers.



GENERAL  **ELECTRIC**



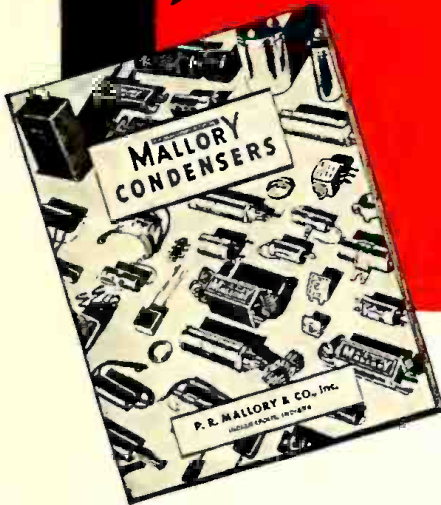
What will Mallory-Yaxley do next?

Here's
Answer No. 1

... A Complete Line of

P. R. MALLORY & CO., Inc.

MALLORY Condensers



Now! Mallory offers a *Complete Condenser Line*... with all the features that have made Mallory Condensers famous. Surge-proof! Humidity-proof! Universal mounting! Smaller sizes! Easier installation! See your Mallory-Yaxley distributor for a copy of the new Mallory condenser catalog which gives complete information on all the new condensers described below.

NEW Tubular Papers

The addition of four new TP condensers with 1,000 volt ratings, plus a number of new units in the lower voltage range make the Mallory TP line more attractive than ever.

NEW Padding and Trimmer Condensers

All are made with the finest India Ruby Mica, and are designed to prevent drift, or change with temperature or moisture. Adjusting screws are equipped with fine threads for accurate setting. Available in four general types—both single and dual units, Bakelite and ceramic bases.

NEW Auto Radio Types

Condensers, r. f. chokes and other noise suppression condensers—built on the basis of Mallory's experience as the pioneer manufacturer of vibrators and vibrator power supplies. Not a single make-shift adaptation among them—each is specifically built for its intended applications.

NEW Transmitting Condensers

Two new types, incorporating a new impregnating compound which has many advantages over the usual wax or oil impregnations. The compound has a high dielectric constant and insulation resistance that make possible the relatively small sizes of these condensers. These high voltage condensers are ideal for use in radio transmitter power supplies and for heavy duty power amplifier service.

NEW Mica Condensers

Compact, mechanically strong and moisture-proof. Made of the finest grade of clear India mica.

NEW Cased By-Pass and Uncased Condensers

An example of the completeness of the Mallory line is the introduction of new type CB cased by-pass condensers and type UB uncased dielectric filter condensers.

NOW! WHAT WILL MALLORY-YAXLEY DO NEXT?

Watch for further important announcements!

Use

P. R. MALLORY & CO. Inc.
MALLORY
REPLACEMENT
CONDENSERS... VIBRATORS

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

Use

YAXLEY
REPLACEMENT
VOLUME CONTROLS

Smooth Sailing



It's always "smooth sailing" when you sell Sylvania. For Sylvania is one tube line that protects your repeat business.

To keep your business on a solid, "repeat sales" foundation, you must always give customers full satisfaction . . . their money's worth on every item they buy.

One of the surest of all customer-satisfiers is Sylvania radio tubes. The scores and scores of tests which Sylvania's undergo during manufacture is positive insurance against "duds". And for your added protection, Sylvania tubes are sold with a 6-month written factory guarantee packed right in the carton.

For a smooth-sailing, *repeat* business, keep your tube customers satisfied—sell them Sylvania's!

SYLVANIA

SET-TESTED RADIO TUBES

HYGRADE SYLVANIA CORPORATION ALSO MANUFACTURES THE FAMOUS HYGRADE LAMP BULBS.



THEY'LL
Marvel
 at this New
**RCA VICTOR
 ELECTRIC TUNING
 VALUE!**

\$69⁹⁵*

'NUF SAID!

RCA Victor Electric Tuning Table Model 87T-2. Brings Electric Tuning to the thousands who've wanted it—but couldn't afford it! Just push a button—and any one of six favorite stations is tuned as quick as a wink! In addition to Electric Tuning, this instrument provides such other extra value features as famous Magic Eye, RCA Metal Tubes, Straight-Line Dial, Beauty-Tone Cabinet, Phonograph Connection, and many more. A sales WOW with a capital "W"!

FOR the first time—RCA Victor Electric Tuning—in a table model! Here's a spectacular new value that will bring you more and greater sales and profits—a radio set with the year's most sensational development that sells for only \$69.95*.

(*F.O.B. Camden, N.J., subject to change)

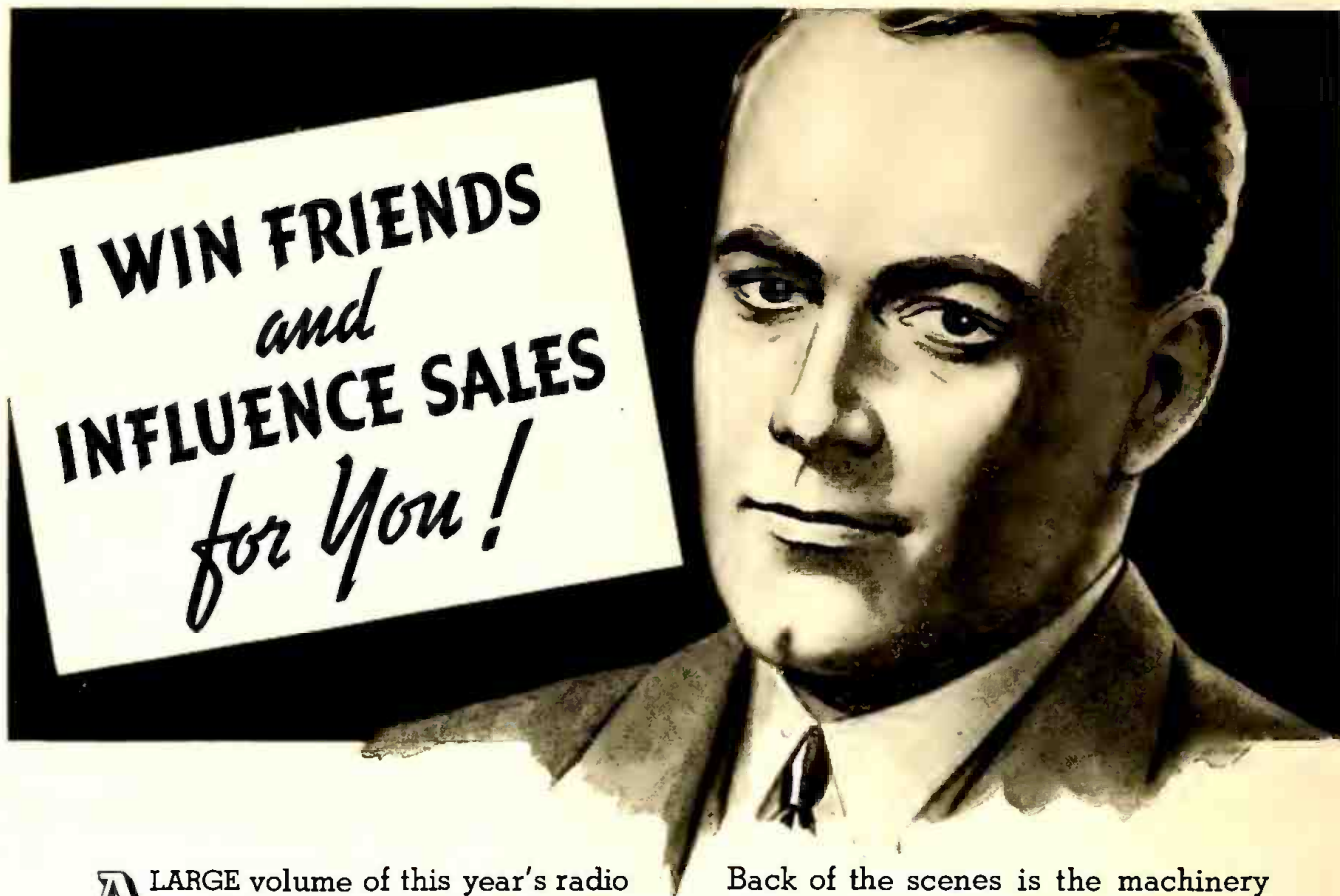
RCA presents the "Magic Key" every Sunday, 2 to 3 P.M., E.S.T., on the NBC Blue Network



RCA Victor

A SERVICE OF RADIO CORPORATION OF AMERICA • RCA MFG. CO., INC., CAMDEN, N. J.

OVER 300 MILLION RCA RADIO TUBES HAVE BEEN PURCHASED BY RADIO USERS. IN TUBES, AS IN RADIO SETS, IT PAYS TO GO RCA ALL THE WAY



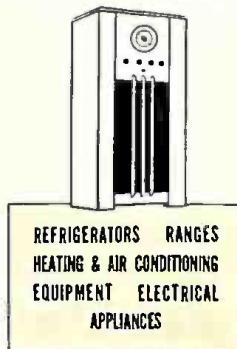
I WIN FRIENDS
and
INFLUENCE SALES
for You!

A LARGE volume of this year's radio purchases will be made by people with whom I stand high. I can influence many of them in your favor. That's why it should be important to you to know me better . . . to know all the advantages you get when I am working with you and *for* you.

Millions of families have bought automobiles, refrigerators, home laundry equipment and other electric appliances on the Commercial Credit Company time payment plan. They have first hand knowledge of the fair and friendly treatment they get. When you offer them this same service in the financing of a radio you have their confidence and good will from the start.

Back of the scenes is the machinery that is of vital importance to you . . . careful credit investigation to prevent risky sales—speedy remittance of your money—an effective but frictionless collection system that relieves you of worry or embarrassment.

With my help on the credit and financial side, you will be free to concentrate on selling and merchandising. That's your main job. That's where your profits come from.



I'm the local manager for Commercial Credit Company. I have headquarters in 205 offices in the principal cities of the United States and Canada. . . . Call on me freely for information and help.

COMMERCIAL CREDIT COMPANY

COMMERCIAL BANKERS
 CONSOLIDATED CAPITAL



HEADQUARTERS: BALTIMORE
 AND SURPLUS \$64,000,000

SERVING MANUFACTURERS, DISTRIBUTORS AND DEALERS THROUGH 205 OFFICES IN THE UNITED STATES AND CANADA

***THE TUBE WITH THE
BEST-KNOWN NAME —***

PHILCO

***— is the EASIEST
TO SELL!***

OVER TEN MILLION PHILCO RADIOS have been sold. No other radio in all the world has ever remotely approached that record! Every time anyone switches on one of these sets . . . changes a station . . . increases or decreases the volume . . . the name PHILCO is bound to catch his eye.

To these millions . . . and to the added millions who know PHILCO through newspaper, magazine and broadcast advertising . . . PHILCO is the best-known, most important name in radio. That's why PHILCO on a tube carton means an instant sale. They know that name, respect that name . . . and have added respect for the store that gives them the tube with the name that means most to most people . . . PHILCO!





MEANS PROFIT TO YOU!

...because it offers

SALES-MAKING PROMOTIONS!



MAILING CAMPAIGNS that bring more customers into your store—colorful window displays that attract the attention of prospective customers—promotional pieces that identify you as a reliable RCA Dealer—these are only a few of the sales-aids now available to RCA Radio Tube dealers.

Add to this the RCA Radio Check-Up Program—a plan originated and developed by RCA—one which has brought thousands of dollars to alert dealers all over the country—that's why RCA means profit to you.

The window display shown above is lithographed in eight attractive colors and is the first in the New 1938 Window Display Service.

Ask your local RCA Distributor how you can obtain this new service FREE—it will pay—in profits.



OVER THREE HUNDRED MILLION RCA RADIO TUBES have been purchased by radio users ...in tubes, as in radio sets, it pays to go RCA All The Way.

RCA presents the "Magic Key" every Sunday, 2 to 3 P. M., E. S. T., on the NBC Blue Network



Radiotrons

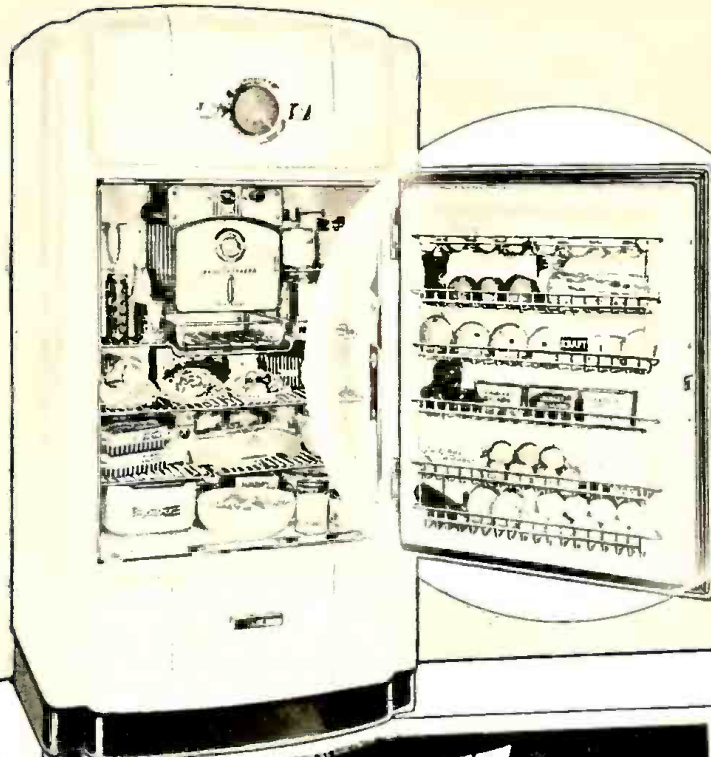
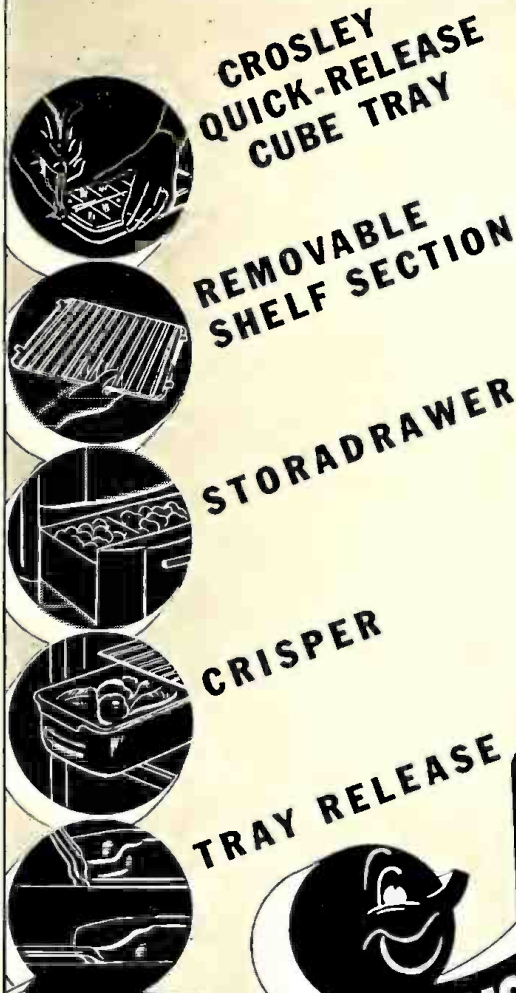
RCA MANUFACTURING CO., INC., CAMDEN, N. J. • A SERVICE OF THE RADIO CORPORATION OF AMERICA

CROSLEY SCORES AGAIN!

THE
GREATEST

CONVENIENCE

STORY EVER TOLD



SPOTLIGHT
FEATURES

THIS MUCH MORE
IN A

SHELVADOR

None but the Shelvador electric refrigerator provides such an array of time and labor-saving features—features that spell CONVENIENCE to the housewife . . . that tell her convincingly "The Greatest Sales Story Ever Told"—THIS MUCH MORE IN A SHELVADOR . . . that will sell for you many more refrigerators than you've ever sold before.



THE CROSLEY RADIO CORPORATION, CINCINNATI
POWEL CROSLEY, Jr., President
Home of "the Nation's Station"—WLW—500,000 watts—70 on your dial.

CROSLEY SHELVADOR



HARRY BOYD BROWN
National Merchandising
Manager of Philco

A RADIO BUSINESS THAT REACHES ITS PEAK IN THE SPRING MONTHS

OVER 20 million automobiles—*not equipped with radio*—are in operation in the United States today. And it is estimated that 2,500,000 new cars—*not equipped with radio by either car manufacturer or car dealer*—will be delivered to buyers in 1938.

Automobile Radios—a tremendous, unsaturated market for Philco radio dealers! A business that reaches its peak in the Spring months—retail sales that certainly help keep the radio dealer's business on a steady even keel the year around.

Better still, Philco Auto Radios sell Philco Home Radios, and Philco Home Radios, in turn, bring auto radio sales. One hand washes the other. And remember, the American public has bought over 10 million Philco Home Radios. This means millions of satisfied Philco Home Radio owners that constitute a vast, nation-wide market for Philco Auto Radio.

And now—*only \$24.95 for a PHILCO Automobile Radio!* The model 920—quality and beauty—without question the greatest auto radio value ever built. Remarkable power! Superb clarity of tone! Amazing performance! The advertising leader, the big volume number of Philco's marvelous new auto radio line for 1938.

The public demands performance as well as price in auto radio today. And the Philco model 920 gives you *real sensitivity*—remarkable ability to get stations. And also *real selectivity*—which means no interference—no cross talk. A 5-tube auto radio with 3-Gang Condenser—Electro-Dynamic Speaker—Full Wave Vibrator—Automatic Volume Control. Furthermore, no Spark Plug Suppressors are necessary, and installation is easy, speedy, surprisingly simple. *No one on earth but Philco could build this radio to sell for \$24.95.*

Then when it comes to "selling up"—Philco's new auto radio line fits the selling situation perfectly. Four splendid models—priced in easy logical steps from \$24.95 to \$59.95—added features—added beauty—more power—more distance range—and still more marvelous performance.

Every Philco Auto Radio model has its own properly matched and properly tuned Philco aerial in *any type* you need for any model car. Cowl aerials, under-car aerials or rooftop aerials—each designed, matched and tuned to the particular Philco model. *And for those radio dealers who do not have the facilities for installation, Philco covers the United States with over 1500 Authorized Service Stations to install and service Philco Automobile Radios.*

Harry Boyd Brown

PHILCO

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RADIO TODAY

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OPTIMISM & CONFIDENCE, INC.

★ Fairly certain it is that American business intends to brush past such pessimists as are still concerned with a recession. Business conditions rest delicately upon a national state of mind, for one thing, and recent surveys are indicating that this state of mind has emerged from the dumps.

George Gallup of the American Institute of Public Opinion has checked up on the mood of the population and has found it jolly: 78 persons out of every 100 say that they expect business to be better within the next six months. Last December, only 58 were similarly optimistic.

Colby Chester, General Foods chairman, has also charted some opinion. He surveyed 40 large manufacturers and two-thirds of them said yes, they expected an upturn this year.

Radio, blessed with a string of new products and assorted new developments, may herewith take a tip from others who are willing to exhibit some cheer.

URGE REPEAL OF RADIO EXCISE TAX

★ A vigorous campaign in Congress for the repeal of the Federal radio excise tax of 5 per cent now imposed on all receiving sets (except auto-radios, which are taxed as auto accessories) is being conducted by Bond Geddes, executive vice-president of the Radio Manufacturers Association.

Enlistment of the entire radio trade, distributors, dealers, servicemen, and broadcasters, is being undertaken, to write letters to their Congressmen and to the members of the House Ways and Means Committee and the Senate Finance Committee, addressed at "U. S. Capitol, Washington, D. C." urging repeal of the radio tax by virtue of the great public service rendered by radio.

NINE-TENTHS OF CAR RADIOS INSTALLED LOCALLY

★ Auto-radio sales are going up each year, and for the twelve months of 1937, probably 1,800,000 auto-sets were sold and installed. A round million of these sets were sold through the automobile trade, along with the cars, but only a small part of this million, about 15 per cent, were actually installed at the factory, as shown by the adjoining chart. The other 85 per cent, or 850,000 auto-sets, were installed by auto distributors and dealers in the territory where the eventual sale was made! Here is a big installation business which local radio men can get—in addition to the "separate-sale" market of 800,000 auto-radios sold to car-owners for "after-installation" on their cars.

Last year nearly 3,000,000 cars were sold without radios, and many of these owners are prime prospects for auto-radio now in 1938 when people may be making less overlay for new cars, but want to modernize their old ones.

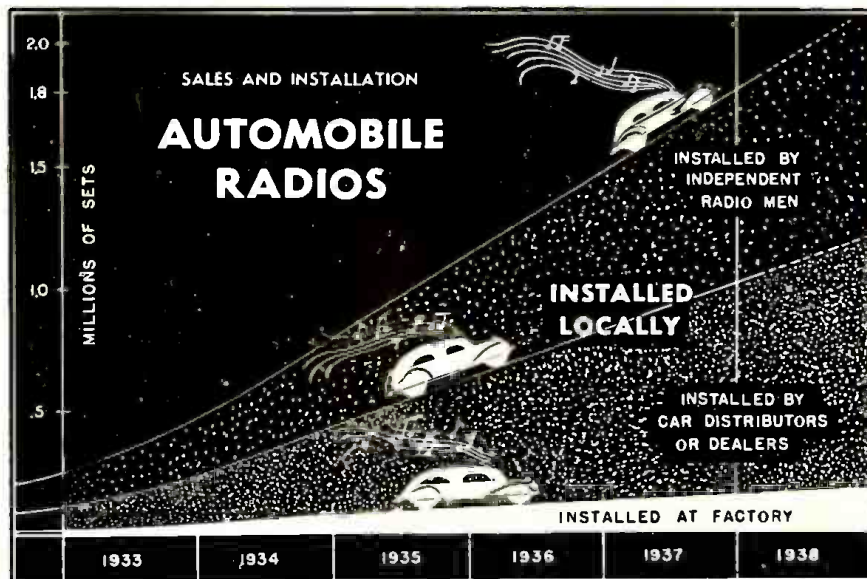
Car-owners, men and women;

young people; car distributors; used-car dealers; garage operators, repairmen and gas-station men, are all prospects to sell to or work with—in going after this rich auto-radio market.

TO HELP SELL UP— SEE PART TWO

★ With a number of new low-priced table models announced at this time, RADIO TODAY feels that these sets open up an additional market as "extra radios" in the home.

But every home, we think, should have at least one quality console to reproduce the great music on the air. To aid dealers in shaping up their selling arguments for both quality consoles and extra small radios, the editors have prepared the material which appears as Part Two of this issue, designed to show that while every home can use extra small sets, only a quality console will enable the family to enjoy fully the great programs of modern broadcasting.





Ralph J. Cordiner, who becomes new manager of GE's appliance and merchandise dept.

FLOURISH FOR FARM RADIO

★ At least one gentleman emerged from 1937 on top of the heap. The farmer enjoyed bumper crops, strong prices and considerable cash benefit from Washington. Dept. of Agriculture estimates that the total income to U.S. farmers during the year was \$8,500,000,000—the largest since the peak in 1929. The figure in 1936 was \$7,920,000,000.

Of the 6,800,000 farms in the country, about 4,000,000 are still without radios. There, declares Philco's Sayre M. Ramsdell, "is the biggest single market for radio in the United States."

Meanwhile, the broadcasters fenagle for more farm interest. Since Jan. 3, the National Farm and Home Hour on NBC has been a coast-to-coast feature, adding 15 stations on that date, and bringing the total to 93.



Clarostat's Vic. Mucher, chairman of RMA's committee on variable resistors, shows a trick or two to H. L. Dalis and Adolph Langer, of H. L. Dalis, Inc.

FINGERPRINTS FOR SALESMEN

★ Metropolitan areas where radio and refrigerator dealers cluster thickly, are up against the condition by which outside salesmen sign up with more than one dealer. In a Brooklyn case, a single salesman was found to have three regular weekly drawing accounts with three different dealers, and was putting his "sales" through whichever dealer offered him the highest compensation on the particular article!

So serious has this racket become that dealers are now attempting to work out a system of salesman identification with the finance companies. By this plan, each salesman will carry a card with his photograph stamped on it, while his current dealer affiliation, personal record, etc., will be filed in a central bureau where any dealer may consult it before taking on a new man.

"If identification portraits do not work, finger-printing of salesmen will be the next step," declare the harassed dealers.

APPLICANT TEACHERS' VOICES RECORDED

★ Large-scale use of recording machines has made its appearance in a new branch of the educational field. In New York City, the oral examinations which are given applicant teachers will all be recorded this season. City education officials recently voted \$1,500 to experiment with the apparatus, and according to Dr. Joseph K. Van Denburg, chairman of the Board of Examiners, recorded voices of all applicants will be filed along with other Examiner's data.

Stunt is expected to improve speak-



Ros Howard, who took a trainload of RCA Chicago dealers to Hollywood, is welcomed by Jack Benny.

ing habits of teachers. Also, officials will be in position to confront applicants with actual reproductions of their voices. The plan is to use a separate record for each applicant, both men and women.

This announcement from New York points directly to the importance of recorders in any spot where the cultivation of the human voice is concerned.

BROADCASTS IN FRONT

★ Each day at noon, pedestrians in Miami, Fla., are attracted in large numbers to novel broadcasts in front of radio dealers' stores. The stunts are arranged by H. A. ("Herb") Brennan, of Major Appliances, Inc., RCA distributors.

In a search for something entirely different to attract attention to 1938 models, Mr. Brennan arranged with the local NBC station to spot outside broadcasts directly in front of where dealers were displaying the new sets. Staged at a time when many business folk were having their lunch hour, the device stopped hundreds of prospects at a time.

"MAGIC-EYE" IN COLORS!

★ An ingenious cathode-ray tuning indicator which indicates resonance by means of different colors, is covered by U.S. Patent No. 2,098,231, issued Nov. 9, 1937, to Allen B. Du Mont, Upper Montclair, N. J. This latest indicator calls for a plurality of fluorescent screens glowing in different colors as the cathode-ray impinges upon them. The cathode-ray beam, swung over different sections of the screen by deflection plates, indicates resonance or other desired function in different colors.

VELLY FINE MARKET

★ Japanese bombs are not the only items in the Chinese skies. There are plenty of radio signals, too, now that broadcasting has become such an important part of the battle.

Reports received from the Far East by Walter S. Cranmer, Philco export manager, indicate that radio interest has taken a leap among the Chinese masses. In spite of the uproar, the receiver market flourishes. Newspapers are censored, so that broadcast news is at a premium, and propaganda is scattered abundantly about. The population has become sharply radio-conscious.

When the gunfire quiets down, some 80,000,000 Chinese will be radio prospects, according to Mr. Cranmer. The total population is about 400,000,000, but only about 20 per cent have sufficient purchasing power.

PARTS SHOW, CHICAGO, JUNE 8-11

★ Especial attention is called to the fact that the 1938 National Radio Parts Trade Show will open at the Stevens Hotel, Chicago, Wednesday, June 8, and close on Saturday evening, June 11. The show period does not include a Sunday, as in the past. This arrangement was agreed upon by the directors to enable distributors, representatives, exhibitors, and others to utilize Sunday for travel, so that they can be back home for business Monday morning.

The Exhibition Hall in the Stevens will be laid out as a city, to be known as Radio Parts City. Each street will be named in honor of a deceased outstanding figure in the development of radio, such as Marconi, Ampere, Edison, and so on. Over 100 booths have already been contracted for.

INTERNATIONAL RADIO HUDDLE

★ At Sydney, Australia, come April 4, there opens a world-wide radio convention "to discuss all phases of radio engineering." Unlike other events of this kind, where allocation matters have been the chief topic, this convention will concern wave propagation, telecommunication, broadcast transmission, broadcast receivers, sound projection, electro-medical, television, general and allied subjects.

The huddle is sponsored by the Institution of Radio Engineers (Australia), of which Sir Ernest Fisk is the president; sessions will be held at the University of Sydney.



Motorola "chefs" at recent jobber convention. Left to right, behind the shrubbery, Walt Stellner, Carl McKelvey, Vic Irvine, Elmer Wavering.

CANADIAN SALES

★ Total receiving-set sales in 1937 in Canada were 264,209 sets, with a list value of \$22,691,150, according to the reports of the Canadian RMA, and including December sales of 26,984 sets, valued at \$2,193,819. The Canadian sales in 1936 were 248,191, valued at \$22,233,329. Of the 1937 sales, 169,564 were AC sets, valued at \$16,992,337; 71,476 battery sets, valued at \$4,402,084, and 23,169 automobile sets, valued at \$1,296,734. There was no substantial increase in the AC or battery sets, but the 1936 automobile sets were 18,711 receivers, valued at \$1,146,371. Canadian inventories, including stocks in hands of jobbers and branches on December

31 last, were 67,399 sets, as against a similar inventory of 39,017 in December, 1936.

GRANTS RMA REQUEST FOR INTERMEDIATE FREQUENCY

★ The Federal Communications Commission has adopted a request from RMA for establishment of the frequency 455 KC. as a protected intermediate frequency for the radio set manufacturing industry. The Commission will endeavor to protect this frequency, set aside in the manufacture of receiving sets, by not authorizing any new frequency assignments in the band from 450 to 460 KC.



J. J. (Jack) Ross, president Detrola Corp., and Mrs. Ross, snapped on the Isle de France enroute for Europe, during their recent successful trip.

**FOUR THOUSAND
RADIO DEALERS
WRITE:
"DEAR EDITOR—"**



DEALER VOLCANO ERUPTS

**Thousands demand price protection; ask for action on trade-ins.
Want more quality, fewer gadgets; more sales help, fewer outlets.**

★ **BUSINESS** men—big and little—journeyed to Washington this month to speak their minds bitterly on what's the matter with business, and what ought to be done about it!

Meanwhile radio business men—large and small—have been having an eruption of opinion of their own, pouring thousands of letters into the office of **RADIO TODAY**, to present the plight of the radio dealer, and to report in blistering terms on the evils which beset our one-time happy trade.

Loudly and angrily, some 4,000 radio dealers are telling **RADIO TODAY** that "we dealers are behind the eight ball!"

Writing letters in which a spade is called a spade, radio's merchandisers report that the trade is in complete confusion.

Dealers are demanding a showdown. They are bewildered, fed up and altogether impatient. They bristle with complaints and they are thoroughly sick of the senseless mix-ups into which the trade has blundered.

Dealers are unable to face the public with any assurance. Their merchandising they say, is shifty, and standards of marketing have disappeared. All the steps they take are the wrong ones. Decent returns are no more.

Standards missing

Specifically, retailers are asking for year-long prices and a chance to rebuild public faith in the radio price structure.

They dislike the practice of taking in old sets at current allowances, unless they get extra help in the disposal of the obsolete receivers.

Dealers want new merchandise which will have the genuine effect of outmoding the older receivers.

They want more assistance in advertising and promotion, and they suggest more appropriate forms.

Dealers also vote in great numbers for fewer models in each line.

In detail, and from most of the

states of the Union, representative opinions are listed herewith.

Price Control

Starting with the sentiments of an Oregon dealer, as to what the trade leaders should do: "Cut out the fancy stuff and make a set to sell at one price all season and not 50% less in 60 days."

Indicating conditions in Chicago: "I can purchase over the counter here, at retail, tax included, any model set desired at lower prices than from lists at net dealer prices."

Also from Illinois: "A product should be worth the price you ask for it, without giving away a bathtub or a house with it," and "Stop industrial selling by dealers, jobbers and manufacturers."

Two Michigan dealers point out that "Lower prices jeopardize past time payment sales," and that the industry should "Stop borax dealers from selling standard radios at 50 to 60% off."

A New York radio man thinks that "Manufacturers should learn how to conservatively manufacture and distribute."

From Ohio comes the observation: "To inspire dealer confidence to go after sales that can be made, we need price stabilization and elimination of cut-throat practices."

A Wisconsin idea is that the industry should "Educate the public that it is economically impossible to merchandise a 10 to 14-tube radio for \$40 or \$50 and give true value."

Another remark from the same state: "Shoot-to-kill all chiselers, who undermine public faith in all industries."

Utah registers: "By cutting price, business is actually lost because people can't make up their minds what they want."

A Texas dealer sees a solution—"Have a special line to compete with mail order and chain stores."

A lively question comes from a Florida store: "Did you ever hear of Mr. Brown buying a radio at cost through a friend, Mr. Jones, who is connected with the Who-Zit Construction Co., just because said company buys \$50,000 worth of materials per year from a radio distributor?"

A Tennessee shop has a plan: "Pass a law to make anyone (other than a dealer) pay a radio franchise license who buys at wholesale."

Revision is requested by a Missouri dealer: "Reduce the usual 40 and 50% discount to 20 or 25%. This is a drastic step unless engaged in by all, but after all, appliances can be sold at this discount profitably."

To open with a brisk statement from New Jersey: "Stop being so damn jittery at the least cause. Put a high enough list on every model so a fixed trade-in can be allowed. 90% of all buyers have sets for trade."

A similar idea comes from Iowa, that manufacturers should "Pad the list price to that a dealer can give a fair trade-in on a used radio."

A California dealer says, "Have local distributors set up a fund so that a dealer would be able to realize a certain amount for any old radio. These would be destroyed by the distributor."

A different angle from Ohio: "Have a built-in trade-in allowance. Now that such big trade allowances have been given, the public expects it on any make or model."

Plans for definite financial assistance are mentioned in Delaware: "Build up a junk fund. Allow dealers a certain junk price for each new model—similar to that used in the auto industry."

A related suggestion comes from New York—"Allow us \$15 or \$20 for trade-in on a \$100 console. Trade-ins are our chief trouble. Profits all tied up in second-hand machines which are hard to sell for anywhere near the allowance made for them."

A Wisconsin dealer submits some dope on selling in smaller towns: "Get people to trade in their sets before they get so old there is no resale value. This could be done by getting dealers to refuse to consider a trade-in over 5 years old. In the smaller towns most people keep their old sets about 10 years."

"Eliminate from advertising all definite naming of trade-in allowances," says a radio man in Rhode Island.

Another letter from Ohio reads: "Provide a cushion for all trade-in allowances on all sets."

A New Jersey dealer feels that manufacturers should "Consign sets."

Needed merchandise

California questions multi-tube claims: "Stop trying to sell the public a stock of tubes instead of a radio."

Also from California: "Change the style. Beautify the cabinets. Cut out the junk."

Mississippi sends a demand: "Invent something to obsolete present sets. Reduce list and net."

Nebraska reports: "We need lay-down table models with a place for batteries in the cabinets—something to compete with mail-order houses."

New York decides: "We need a combination for about \$80 or \$90."

While a Georgia dealer writes: "I

think remote tuning units should be made to sell for about \$20 so they may be attached to obsolete models by service men. This would bring an obsolete radio up to date."

Extra from Louisiana: "Arrange radios so that they may be easily adapted to the use of extra speakers, phonographs and intercommunicators."

A point from Pennsylvania: "Sets of \$100 or more should have old-time paper filter condensers as sales point."

Illinois contributes: "Offer some different form of home entertainment such as a connection for a home broadcast mike that is fool proof and that anybody can connect up."

From Ohio: "Squelch all references to television until such time as it is ready for the public in general."

California just says: "Stop the silly talk re television!"

Promotion

On the favorite subject of manufacturer's helps, national advertising, and general promotion, dealers from 14 states got wound up. From Michigan: "Do not make the public feel that the radio has everything but a spigot."

Mississippi: "Quit advertising cheap sets. Show that in modern times a radio is a real necessity for properly enjoying life and keeping abreast of the news, etc."

Oklahoma: "Most radio salesmen don't know what they are trying to sell. We should get prepared sales data on each year's productions, like they do in the auto business."

Louisiana: "Make the public radio-minded and don't confuse their minds by pointing out how much better one manufacturer's set is than another. Let the salesman do the selling. Let the national advertising create the interest."

Illinois: "Stop riding the coined commercial phrases to death."

Indiana: "Less emphasis on tricky

(Continued on page 18.)



BIGGEST UNSATURATED MARKET

Auto radios still missing on three cars out of four
Radio man has every advantage over automobile trade



Auto-radio controls now become an integral part of the dash design, yet are available for nearly all cars in models sold by radio trade.

★ Three-quarters of the cars in use are *not* equipped with radios. This means that the market-on-wheels is by far the largest unsaturated market with which the average radio dealer has any contact.

Out of every five cars sold last year, one was equipped with radio by the automobile trade, at the time the car was sold. Another of the five was later sold a car-radio by the independent radio dealer—an “after sale.” But the remaining three out of five are still in their drivers’ hands without any radio whatever being installed. Here is the big immediate market for radio sets—sales at a profit, to customers who as a class have some surplus cash.

Few “factory” jobs

Mythical “factory installation” of auto radios is sapping much business from the legitimate radio outlets. Figures from reliable sources indicate that the facts are that only 10 or 15 per cent of all the auto radios sold by the automotive industry are really installed “at the factory,” while 85 per cent to 90 per cent are installed

by territorial or local automotive dealers and distributors, not far from the point of sale of the car.

So, instead of factory-trained experts installing these auto radios, as claimed by the auto industry, many of the installations are farmed out to mechanics working on a contract basis, installation often being made with the least possible effort, and being just good enough to “get by.”

Service and repairs

Then, too, there is the extra handling involved in the sale of radios by the car manufacturers. In addition to the jobber and dealer getting his mark-up, the automotive manufacturer must also get his cut. This means that, dollar for dollar, there is more value in the sets sold by radio outlets.

In the case of an auto-radio purchased through the car dealer and installed by the jobber’s mechanic, service and repairs involve a rather round-about procedure. Auto dealer not having radio department must refer owner to jobber, who in turn

brings in his installation mechanic. On the other hand, when the radio is purchased from a radio dealer, there is no passing of the buck and no extra trouble involved, for there is usually a service department on the premises. Also, since the radio dealer must himself make good on all service difficulties, a better installation results.

Owner of auto radio sold through the automotive trade is in somewhat of a pickle when it comes to repairs, for some of the car manufacturers are reluctant to supply the radio trade with service data. Idea, of course, being to force the radio owner to patronize the automotive outlet’s radio serviceman. At least locally in New York City, Chevrolet refuses to give discounts on replacement parts to legitimate radio servicemen. They do concede, however, to let the serviceman inspect the service data in their shop, the same as any other customer.

Radio man saves money

Radio dealers everywhere can point out to their customers that service on sets bought from automotive outlets will be more expensive. It is also reasonable to assume in many cases that the part-time radiomen and mechanics employed for installation and repairs are not so well trained and experienced as those radio servicemen specializing in radio.

In addition to getting better merchandise for the money from radio dealers, the purchaser of an auto radio will find many more models from which to select in his radio dealer’s showroom. At present prices range from \$20 up. And only from the radio dealer can push-button radios be obtained for use in any make automobile. And many more refinements are found in the sets sold in radio outlets.

Interchangeable

Sets sold by the radio dealer are designed for 100 per cent effectiveness in all makes of cars—they can easily be changed from one make car to another. Controls for various cars are stocked by the radio trade, so that any set is readily converted to fit any

auto. In contrast, sets designed for a particular make of auto may not be so easily changed. Also, making use of the car manufacturers' statements, that the radios are designed especially for use in their own models, it follows that they may not work as satisfactorily in other makes of autos. While there is considerable question as to the truthfulness of the manufacturers' claims for "custom-built" radios, it can be used as an effective argument in favor of radios sold by the radio trade and designed for full efficiency in all makes of automobiles.

Aggressive promotion by radio dealers and radio servicemen will soon dissipate the automotive industry's two myths—factory installation and custom-built sets. This auto radio business belongs to the radio outlet—only experienced radio men can successfully install and service radio sets. Even more important is the fact that the radio dealer many exclusive features and talking points to help sales. Let's go—more auto radios sold by radio outlets.

AUTO AERIAL OPERATION

★ In auto radio aeriels many special problems are encountered which are not found when a less restricted aerial is used, state the Radiart antenna engineers.

Auto aeriels operate upon the difference in potential between the aerial and that developed in the car body, by the broadcast signal. In normal operation, the location of the aerial with respect to the earth has no effect upon the aerial's pickup which is unlike the ordinary home radio aerial.

Also the "ground" provided by the car body is very low resistance and gives the aerial no "unseen height" advantages from high ground resistance.

The design problem then is this; "given either a horizontal aerial 4 feet long, with an elevation above 'ground' of 4 to 6 inches, or a vertical rod not exceeding 8 feet in length, design an auto radio receiver that will give performance similar to that of a home receiver working with a standard all wave aerial". And the engineers have done it.

Auto radio engineers have one advantage over home radio engineers—they know the aerial characteristics they will have to match. Since there are only a few possible methods of installing an auto aerial, they can predict the characteristics of the aerial:

Aerial	Capacity in mmf.	Relative pickup
Hinge whip	40-60	55-70
Hinge extension	40-60	55-95
Cowl extension	50-70	55-110
4-foot roof	85-100	100
Built-in roof	150-250	85-200
Under car	200-400	75-110
Built-in roof plate	800-1500	*

* It was found necessary to build a special receiver for this type of aerial. When installing a set not designed for this aerial, do not attempt to use it, install a standard type aerial. This system was used in all 1936 Chrysler cars except Plymouth.

The capacity values are the average encountered in average installation including the lead-in.

By various circuit devices, it is possible to build an aerial input circuit which can be adjusted to respond equally well to aeriels having capacities of 70 to 200 mmf. and reasonably well to capacities up to 400 mmf. By matching the aerial input circuit to the aerial capacity, a minimum amount of energy is lost in the transfer of the signal from the aerial to the set. When, as often happens, a set does not have sufficient range to match a given aerial, the aerial is unjustly blamed for the set's poor performance. This difficulty may be overcome in either of two ways:

When the aerial's capacity is too low, a small mica condenser connected from aerial to ground will help. Although this method allows the set to absorb more of the signal energy, it by-passes considerable of that energy to ground. This loss of signal strength may be eliminated by the use of a matching resonator which efficiently tunes the aerial to the set whether the aerial capacity be too low or too high.

EXCLUSIVE LISTING OF AUTO RADIO ANTENNAS

Model No.	List Price	Type	Length Inches	Finish
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ABC Radio Labs., 3334 N. New Jersey Ave., Indianapolis, Ind.

A	\$3.50	DH	60t	Cr
B	5.00	RB	48	Cr
C	3.50	FP	96t	Cr

Consolidated Wire & Associated Corps., 512 S. Peoria St. Chicago, Ill.

Data not available as we go to press.

Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill.—"Motorola"

M116	\$2.45	Top	NS	Cr
F116	2.45	Top†	NS	Cr
M192	2.95*	DH	22-42t	Cr-Ss
M191	3.95*	Cowl	24-62t	Cr-Ss
M193	3.95	Top	NS	Cr
F193	3.95	Top†	NS	Cr
M194	4.95	Top	Extra long	Cr
F194	4.95	Top†	Extra long	Cr
M95	3.95	RB	48	Rub
M144	2.45	1937-38 Buick	RB insulators	Cr
M149	2.45	1937-38 Oldsmobile	RB insulators	Cr

Insuline Corp. of America, 23 Park Pl., New York, N. Y.—"ICA"

4574	\$4.75	Top	26-40t	Cr
4580	3.95	Top†	19-35t	Cr
4551	3.50	Cowl	31-60t	Cr

† For cars on which windshield opens.
* Including lead-in.

Model No.	List Price	Type	Length Inches	Finish
4554	2.00	Cowl	60	Bl-Cr
4552	2.75	Cowl	35-68t	Bl-Cr
4550	3.50	Cowl	60	Cr
4553	4.00	Cowl	30-96t	Cr
4250	.50	Lead-in connector		
4507	4.25	Top†	NS	Cr
4506	4.50	Top	NS	Cr
4526	2.25	Top	62	Cr
4525	2.50*	DH	27-54t	Cr
4528	1.85*	DH	42	Cr
4530	2.75*	DH	50	Cr
4531	2.65*	DH	35-68t	Bl-Cr
4532	3.50*	DH	33-96	Cr
4469	1.95	FP	60	Bl-Cr
4770	2.95	FP	30-96t	Cd
4501	2.50*	RB	48	Cd

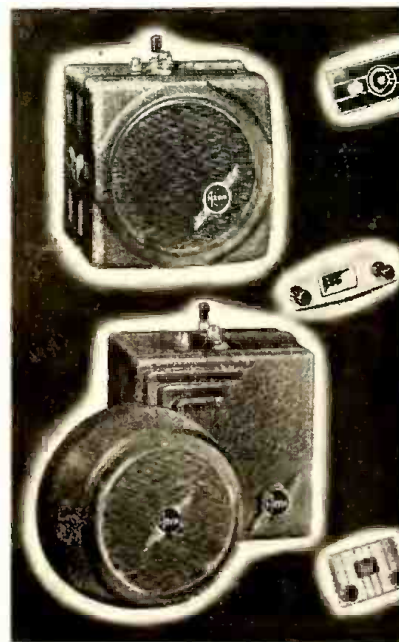
J. F. D. Mfg. Co., 4111 Fort Hamilton Parkway, Brooklyn, N. Y.

3B60C	\$5.00	Cowl	60t	Cr
3B72C	6.00	Cowl	72t	Cr
3085	3.75	Cowl	56	Cr
3087	3.00	Cowl	54t	Cr
3089	4.50	Cowl	96t	Cr
3090	5.00	Cowl	72t	Cr
3091	5.50	Cowl	96t	Cr
2B54H	2.50	DH	54t	Cr
3B60H	4.50	DH	60t	Cr
3B72H	5.00	DH	72t	Cr
3031	2.50	DH	54t	Cr
3032	4.50	DH	72t	Cr
3033	5.00	DH	96t	Cr
3035	3.50	DH	42	Cr
930	2.50	RB	42	Cu
1125	2.50	RB	48	Ru
3050	4.00	RB	48 each	Ru
3060	1.50	RB	48	Cu
3065	3.00	RB	48 each	Ru

(Continued on page 46)



General-Electric's model FA-61 with 6 tubes features 4 watts output.



Arvin Sportsman with 6 tubes at top. Commander with 7 tubes at bottom.

Complete specifications of 1938 auto radio sets on page 20

WHAT THE HONEST RADIO SERVICEMAN IS UP AGAINST!

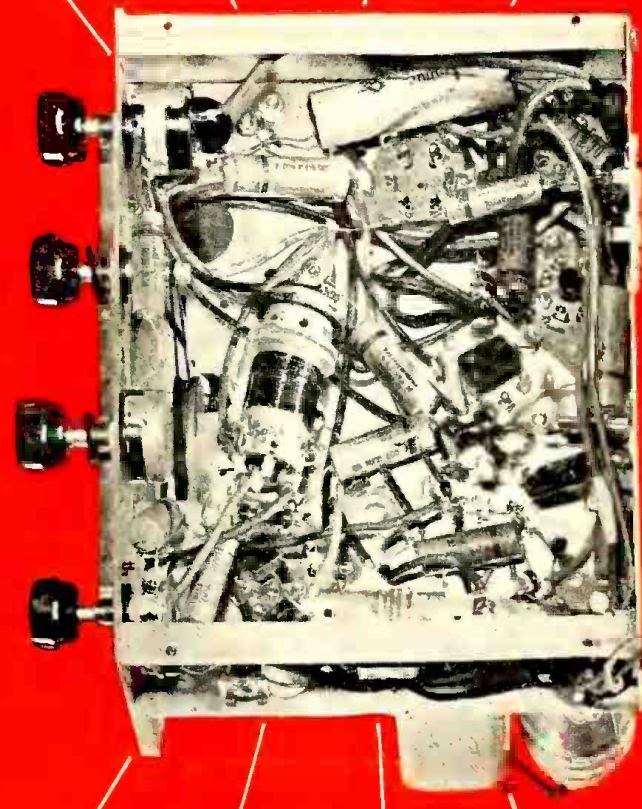
FAKE REPAIRS! — FAKE REPLACEMENTS! — LET THE CUSTOMER BEWARE!

ADJUST DIAL POINTER
CHARGE FOR NEW DIAL

WASH UP TUBES, NEW LABELS
CHARGE FOR NEW TUBES

CENTER SPEAKER CONE
CHARGE FOR NEW SPEAKER

TIGHTEN DIAL
CHARGE FOR NEW TUNING CONDENSERS



REPAINT POWER TRANSFORMER
CHARGE FOR NEW UNIT

ADJUST TRIMMERS
CHARGE FOR NEW I.F. COILS

REVERSE PLUG ON DC SET
CHARGE FOR OVERHAULING

ADJUST CONTACTS ON
ELECTRIC TUNING SETS
CHARGE FOR NEW MOTOR

CLEAN CHASSIS, RESOLDER
BROKEN CONNECTION
CHARGE FOR OVERHAULING
& NUMEROUS PARTS

MINOR REPAIRS TO
ANTENNA-GROUND SYSTEM
CHARGE FOR EXPENSIVE PARTS
SUCH AS FILTER CONDENSERS

**RADIO
TODAY**

Small lettering indicates work actually done. Large lettering shows fictitious replacements charged for.

SERVICING RACKETS

Gyp repairs which the set owner must be warned against

★ CONTINUING its practice of aiding the radio dealer and serviceman to combat rackets, RADIO TODAY presents in the chart opposite an exposé of some of the rackets in the repairing of radio sets. With a knowledge of what such rackets are and how they operate, RADIO TODAY believes that legitimate radiomen should inform their customers and the public, thereby protecting the interests of all concerned.

From the public's standpoint, radio repair rackets are probably the most vicious for they involve a device far beyond the knowledge of the layman. In fact, in some communities, servicing rackets are so prevalent that the radio owners let their sets remain defective or inoperative, rather than take a chance of calling in a "gyp artist." Fortunately the number of concerns so operating is very small; but even so, how can a person guard against the possibility of being charged excessive fees, unless he knows what is reasonable and what the prevalent rackets are.

A few of the outstanding rackets are illustrated on the opposite page.

Wash tubes

The easiest and most profitable racket of all is the charging for a new set of tubes—when in reality the new tubes are the old ones which have been merely washed and labelled with new stickers. Honest servicemen can instill confidence by testing the tubes and by breaking the seals on the new cartons in the customers' presence.

And as manufacturers suggest, further emphasis can be put on the uselessness of the old tubes by breaking the envelopes before throwing them away.

Broken antenna and ground wires, or shorted lightning arrestors are often discovered when the gyp calls, but to effect a larger bill the chassis is yanked and brought to the shop for any combination of repairs that the serviceman feels will pay him most. And the charges net a tremendous profit since nothing is usually done to the set—although there are shops that will change a resistor and by-pass condenser so as to have protection for themselves. Some servicemen are even bold enough to charge similarly for tuning or polarizing the plug in a DC radio set.

Loose screws

Loose set-screws on the dial mechanism are the source of another racket. Since the set tunes in the stations at the wrong place and tuning is difficult, a cock-and-bull story is trumped up so as to make the set owner feel that there is serious trouble. Usually the charge is explained as "replacing the tuning condensers, and alignment."

Adjustment of improperly centered speaker cones may be charged for as replacing the cone—and with the more bolder gyps, the bill is for a new speaker unit.

A can of black paint in some shops will make new power transformers out of the old ones in but a few minutes. Ordinarily the transformers are

painted without removing the unit from the chassis.

In some instances the simple replacement of a defective power switch is billed as the replacement of some major parts costing many dollars.

Noisy controls

And a noisy volume control is charged as noisy tubes, burned-out loudspeaker, shorted filter-condensers. Likewise resoldering broken or open connections is faked as the repair of more expensive items.

One of the answers to the problem is for the serviceman always to return to the customer the parts that were defective and have been replaced. Sear's Radio Clinic in Boston has been making excellent progress with such a policy. By returning the old parts, the customer is then satisfied that they have been replaced and are of no value. Then too, why shouldn't the serviceman be expected to return the old parts? Certainly they belong to the customer.

Servicemen everywhere can build up their prestige by acquainting their customers with what are proper charges, by explaining in what ways customers may be gyped, and by charging for only actual work done on a radio, for there is always the possibility of another serviceman exposing the gyp.

If the charge is for labor, bill it as such, rather than for some phony part or repair. After all, in almost every line of business, the labor charges are much greater than the material, and this statement is particularly true in radio.

RADIO'S GROWTH, 1922 TO 1937

(Compiled for *Broadcasting Yearbook* by O. H. Caldwell, Editor of *Radio Today*.)

	Total Sets		Total Tubes Sold		Motor Car Sets		Grand Total: Sales of Radio Apparatus for Broadcast Reception	Homes with Radio Sets	Auto Sets in Use	Total Radio Sets in Use in U. S.
	Number	Value	Number	Value	Number	Value				
1922	100,000	\$5,000,000	1,000,000	\$6,000,000	.....	.....	\$60,000,000	60,000	.....	\$400,000
1923	550,000	15,000,000	4,500,000	12,000,000	.....	.....	136,000,000	1,500,000	.....	1,000,000
1924	1,500,000	100,000,000	12,000,000	36,000,000	.....	.....	358,000,000	3,000,000	.....	2,500,000
1925	2,100,000	165,000,000	20,000,000	48,000,000	.....	.....	430,000,000	4,000,000	.....	3,500,000
1926	1,750,000	200,000,000	30,000,000	58,000,000	.....	.....	506,000,000	5,000,000	.....	5,000,000
1927	1,350,000	168,000,000	41,200,000	67,300,000	.....	.....	425,600,000	6,500,000	.....	6,500,000
1928	3,281,000	400,000,000	50,200,000	110,250,000	.....	.....	690,550,000	7,500,000	.....	8,500,000
1929	4,428,000	600,000,000	69,000,000	172,500,000	.....	.....	842,548,000	9,000,000	.....	10,500,000
1930	3,827,800	300,000,000	52,000,000	119,600,000	34,000	\$3,000,000	496,432,000	12,648,762	.....	13,000,000
1931	3,420,000	225,000,000	53,000,000	69,550,000	108,000	\$5,940,000	300,000,000	14,000,000	100,000	15,000,000
1932	3,000,000	140,000,000	44,300,000	48,730,000	143,000	7,150,000	200,000,000	16,809,562	250,000	18,000,000
1933	3,806,000	230,099,000	59,000,000	49,000,000	724,000	28,598,000	300,000,000	20,402,369	500,000	22,000,000
1934	4,084,000	270,000,000	58,000,000	36,600,000	780,000	28,000,000	350,000,000	21,456,000	1,250,000	28,000,000
1935*	6,026,800	330,192,480	71,000,000	50,000,000	1,125,000	54,562,500	370,000,000	22,869,000	2,000,000	28,500,000
1936*	8,248,000	480,000,000	98,000,000	69,000,000	1,412,000	69,188,000	500,000,000	24,600,000	3,500,000	33,000,000
1937*	7,700,000	450,000,000	101,000,000	85,000,000	1,750,000	87,500,000	537,000,000	26,000,000	5,000,000	37,000,000

* Figures for sets include value of tubes in receivers. In recent years, replacement tubes have run at about 40% of total tube sales. All figures are at retail values. † Includes home-built sets.

DEALER VOLCANO ERUPTS

(Continued from page 13)

features, more on tone selectivity and quality, both in advertising and manufacturing."

Ohio: "Push new set sales on merit of tone and performance directly to consumer by recommending reliable service men who are coming in daily contact with the buying public and whose advice is usually asked for by the customer."

New York: "Most window displays are very large and bulky. We are always wishing for small cards, etc., to display on window sets."

Also from New York, the suggestion: "Cooperative 'Two Sets in the Home' campaigns or 'Individual Radio.'"

Maine: "Have RMA cooperate with electrical manufacturers to install filters on appliances—especially oil burners and razors. In this locality field strength is so low, that noise is our greatest drawback."

Another from Maine: "Dealers should be assisted with a Spring selling campaign which will go directly into consumer's homes."

South Dakota: "Advertisement along lines that car manufacturers have adopted. Training dealers to service machines before placing on demonstration. This is becoming increasingly important."

Iowa: "On the whole I think the manufacturers are already doing all they can. Fault lies in other directions."

North Dakota: "Small dealers should get more free advertising material and display material with smaller initial orders."

California sends three suggestions: "Stop promising the world on a radio. Sell radio as a marvelous instrument without cheap ballyhoo," and "Radio should be continuously advertised from one month to another—no dull seasons," along with the idea that manufacturers should "Sponsor public radio shows in key cities. Cut out wild claims for sets."

Cabinets

"Gadgets inside do not create jealousy; appearance does. As things stand, when Mrs. Jones sees Mrs. Smith's new radio there is no jealousy created," says a New Jersey dealer, while from California: "Put more in the set and less 'gingerbread' in the cabinet."

Minnesota view: "Make it possible to select a cabinet for appearance, and then install one of say three chassis in this cabinet—easily."

From Connecticut: "Manufacturers should put in three period-styled cabinets to replace modern Duncan Phyfe, Sheraton and Queen Anne. Try to imagine a modernistic radio in a Georgian, or any other period grouping. It just doesn't fit into the scheme of interior decoration at all."

Dumping

A New York notion: "Stop bringing out models ten times a year and concentrate advertising on a few models so the public will stop waiting for the next model and buy with confidence."

Illinois complaint: "The public is educated to wait for the yearly dumping, caused by continuous overproduction. Guarantee no dumping."

Colorado telegram: "Go back to fewer models. Stress tone. No gadgets."

California adds this: "Manufacturers should allow the demand to set the manufacturing pace, instead of vice versa. This may not speed up sales but it will speed up profits."

Help Connecticut store: "Dealers should be assisted in moving current models before new ones are announced."

WHAT IS THE ANSWER?

Next month RADIO TODAY is inviting industry leaders to present their solutions to remedy the evils about which dealers complain so bitterly.

The problems here touched upon deserve the most searching study. RADIO TODAY will enlist the help of some of the best merchandising minds in radio—in addition to offering editorial proposals of its own—to clear up the present sore spots in radio distribution.

WATCH FOR THE MARCH ISSUE!

Note from Michigan: "Cut out about half of the models—down to just a few in each price bracket."

Letter from Maine: "Manufacturers might add a few models to their regular line to be sold to dealers at longer discounts and carrying an increased retail list price. Such 'promotional models' must necessarily have many sales features not used in regular line. This would enable the dealers with a large overhead to concentrate their advertising and sales force on one or more nationally advertised makes, instead of (through necessity) handling radios with no public acceptance."

Questions of outlets

Iowa reports: "At present, at least in this part of the country, radios are sold by garagemen, druggists, hardware stores—well almost anywhere except the grocery stores and we expect most of them to take on a radio contract any day. As if such a combination plus radios bought through mail order houses were not enough to make a difficult sales job harder, we have the wholesalers . . . leaving the land shorn of radio prospects."

A Massachusetts dealer's slap for manufacturers: "Stop being wrangling children and operate as sensible business. No need of the radio business being a racket. Pick clean retailers, cut out the gyps. Give retailers a chance to make a profitable margin."

California: "Develop a sound merchandising and distribution policy—with secure and protected franchises to established and proven dealers."

Also from the Coast: "Stop distributors from selling to all drug and grocery stores. Radios should be sold by radio stores only."

A not-too-serious-we-hope suggestion from New York: "Hold a cruise to Spain for chain-store executives, and leave them there."

Ohio remark: "Cut out drug stores and hardware type dealers. You don't buy your new automobile from your ice dealer. Radio is too big a thing to be a sideline any more."

Quality questioned

Texas wants: "A more conservative radio, with fewer gadgets—a simple one that would cost less to service, would be more profitable to all concerned."

New York insists that: "Radio prices are out of line entirely. Manufacturers should increase consumer value of merchandise by putting into it the money now used for cruises, etc."

A policy from Iowa: "Engineer trouble-free sets, with fewer gadgets that cause mechanical failure."

The Missouri idea: "Expose fake sets such as RADIO TODAY magazine is doing."

Briefly, from Wyoming: "Less ballyhoo and more radio."

Wisconsin dealer suggests: "Get a real distance performer. There are still plenty of people who will buy on a basis of honest distance, not advertised distance. We have sold several communication sets to people not hams."

Illinois report: "People in this locality are dissatisfied with reception even through large new consoles. Reception is disgusting, due to Mexican stations and too many stations on two-thirds of dial."

Finding the answer

What is the answer to these emphatic demands? What is the solution to the problems that beset radio distribution?

Next month RADIO TODAY will present from radio-industry leaders some practical suggestions to help solve the difficulties that now face radio selling. Outstanding figures in the merchandising of radio will be invited to offer their comments and solutions. These industry opinions will be presented, together with an editorial summary of radio's problems and their remedies.

FORWARD WITH SALES

Dealers register constructive merchandising ideas

STREAMLINED SELLING

★ Streamlining a radio store definitely increases business, due to the fact that it enables prospective customers to see more clearly and quickly the merchandise on display, according to Sam Shapiro, Atlas Radio Stores, Milwaukee.

Firm lately remodeled its store at 725 N. Plankinton Ave. and immediately an increase in business was noted, according to Mr. Shapiro. One of the features in the remodeling program was the rebuilding of a display balcony; floors of this balcony are laid with tan figured linoleum. A neat railing, which is made of thin wooden strips, is painted in silver. The walls of the entire store are painted in light cream, with blue trimming.

Another feature of the remodeling program is the installation of five large sound-proof booths. According to Mr. Shapiro, this factor alone has resulted in additional sales. Quiet and privacy in a store this size is absolutely necessary to increased sales. Noise and confusion hinders a prospective customer from making a decision to buy, he declares.

"Many an unavoidable interruption under the open-store system has lost a sale," states Mr. Shapiro, "because attention was diverted from the set being inspected. With the booth system we are able to demonstrate more clearly to prospective customers the excellence, tone quality and range of radio sets we handle."

DEMONSTRATING HIGH FIDELITY AT COLLEGE

★ Frigid Electric Co., Springfield, Mo., staged two high fidelity demonstrations at the local Drury College's Hall of Music, netted a new list of 250 good prospects, and placed a considerable number of sets out on home demonstration.

George F. Baldwin, head of the Springfield store, reports that more than 1,000 persons went to the two shows and were delighted with the educational aspects as well as the entertainment. Arrangements were

made with local school and college officials to hold a matinee which students could attend; classes in music, physics and science came en masse. Music lovers and radio fans crowded the evening event.

Equipment from Stromberg-Carlson's acoustical laboratory was used during the shows. Various frequencies were filtered out to demonstrate audio qualities.

KNOW WHAT TO SELL, TO WHOM, AND WHEN

★ When O. E. Wurtz, Jefferson, Wis., gets a radio prospect into his store to look at a radio set, he tries to find out at once just what the prospect likes about radio, and then he concentrates his sales attention on that feature.

For example, some people, says he, are interested in tone, some in reception, some in foreign stations, some in farm programs, some in cabinet design, etc. Mr. Wurtz believes it is not wise to try to sell a prospect on every feature of a radio, but instead to stress those things in which the prospect is interested. This idea has helped him to make many sales.

Mr. Wurtz knows which people in his section are farmers or who have rural interests. To these he lays great emphasis on the various farm programs and how the new sets will bring them in. To a city or town worker, he stresses the entertainment features it is possible to enjoy to greater extent by owning one of the new radios, with fine tone and reception qualities. When the prospect is a woman, Mr. Wurtz always points out the beauty of the cabinet, the nice design and how the radio will be an asset in the home furnishing scheme. Educational qualities, too, are stressed to young folks who are going to school and who often have a voice in whether a radio shall be purchased for the home.

GOLD-FINISHED INITIALS FOR SETS

★ Into radio's sales promotion program has come a new device—the use of personal initials. Dealers now have a chance to "personalize" radio receivers and give them extra appeal. The gold-finished insignia have been introduced by Crosley Corp. as specially suitable for use on table models.

The form of the letters is quiet and distinctive and they make their appearance in the radio field at a time when the device is already well established in other lines of merchandise.

This idea will deserve an extra play during the Easter period, and promotion plans will be made for Mother's Day and Father's Day application.

"RADIO NEWSPAPER"—NEXT PRODUCT FOR DEALERS TO SELL AND SERVICE



"Radio newspapers" are practically ready for the American home. Facsimile is being transmitted by 13 stations today; there are five manufacturers making the attachments for radio sets. Above is one of the two RCA facsimile models.

AUTO RADIO SPECIFICATIONS

Model No.	List price	No. of tubes	Watts audio power	Amps. batt. drain	R.F. amp.	Speaker Size	Speaker Location	Tone control	Reception control	Type & location tuning controls	Type ant.	Type of vibrator	Dimensions of chassis	I.F. peak	Features	
Automatic Radio Mfg. Co., 122 Brookline Ave., Boston, Mass.—"Automatic"																
M10	NS	5-G	1 1/4	4	No	5	EE	Set	No	Dir	Lo	Non S	10 1/2 x 6 1/2 x 4 1/2	456	2, 9	
M20	NS	5-G	1 1/4	4	No	5	EE	Set	Yes	Dir	Lo	Non S	10 x 6 x 4	456	2, 9	
M30	NS	6-G	1 1/4	4.5	No	5	EE	Set	Yes	Dir	Lo	Non S	10 x 6 x 4	456	2, 9	
M60	NS	6-GO	2	4.5	No	5	EE	Set	No	Dir	Hi-lo	Non S	10 1/2 x 6 1/2 x 4 1/2	456	2, 9	
M70	NS	6-GO	3	6	No	6 1/2	EE	Set	Yes	Rem-IP	Hi-lo	Non S	8 1/2 x 7 x 6 1/2	456	1, 2, 5	
M80	NS	8-GO	7	7	No	6 1/2	EE	Set	Yes	Rem-IP	Hi-lo	Non S	8 1/2 x 7 x 6 1/2	456	1, 2, 5	
Continental Radio & Television Corp., 3800 Cortland St., Chicago, Ill.—"Admiral"																
69	NS	6-OM	3 1/2	6 1/2	Yes	6	EE	Set	Yes	Dash	Hi-lo	Non S	7 3/4 x 7 x 8 3/4	175	4	
55	NS	5-O	2	5	No	5	EE	Set	No	PB	Lo	Non S	6 1/2 x 5 1/4 x 10 1/2	456		
Fada Radio & Electric Co., 30-20 Thomson Ave., Long Island City, L. I.—"Fada Motoret"																
A50	NS	5-OM	3	5	No	5 1/2	EE	Set	No	Dir	Hi-lo	Non S	10 x 6 x 7	456	2, 9	
267	NS	6-G	4	6	Yes	6	EE	Set	Yes	Rem-IP	Hi-lo	Non S	8 1/4 x 7 1/2 x 7 1/4	175	2	
Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill.—"Motorola"																
8-30	\$29.95	6-G	3 1/2	5.8	Yes	5 1/2	EE	Set	No	Rem-IP	Hi-lo	Non S	10 7/8 x 6 1/2 x 7 1/2	262		
8-40	39.95	6-G	3.6	6	Yes	6 1/2	EE	Set	Yes	Rem-IP	Hi-lo	Non S	10 7/8 x 6 1/2 x 7 1/2	262	2, 4, 7	
8-50	49.95	6-G	4.5	5.8	Yes	8	EE	Set	Yes	Rem-IP	Hi-lo	Non S	11 x 8 1/4 x 6	262	2, 3, 4, 5, 7, 8	
8-60	59.95	6-G	4.5	5.8	Yes	6	EE	Set	Yes	PB	Hi-lo	Non S	12 1/2 x 8 1/2 x 7 1/4	262	2, 3, 4, 5, 8	
8-70	69.95	8-O	15	8 1/4	Yes	8	PM	Cowl	Yes	Rem-IP	Hi-lo	Non S	11 x 8 1/4 x 6	262	2, 3, 5, 7, 8	
Golden Voice	79.95	8-O	15	8 1/4	Yes	8	PM	Cowl	Yes	PB	Hi-lo	Non S	12 1/2 x 8 1/2 x 7 1/4	262	2, 3, 5, 7, 8	
General Electric Co., 1285 Boston Ave., Bridgeport, Conn.—"G-E"																
FA60	\$29.95	6-M	4	7 1/4	Yes	6 1/2	EE	Set	No	Rem-IP	Hi-lo	Syn	9 x 8 x 7 1/4	175	4	
FA61	39.95	6-M	4	7 1/4	Yes	6 1/2	EE	Set	Yes	Rem-IP	Hi-lo	Syn	9 x 8 x 7 1/4	175	4	
Herbert H. Horn Co., 1201 S. Olive St., Los Angeles, Calif.—"Tiffany-Tone"																
557	\$29.95	5-OG	3	6	No	5	EE	Set	Yes	No	Rem-IP	Lo	Non S	6 1/2 x 7 x 11	465	1
Howard Radio Co., 1731 Belmont Ave., Chicago, Ill.—"Howard"																
HA7	\$42.95	6-OM	4.5	7.6	Yes	6	EE	Set	Yes	Rem-IP	Lo	Non S	7 1/4 x 6 x 9 1/4	465	1, 2, 4, 5	
HA8	64.50	8-O	9	5.5	Yes	8	PM	Cowl	No	Rem-IP	Lo	Non S	7 1/4 x 6 x 9 1/4	465	1, 2, 4, 5	
HA9	49.95	6-OM	4.5	5.5	Yes	8	PM	Cowl	Yes	Rem-IP	Lo	Non S	7 1/4 x 6 x 9 1/4	465	1, 2, 4, 5	
Montgomery, Ward & Co., Chicago, Ill.—"Airline"																
263	\$23.35	6-G	2.4	7.3	Yes	5 1/4	EE	Set	Yes	Rem	Hi-lo	Non S	8 1/2 x 7 1/4 x 6 1/4	175	4	
258	31.95	6-GM	6.0	8.3	Yes	6	EE	Set	Yes	Rem	Hi-lo	Syn	10 1/2 x 7 1/4 x 6 1/4	175	4	
†Less Panel Kits.																
Noblitt-Sparks Industries, Columbus, Ind.—"Arvin"																
5	\$24.95	5-O	3	5.5	No	5	EE	Set	No	Rem-U	Lo	Non S	8 1/4 x 8 1/4 x 6 1/2	455	1, 2, 4	
22A	37.95	6-MO	3	6.2	Yes	5 1/2	EE	Set	No	Rem-IP	Lo	Non S	8 1/4 x 8 1/4 x 6 1/2	170	1, 2, 4	
32	49.95	6-MO	5	6.6	Yes	8	EE	Opt.	Yes	Rem-IP	Lo	Non S	8 1/4 x 8 1/4 x 6 1/2	170	1, 2, 4	
42	59.95	7-OM	9	7.2	Yes	8	EE*	Opt.	Yes	Rem-IP	Lo	Non S	8 1/4 x 8 1/4 x 6 1/2	170	1, 2, 4	
*PM in separate case only.																
Pacific Radio Corp., 844 W. Adams St., Chicago, Ill.—"Pacific"																
38H5	\$19.95	5-GM	3 1/2	5	No	5	EE	Set	Yes	Dir	Hi-lo	Non S	5 1/4 x 6 x 10 1/2	456	9	
38H6	39.95	6-GM	3 1/2	5	Yes	6	EE	Set	Yes	Rem-IP	Hi	Non S	6 1/4 x 8 1/2 x 9 1/2	262	2, 4, 5	
Philco—See Transitone																
Pierce-Airo, Inc., 440 Lafayette St., New York, N. Y.—"DeWald Mototone"																
527	\$24.95	5-G	3	6	No	5	EE	Set	Yes	No	Dir	Hi-lo	Non S	10 x 6 x 6 1/2	456	9
702	44.95	7-GM	3.5	6 1/4	Yes	6	EE	Cowl	Yes	No	Rem-IP	Hi-lo	Non S	9 x 7 1/4 x 7 1/4	175	4
Radolek Co., 601 W. Randolph St., Chicago, Ill.																
N16815-660	\$39.95	6-G	3 1/2	6	Yes	6	EE	Set	Yes	Rem-IP	Hi-lo	Non S	8 7/8 x 7 1/2 x 6	262.5	1, 2	
N16840-R6440	74.95	7-O	9.5	7 1/2	Yes	8 & 6	EE	Cowl-hdr	Yes	Rem-IP	Hi-lo	Non S	9 1/2 x 11 1/2 x 8 1/2	262		
N16826-B661	48.90	6-G	3	5.8	Yes	6	EE	Set	Yes	PB	Hi-lo	Non S	8 3/4 x 7 1/4 x 7	175	1	
RCA Mfg. Co., Front & Cooper Sts., Camden, N. J.—"RCA-Vector"																
8M	NS	5-O	3.5	6	No	5	EE	Set	No	Dir	Lo	Non S	5 1/2 x 6 x 10 1/2	460	4, 9	
8M1	NS	6-OM	3.5	6.6	Yes	5	EE	Set	No	Rem-IP	Lo	Non S	7 x 10 x 7 1/2	260	1, 2, 4	
8M2	NS	6-OM	3.5	6.6	Yes	8	EE	Cowl	No	Rem-IP	Lo	Non S	7 x 10 x 7 1/2	260	1, 2, 4	
8M3	NS	6-OM	9.0	7.5	Yes	6	EE	Set	Yes	Rem-IP	Lo	Syn	7 x 10 x 7 1/2	260	1, 2, 4	
8M4	NS	6-OM	9.0	7.5	Yes	8	EE	Cowl	Yes	Rem-IP	Lo	Syn	7 x 10 x 7 1/2	260	1, 2, 3, 4	
Transitone Automobile Radio Corp., Tioga & C Sts., Philadelphia, Pa.—"Philco Transitone"																
920	\$24.95	5-G	NS	NS	No	5 1/4	EE	Set	No	Dir	Lo	Non S	7 1/4 x 5 1/4 x 9 1/2	260	9, 10	
926	39.95	6-G	NS	NS	Yes	6 1/2	EE	Set	Yes	Rem-IP	Lo	Non S	9 x 8 3/4 x 6 1/2	260		
927	49.95	7-G	NS	NS	Yes	7 1/2	EE	Set	Yes	Rem-IP	Lo	Non S	9 x 8 3/4 x 7 1/2	260	6	
928K	59.95	7-G	NS	NS	Yes	7 1/2	EE	Cowl	Yes	Rem-IP	Lo	Non S	9 x 8 3/4 x 6 1/2	260	6	
Traveler Radio & Television Corp., 1026 W. Van Buren St., Chicago, Ill.—"Traveler"																
610	\$39.95	6-M	4	6	No	6 1/2	EE	Set	No	Rem-U	Hi	Non S	8 7/8 x 7 1/2 x 6	456	1, 4	
710	49.95	7-M	8	7	Yes	6 1/2	EE	Set	Yes	Rem-U	Hi	Non S	8 7/8 x 7 1/2 x 6	456	1, 3, 4	
711	59.95	7-M	8	7	Yes	8	EE	Cowl	Yes	Rem-U	Hi	Non S	8 7/8 x 7 1/2 x 6	456	1, 3, 4	
Troy Radio Mfg. Co., 1144 So. Olive St., Los Angeles, Calif.—"Troy"																
86	\$29.95	6-GM	2 1/2	6	No	5	EE	Set	No	Rem	Hi-lo	Non S	8 3/4 x 7 1/4 x 6 3/4	465	1	
87	35.95	7-GM	2 1/2	6 1/2	Yes	6	EE	Set	Yes	Rem	Hi-lo	Non S	9 3/4 x 8 x 7	465	1	
Universal Battery Co., 3410 S. LaSalle St., Chicago.—"Universal"																
60	\$39.95	6-GM	3 1/2	6.1	Yes	6	EE	Set-Hdr	Yes	No	Rem-IP	Hi-lo	Non S	11 1/2 x 6 1/2 x 7 3/8	262	1, 4, 5
70	54.95	7-OM	7 1/2	6.5	Yes	6	EE	Set-Hdr	Yes	Yes	Rem-IP	Hi-lo	Non S	11 1/2 x 6 1/2 x 7 3/8	262	1, 4, 5
80	65.95	8-OM	8 1/2	7.3	Yes	6	PM	Set-Hdr	Yes	Yes	Rem-IP	Hi-lo	Non S	11 1/2 x 6 1/2 x 7 3/8	262	1, 4, 5
United Motors Service, Inc., 3044 W. Grand Blvd., Detroit, Mich.—"Delco"																
R663	\$27.95	6-O	2 1/2	5	Yes	5	EE	Set	No	Dir	Non S	6 1/4 x 10 1/4 x 6 3/8	262	9		
R664	39.95	6-O	4 1/2	6	Yes	6	EE	Set	Yes	No	Rem-IP	50	Non S	7 1/4 x 6 1/2 x 10	262	
R665	51.95	6-O	5	6	Yes	8	EE	Set	Yes	No	Rem-IP	50	Non S	8 1/4 x 6 1/2 x 10 1/8	262	5
R666	57.95	6-O	6	6	Yes	8	EE	Set	Yes	No	Rem-IP	325	Non S	8 1/4 x 6 1/2 x 10 1/8	262	3, 5
R667	68.95	6-O	6	6	Yes	8	EE	Set	Yes	No	RB-Rem	mmfd	Non S	8 1/4 x 6 1/2 x 10 1/8	262	3, 5
R668	67.95	7-O	12	6 1/2	Yes	8	EE	Cowl	Yes	No	Rem-IP	50	Non S	8 1/4 x 6 1/2 x 10 1/8	262	3, 5
R669	78.95	7-O	12	6 1/2	Yes	8	EE	Cowl	Yes	No	PB-Rem	50	Non S	8 1/4 x 6 1/2 x 10 1/8	262	3, 5
Wholesale Radio Service Co., Inc., 100 Sixth Ave., New York, N. Y.—"Lafayette"																
S-9	\$31.90	5-G	2	5	No	5	EE	Set	Yes	Dir	Hi	Non S	6 1/2 x 12 1/2 x 6 1/4	456	2	
D-37	59.90	7-MO	7	8	1	6	EE	Set	Yes	Rem-IP	Hi-lo	Non S	11 1/4 x 5 3/8 x 7 3/8	262	1, 2, 5	
EB-17A	39.70	6-GO	3	6	No	5	EE	Set	Yes	Rem-IP	Hi-lo	Non S	9 x 6 x 8	456	1	
Zephyr Radio Co., 13139 Hamilton Ave., Detroit, Mich.—"Zephyr"																
3M7	\$47.50	7-GM	3	5	Yes	6 1/2	EE	Set	Yes	Rem	Hi	Non S	7 x 9 x 8	262 1/2	5	
3M5	34.95	5-G	2	4	No	5	EE	Set	No	Dir	Hi	Non S	6 x 5 x 10	456	5	

Legend

TUBES
 G—Glass.
 O—Octal glass.
 M—Metal.
 MG—Glass mainly, some metal.
 MG—Metal mainly, some glass.

SPEAKER FIELD
 EE—Electrically excited.
 PM—Permanent magnet dynamic.

TUNING CONTROLS
 Rem—Remote.
 Dir—Direct.
 PB—Push button.
 IP—Instrument panel.
 U—Under instrument panel.

ANTENNA
 Hi—High capacity.
 Lo—Low capacity.

VIBRATOR
 Non S—Non synchronous.
 Syn—Synchronous-rectifier.

FEATURES
 1. Single hole mounting.
 2. Antenna filter.
 3. Acoustical compensation or treatment.

4. Iron-core coils.
 5. Cold cathode rectifier.
 6. Inverse feed-back.
 7. Automatic tuning other than PB.
 8. Temperature compensation.
 9. Chassis mounts behind instrument panel.
 10. Preselector antenna tuning.
 NS—Not stated by manufacturer.



More safety with sound—the Electrical Equipment Co., Miami, Fla., sold this mobile system to the Police Dept.'s Accident Prevention Bureau (Webster-Chicago)

POINTS ON PUBLIC ADDRESS

CHURCH CHIMES POPULAR

★ New and lively interest in sound-amplified church chimes, is reported from different parts of the country. A number of new church-steeple installations have gone in, and these have been effective in increasing church attendance. Churches today feel the need of calling themselves to the attention of the public, and amplifier chimes provide a most effective and dignified means of advertising religious services to the community, particularly when organ music is fed through the tower speakers.

Many such church installations have been paid for by endowments or gifts from elderly and wealthy parishioners. For \$1,200 to \$1,500, a very satisfactory church-steeple job can be installed. With speaker-chimes, the tower does not have to be re-inforced as is necessary with heavy bells. Installations can be made quickly. One order (from Lowville, N. Y.) reached the Camden, N. J., factory by phone on Wednesday, and the material was shipped and working the following Sunday, illustrating the speed and simplicity of installation.

AMPLIFIED MUSIC AIDS STREET DECORATIONS

★ During the Christmas season, the town of Vineland, N. J., installed a system of loudspeakers along its

downtown streets, hidden among the holly and colored electric lights. A microphone was installed in the Methodist Episcopal church, and from it Protestant, Catholic and Jewish choirs and congregations took turns in providing choral and instrumental music for the street crowds during the holiday evenings.

Creates good mood

Unexpectedly these Christmas carols carried to the streets here by amplification system, had a reforming



Promoted at Operadio Mfg. Co. is Howard A. Wilson, to post of sales manager of P.A., sound and amplifier division.

influence on Andrew Jenson, 17, who had hitch-hiked from Hoboken.

Police learned of the moral victory when they arrested Jenson as a suspicious character. "I had planned to rob a jewelry store but I lost my nerve," he confessed. "The singing made me feel differently."

SELLING EQUIPMENT FOR HARD-OF-HEARING

Possibilities for sound jobs to be had among churches, auditoriums, theaters, schools, etc., have increased as new and improved equipment for hard-of-hearing persons is introduced.

The new headphones, as introduced by Webster-Chicago, are light and comfortable, and are of the one-ear type so that the wearer may listen to conversation as well as to what is coming from the stage. Volume control is provided "in a simple jack box."

It is suggested that when the new systems are used in connection with talking pictures, that "the input of the amplifier should be connected to the loudspeaker wiring of the sound, on the film equipment installed in the theater."

LOUDSPEAKERS FOR CHICAGO FIREFIGHTERS

★ Recently in Chicago when a large church building burst into flames, the voice of the fire chief came booming through a new 100-watt loudspeaker and could be heard several city blocks away. Firemen and fire-fighting facilities were directed and organized to the best possible advantage for saving lives and property.

The speaker is mounted on a swivel atop the cab of the light-generating truck which is always present at night fires. On the swivel, the speaker may be moved in any direction to aim the volume of sound much like the beam of a searchlight. The fire marshal is given the power to speak to all persons at the scene, to direct them or to warn them.

RCA Victor has designed the loudspeaker with two 50-watt amplifiers, and says that "the use of the world's largest permanent radio magnet and a new sound distribution design make possible a remarkable efficiency in the projection of sound with the highest quality and a minimum of power."

The system was first used by the beach patrol at Atlantic City, and now after the first trial in Chicago, is being considered for all fire trucks in the Windy City.



Action poses of band leaders, in eight colors, are finding favor with record dealers who want catchy displays for windows, counters, record-players, etc. These 14" cut-out figures, themselves merchandisers, come from RCA Victor.

PROMOTING THE PLATTERS

CUSTOMERS DELIGHT IN SELECTING OWN RECORDS

★ "You can't tell by the cut of a man's clothes or the size of his salary in the income-tax reports, how much of a buyer of records he will be," comments H. Royer Smith, Tenth and Walnut streets, Philadelphia, who has many of the city's famous families on his list of regular customers.

"In fact, one of our best buyers of phonograph records is a street-car conductor, who by this time must have over a thousand dollars invested in his collection of fine musical recordings. But whether the purchaser is in the lower income brackets, or is one of our limousine trade, the greatest enjoyment he can have is in collecting his own record library—making a selection, piece by piece, of the music he wants to hear and have always available.

"To most discriminating record buyers, this fun of collecting their own records far outpaces any satisfaction in buying a ready-made library, however well selected."

COUNTING RECORDS

★ Once RADIO TODAY went to press with the figures on sales of records for 1937, there was considerable stir. Executives are asking for breakdowns on this, one of the liveliest branches of the radio business; manufacturers are bringing out new record-playing instruments.

Of the 31,000,000 records sold in 1937, it is estimated that about 10

per cent were in the classical brackets. This means that nearly 28,000,000 popular discs were retailed. A good section of these no doubt went into the estimated 400,000 coin machines in the country.

Further checking of the 70,000 figure as an estimate for the number of phonograph-radio combinations sold, indicates that the count was OK, particularly when small portables are included. Perhaps 5 per cent sold at prices over \$500, and another 30 per cent went out at list prices over \$250.

GIVE 'EM TIME

★ The Dunkards have checked themselves out of considerable happiness. They're a religious sect who believe in life without frills—they prefer beards (for the men), ultra-conservative clothes, etc. And now they've thumbs-downed radios in their homes.

At a recent national conference at Delphi, Ind., the Dunkards sat in a dismal ring and made their annual decision on how much they should permit themselves to be streamlined. Some of the young ones thought that since the conference had already come over to lace curtains, autos and telephones, radio would be next.

But the group said no, radios are wicked. Think of all the broadcast sermons and sacred music they're going to miss!

★ The picture of the singer appearing in Part II of this issue is an NBC photo of Gladys Swarthout,

WAX WORTH WATCHING

★ EVE SYMINGTON, LEO REISMAN, and XAVIER CUGAT in a feature album titled "A Night at the Waldorf." Titles include Estrellita, Blackman's Lullaby, La Petite Amie, St. Louis Blues, and four others—Victor.

ARTHUR TRACEY (The Street Singer) singing Bei Mir Bist Du Schon and Shake Hands With A Millionaire—Decca 1610.

RUSS MORGAN playing The Dinsy Doodle, with VC by Jimmy Lewis, and Tidal Wave—Brunswick 8052.

RAYMOND SCOTT QUINTETTE playing The Penguin and War Dance For Wooden Indians—Brunswick 8058.

ELLA FITZGERALD and her Savoy Eight playing Bei Mir Bist Du Schon and It's My Turn Now, both with VC by Ella Fitzgerald—Decca 1596.

WINGY MANNONE and his orchestra playing Loch Lomond and Annie Laurie, both with VC by Mannone—Bluebird B7389.

LOUIS PRIMA and his band playing Yes, There Ain't No Moonlight, and Rosalie from the MGM production, both with VC by Louis Prima—Decca 1618.

ELLA LOGAN singing Oh Dear What Can The Matter Be and Jingle (Binale) Bells, both with orchestra under direction of Bill Harty—Brunswick 8057.

TOMMY DORSEY playing Stop Look And Listen and Beale Street Blues—Victor 25767.

ABE LYMAN playing How'da Like To Love Me, with VC by Olga Sardi, and I Fall In Love With You Every Day, with VC by Frank Parrish both from the Paramount film "College Swing"—Bluebird B7379.

ETHEL WATERS singing You're A Sweetheart from the Universal production, and I'll Get Along Somehow, both with Eddie Mallory and his orchestra—Decca 1613.

MILDRED BAILEY and her orchestra playing I See Your Face Before Me from "Between the Devil" and Thanks For The Memory from "Big Broadcast of 1938", both with VC by Mildred Bailey—Vocalion 3931.

radio, screen and opera star who has also made a number of important operatic recordings.

★ Photo of the crowd of gentlemen on page 13 is by Ewing Galloway.

RADIO DISPLAY GOES 'ROUND

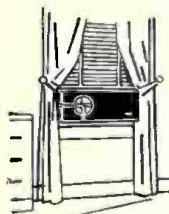
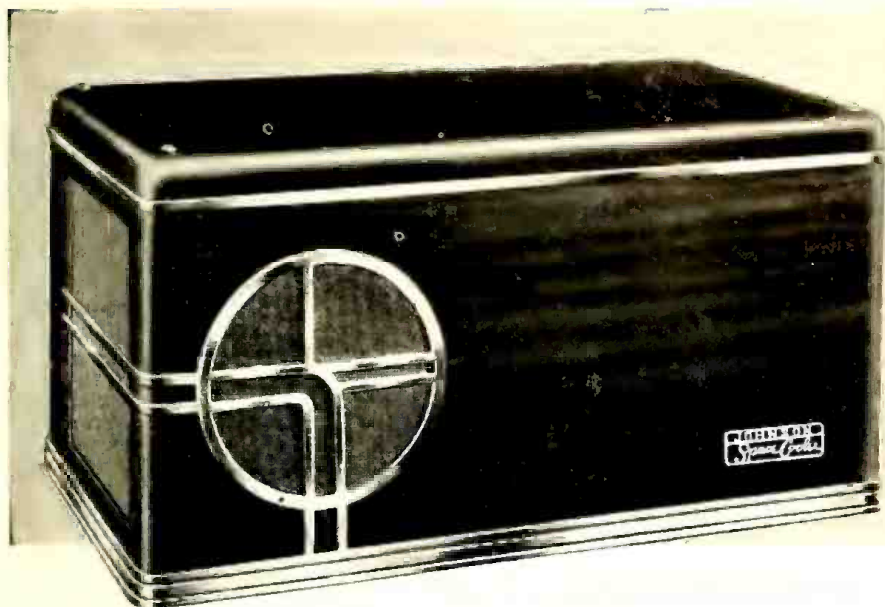


Mr. Goodman and his rotary salesman.

★ A new type radio display for use on floors or in windows has been introduced by Goodman Rotary Radio Display Specialties, 19 W. 34th St., New York City. The whirling display gives the dealer a chance to play the set while in motion and to use concealed lights at the base. The device is AC operated and was created and developed by Edwin E. Goodman.

Johnson Announces

A GREAT NEW DEVELOPMENT IN SPACE COOLERS



This sensational Space Cooler meets the demand for a *simple* unit to *successfully* air-condition single rooms.

It is a highly developed, self-contained electric refrigeration plant of the twin cylinder compressor type. Air is circulated over cold coils where it is cooled, de-humidified and cleaned—then distributed throughout the room.

It offers the refreshing comfort of a mountain cabin to people in homes, in offices, in hospitals, hotels, clubs. Its popular price brings it within the reach of thousands of doctors, dentists, lawyers, sufferers from hay fever, and others who have long wanted a **DEPENDABLE** product of this type.

It is the product of Johnson Motors, builders of the world famous Sea-Horse Outboard Motors, household electric refrigerators and other products of outstanding quality. More than five years in refrigeration, with many notable developments to its credit, have given Johnson a perfect background for this latest achievement.

DISTRIBUTORS: DEALERS: The Johnson Space Cooler is going places! It will make real money for you—*this season*. Investigate! Distributors and dealers are signing up. Complete information will be sent to you immediately upon request.

JOHNSON MOTORS
REFRIGERATOR DIVISION, 2040 MONMOUTH BLVD., GALESBURG, ILL.

JOHNSON *Space Cooler*

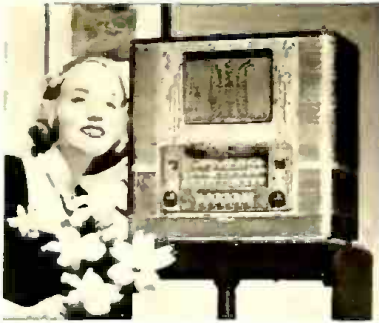
**LOW
PRICE FOR
BIG
VOLUME**

- ★
- HIGHLY DEVELOPED
- COMPACT
- POWERFUL
- SELF-CONTAINED
- NO WATER PIPES
TO CONNECT
- NO SPECIAL WIRING
TO INSTALL
- NO EXTRA FLOOR
SPACE REQUIRED
- FITS ON WINDOW SILL
- PLUGS INTO NEAREST
LIGHT SOCKET
- COOL, CLEAN, DE-HU-
MIDIFIED AIR



NEW THINGS

Latest news of radio products from the manufacturers



RCA sets

★ Push-button type AC 7-tube table superhet with magic eye tube. Tunes 530-1720, 2300-22,000 KC in 3 bands. 4½ watts output—AC operation. 20:1 vernier straight line dial. Variable tone control. Tone compensated volume control—AVC. Walnut and maple cabinet 16¼ inches high. Model 87T-2—list \$69.95.



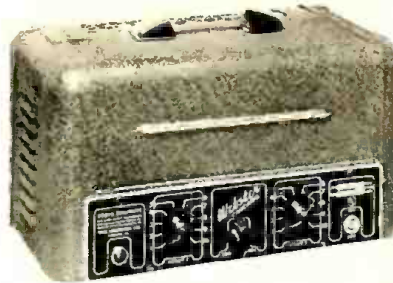
Low cost push-button tuning table set. Uses 4 tubes in a T.R.F. circuit. Beam power output of 1.5 watts—AC-DC operation. Selects 6 stations. Walnut finished cabinet 8 inches high. Model 94X-1—list \$17.95.



5-tube superhet with clock dial and metal tubes. Power output of 2 watts. AVC—tunes 540-1720 KC. Iron-core I.F. transformers. Dynamic speaker. Model 95T—list \$22.50. RCA Mfg. Co., Front & Cooper Sts., Camden, N. J.—RADIO TODAY—see also advt. p. 3.

18-inch bass-reflex enclosures

★ Enclosures for Jensen 18-inch and auditorium speakers have been designed so that they can be used with speakers now in the field. Enclosure is shipped knocked down. Use of bass-reflex enclosures does away with the need of a baffle and gives superior reproduction. Jensen Radio Mfg. Co., 6601 S. Laramie Ave., Chicago, Ill.—RADIO TODAY.

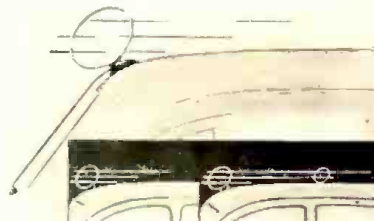


14-watt sound system

★ Portable type sound system with 14-watt output. Distortion held to within 2 per cent by use of inverse feedback. Features full-length mike stand, tone control, two PM speakers all contained in a single leatherette carrying case. Model PA-714. Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.—RADIO TODAY.

Clarion sound system

★ Unified sound system with 30-40 watt output. 128 DB overall gain. Dual 12-inch dynamic speakers with flare baffles. Velocity mike with floor stand. Beam power tubes with inverse feedback. Electronic mixing—2 hi-gain, 2 lo-gain input channels. Slate gray chassis with streamlined cover. Bass and treble equalizer controls. Transformer Corp. of America, 69 Wooster St., New York, N. Y.—RADIO TODAY.



Clipper roof aeriels

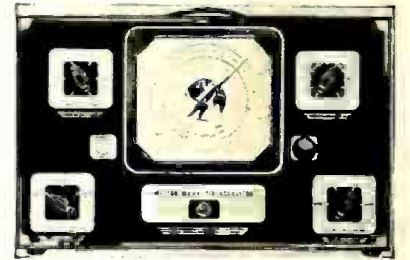
★ Streamline type of auto antenna for roof or top mounting. Chrome plated non-ferrous metal—guaranteed rustproof. Bakelite and chrome fittings. Model M193 with cowl lead-in—list \$3.95. Model F193 for cars with windshields that open—list \$3.95. DeLuxe models M and F194 is extra long and provide ad-

ditional pick-up—list \$4.95. Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill.—RADIO TODAY.



Emerson 5-tube super

★ Five-tube super het model AU-190 listing at \$29.95. Two bands cover American B.C. and police, amateur and aeroplane stations, AC operation. May be had with special external line cord resistors for operation on 150 volts, 230 volts and 250 volts. Other features are dynamic speaker, AVC, tone control, beam power tube, gemloid dial, built-in antenna, acoustically constructed molded cabinet. Emerson Radio & Phonograph Corp., New York, N. Y.—RADIO TODAY.

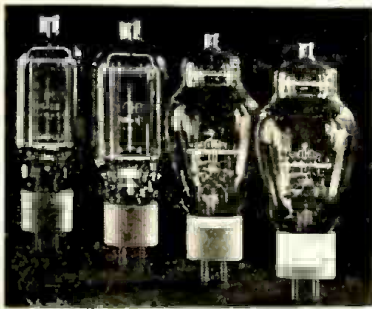


Weston test oscillator

★ AC-operated servicing oscillator with range of 50 to 30,000 KC in 6 bands. Hand drawn and individually calibrated scales. No trimmer condensers used. Automatic amplitude control of oscillator output—calibrated microvolt outputs from 1 to 100,000. Accuracy of 1 per cent on shortwave and ½ per cent on broadcast and I.F. bands. 400 cycle modulation. Jack for frequency modulator when using oscilloscope. Fully shielded construction including shielded line cord. Model 776. Weston Electrical Instrument Corp., Newark, N. J.—RADIO TODAY—see also advt. p. 29.

Raytheon amateur tubes

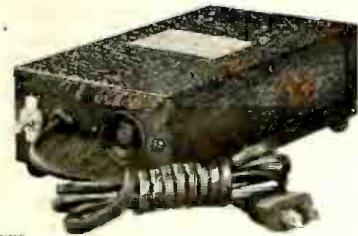
★ Triode type tubes for amateur transmitters. Type RK11 has a mu



Jefferson filament transformers

★ Transformers designed for filaments of rectifier tubes. Type 464-461 supplies 5 volts at 12 amps—3000 volt insulation. 464-451 supplies 5 volts at 20 amps—3000 volt insulation. Type 464-441 has a 10 volt secondary delivering 4 amps.—insulation rating of 2500 volts. Jefferson Electric Co., Bellwood, Ill.—RADIO TODAY.

of 20 and output of 55 watts. Net \$2.50. RK12 is a zero bias triode with 55 watts rating—net \$2.50. RK51 has a mu of 20 and 170 watts output—net \$8.50. RK52 is a hi mu zero bias triode with 135 watts output—net \$8.50. Raytheon Production Corp., 420 Lexington Ave., New York, N. Y.—RADIO TODAY.



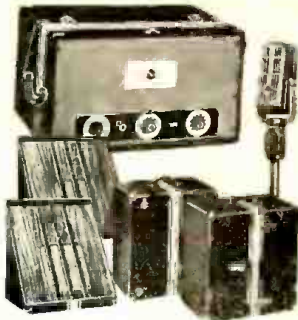
Polarity changers

★ Vibrator type DC to AC inverter. Operates AC sets or devices on DC power lines. On 110 DC a 105-volt AC output is obtainable. Efficiency on the order of 96 to 99 per cent. Voltage drop of ½ volt per 50 watts load. Variable output frequency permits adjusting to 60 cycles under load. Units designed for load not exceeding 350 watts with power factor over 75 per cent. Electronic Laboratories, Inc., 122 W. New York St., Indianapolis, Ind.—RADIO TODAY.



Noise filter

★ Plug-in type noise filter for reducing radio interference caused by small electrical appliances. Inserted in the power outlet—appliance or radio plugged into unit. 2 inches long by 1 1/16 inch diameter. Sprague Products Co., North Adams, Mass.—RADIO TODAY.



Lafayette portable PA system

★ Deluxe 20-watt sound system having 138.6 DB gain. Beam power output stage with inverse feedback circuit. 4 input channels for all types of mikes. Mike, amplifier, floor stand carried in one case, dual 12-inch speakers carried in a second case. Neo-dials provide illumination of controls. Will handle audiences up to 2000. Wholesale Radio Service Co., 100 Sixth Ave., New York, N. Y.—RADIO TODAY.

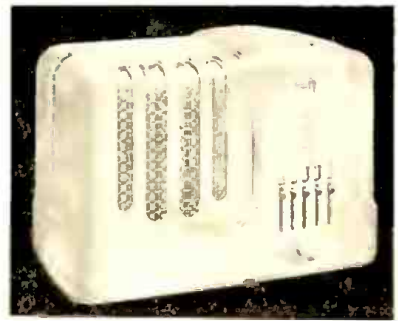


Recording attachment

★ Inexpensive turntable and cutting head for instantaneous recording. Handles 12-inch acetate records. Cutting head impedance of 15 ohms—½ watt power required to operate cutting head at full efficiency. 2,000 ohm pick-up for playback. Housed in a case 15 x 15 x 8 inches. List \$98.50. Presto Recording Corp., 139 W. 19th St., New York, N. Y.—RADIO TODAY—see also advt. p. 48.

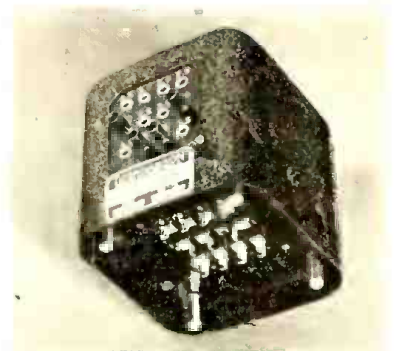
Cabinet touch-up kit

★ Kit of 22 items to be used in polishing and touching up scratches on all types of radio cabinets. Contained in small leatherette carrying case. Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.—RADIO TODAY.



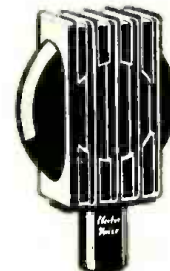
Belmont push-button set

★ 5-tube AC operated single-band table set with lever type tuning for 5 stations. Full vision dial—tune 535-1,720 KC. 5-inch electrodynamic speaker. Power output of 1.4 watts. Average sensitivity of about 25 microvolts. Bakelite cabinet. Model 526. Belmont Radio Corp., 1257 Fullerton Ave., Chicago, Ill.—RADIO TODAY.



Class "B" input transformers

★ C.H.T. type multi-match input transformers for class B audio amplifiers. Variable impedance ratios. Types T15D82 and T15D83 operate from a 500 ohm line and handle 15 and 30 watts respectively. Type T15D84 matches 6L6's to the grids of a class B stage—also has tertiary winding for feedback circuit. Will handle 30 watts. Thordarson Electric Mfg. Co., 500 W. Huron St., Chicago, Ill.—RADIO TODAY.



Carbon microphone

★ Modernistically styled carbon microphone. Double button type—internal shock absorber mounting. Operates on 3—15 milliamperes button current. Furnished with 6 feet of cable. Model 75—list \$7.50. Electro-Voice Mfg. Co., 324 E. Colfax Ave., South Bend, Ind.—RADIO TODAY.

MORE NEW THINGS



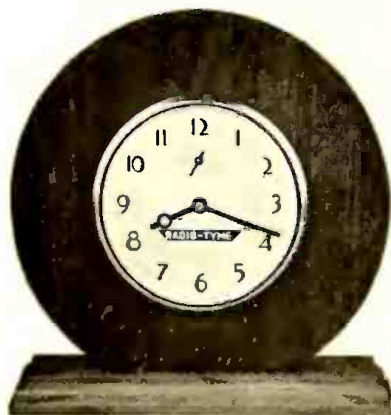
Ansley dynaphone

★ Electric phonograph with 3-tube amplifier. Crystal pick-up with curved arm to provide improved tracking. Gray airplane luggage type case measuring 11½ x 18 x 7½ inches—weight 18 pounds. Model D-26 for AC operation—list \$44.50. For AC-DC operation list \$49.50. Ansley Radio Corp., 240 W. 23rd St., New York, N. Y.—RADIO TODAY.



Solar mica capacitors

★ Transmitter type mica condensers. Designed for high voltage and heavy RF currents. Clamped and anchored into case—eliminates hum. Hermetically sealed in a glazed porcelain case. Transmica condensers available in all usual voltages and capacitances. Solar Mfg. Corp., 599 Broadway, New York, N. Y.—RADIO TODAY—see also advt. p. 55.



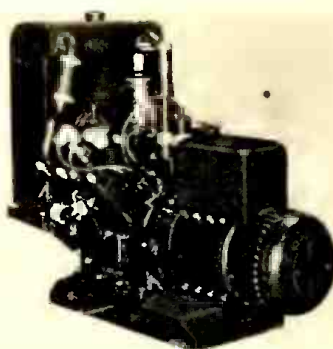
Radio-Type clock

★ Clock controlled switch designed for turning on the radio at a pre-determined time. Cord on clock plugs into power line and radio set into a receptacle on the

clock. Mercury switch assures positive action. Spring-wound clock works. Gibb Mfg. Corp., 216 N. Clinton St., Chicago, Ill.—RADIO TODAY.

Center-tap resistor

★ Wire-wound center-tapped resistors having molded bakelite insulation. Metal strip across the top extended at ends serves as mounting bracket and assists in rapid heat dissipation. Unit will handle 5 watts when bolted to chassis—2½ watts in open air. 10 to 200 ohms. Type MW-2J. International Resistance Co., 401 N. Broad St., Philadelphia, Pa.—RADIO TODAY—see also advt. p. 41.



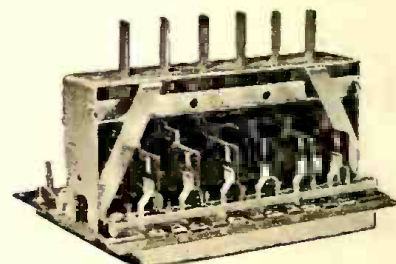
Onan AC power plant

★ Compact 5,000-watt AC power plant. Self-excited generator with 25 per cent continuous overload capacity. 1,800 r.p.m. 15 h.p. gas engine. Available in manual starting, remote-controlled starting, and fully automatic operation. Electrically shield to prevent radio interference. Weighs only 575 pounds. Complete with all accessories. D. W. Onan & Sons, 43 Royalston Ave., Minneapolis, Minn.—RADIO TODAY. See also advt. p. 54.



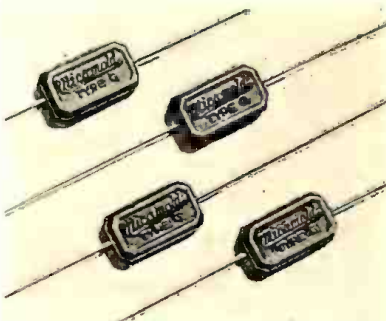
Compact electrolytic

★ Etched-foil type electrolytic capacitor of extremely compact construction. Same electrical characteristics of larger units. Both terminals insulated. Cardboard sleeve insulates container. Hermetically sealed. Type BR—available in 4, 8, 12, 16, 20, 40 mfd. at 150 volts DC and 8 mfd. at 450 volts. Cornell-Dubilier Electric Corp., S. Plainfield, N. J.—RADIO TODAY.



Sprague push-button tuners

★ Trimmer condenser type push-button tuners for use only by radio manufacturers in new sets. Units available in two circuits with front or back adjustments, with four, six, or eight buttons; 2 x 6 back adjusted unit is illustrated. Three circuit types for back adjustment only with six buttons. Units available with self-contained changeover or disconnect switches. Complete drawings and technical data available to set engineers. Sprague Specialties Co., North Adams, Mass.—RADIO TODAY.



Micamold mica condensers

★ Midget type bakelite molded condenser with mica dielectric. Made up of metal plates that are integral with lead terminals—clamped in steel channel. Available in capacitances from 2½ to 50 mmf. Tolerance can be held to plus or minus 1 mmf. Micamold Radio Corp., 1087 Flushing Ave., Brooklyn, N. Y.—RADIO TODAY.

24-watt P.A. system

★ Portable sound system with 24-watt undistorted output. Bass and treble tone compensators. Dual 12-inch speakers. Input channels permit simultaneous use of 2 mikes and phono pick-up. Modernistically designed amplifier with choice of colors. Bell Sound Systems, Inc., 61 E. Goodale St., Columbus, Ohio—RADIO TODAY.

SHATTERING VIBRATIONS

FROM GIANT GUNS!

**- BUT
RAYTHEONS
CAN "TAKE" IT!**

The ear-splitting roar of giant guns . . . shattering vibrations that fairly rock the earth . . . these are the daily conditions under which Raytheon's tubes go through with "flying colors" in army communications!

That's because Raytheons are built *right* . . . built to stand up and "take" it! Built by the greatest engineers in the country—and with best materials available! A fact known by engineers of leading licensed set manufacturers who constantly use Raytheons as standard equipment. Consider Raytheons for your replacements.

Enjoy greater permanent tube profits.

RAYTHEON

CHICAGO
ATLANTA

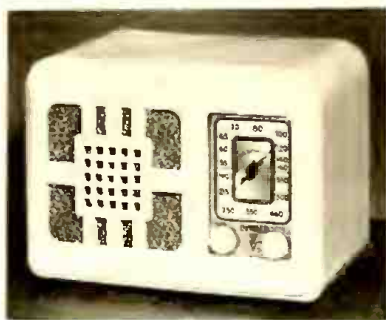
NEWTON,

SAN FRANCISCO
NEW YORK

MASS.

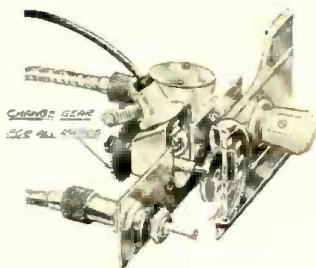
"WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS"

MORE NEW THINGS



DeWald 5-tube set

★ AC-DC table type radio featuring "Wonder Tone" grille which blends high and low frequencies for even distribution throughout the room. Plastic cabinet in walnut or ivory measuring 9 x 5 $\frac{7}{8}$ x 6 $\frac{1}{2}$. Beam power output tube. Model 530. DeWald Radio Co., 440 Lafayette St., New York, N. Y.—RADIO TODAY.



Star auto radio controls

★ Control unit to fit all cars—100 per cent universal. Fits all radios regardless of tuning ratio. Fits all condensers regardless of rotation direction. No holes to drill or file. Adjustable so as fit all panel thicknesses. Custom matched plates to fill all 1935-8 cars. Star Machine Mfrs., 13 E. Bay Ave., Bronx, N. Y.—RADIO TODAY—see also advt. p. 50.



Halldorson amplifier kit

★ 35-watt amplifier kit using beam power tubes and overall inverse feedback. Uses phase inverter tube and has microphone mixing circuits. Uses vacuum sealed transformers. Instruction sheet furnished free upon request. Halldorson Co., 4500 Ravenswood Ave., Chicago, Ill.—RADIO TODAY.

Aircraft microphone

★ Universal aircraft microphone is light weight—8 ounces including the cable, body is of dural, instrument includes a special press button switch for single or double circuit or any special switching arrangement that may be required. Universal Microphone Co., Inglewood, Calif.—RADIO TODAY.



Hi-voltage capacitors

★ Filter condensers for transmitters and hi-power amplifiers. Type TX illustrated housed in compact rectangular containers with ceramic stand-off insulators. Type TZ supplied in round metal cans with threaded necks for inverted mounting or upright mounting using a ring bracket. Impregnated with Mallory compound which is not a wax or like oils now used. Unusual resistance to heat and extremely stable DC resistance. P. R. Mallory & Co., Indianapolis, Ind.—RADIO TODAY—see also advt. p. 1.



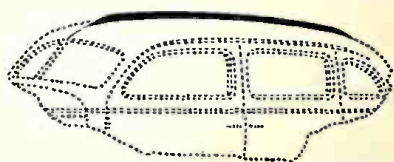
Ball type dynamic mike

★ Dynamic microphone having directions and non-directional characteristics controlled by a swivel bracket. Ball shaped housing. Sensitivity of -52 DB. 50,000 or 200 ohm impedance. Flat frequency response from 30-10,000 cycles. Equipped with cable connector and 25-foot cable. Model MK-35—list \$34.50. Transducer Corp., 30 Rockefeller Plaza, New York, N. Y.—RADIO TODAY.



Hush-tone radio control

★ Remotely operated switch for silencing radio set. Permits user to control the volume of the radio at a distant point by merely pressing a switch. Equipped with 15-foot cord on a self-tripping, self-winding reel. With this device the listener can squelch undesirable announcements without going to radio. List \$7.50. Radio Reel Co., Washington Bldg., Tacoma, Wash.—RADIO TODAY—see also advt. p. 45.



Airmaster auto antenna

★ Antenna formed to fit the contour of the car. Only 1 $\frac{1}{2}$ inches high with flexible wire completely encased in molded rubber in modern design. Runs longitudinally along the entire length of the top. One piece construction—cemented to top of car. List \$4.95 to \$5.65. Renson Products Co., Conshocken, Pa.—RADIO TODAY.



Magic-phone interphone

★ Two-way wired interphone system for 2 stations—model SP2 illustrated. On and off switch, volume control, and talk listen switch. Uses 6 $\frac{1}{2}$ inch PM speaker. Model SP4 is a master system, handling 4 remote stations, and model SM5 is a fully selective 5 station system. Comun-a-phone Systems, Inc., 1175 Broad St., Newark, N. J.—RADIO TODAY—see also advt. p. 56.

Focussing headlight

★ Flash-light type focussing lamp for wearing on hat. Ideal for electricians and radiomen when working in dark places. Powered by five flashlight cells. Battery container fastens to belt or slaps in pocket. Type 129. Burgess Battery Co., Freeport, Ill.—RADIO TODAY.

NEW!

-AN A. C. OSCILLATOR THAT HOLDS ITS ACCURACY

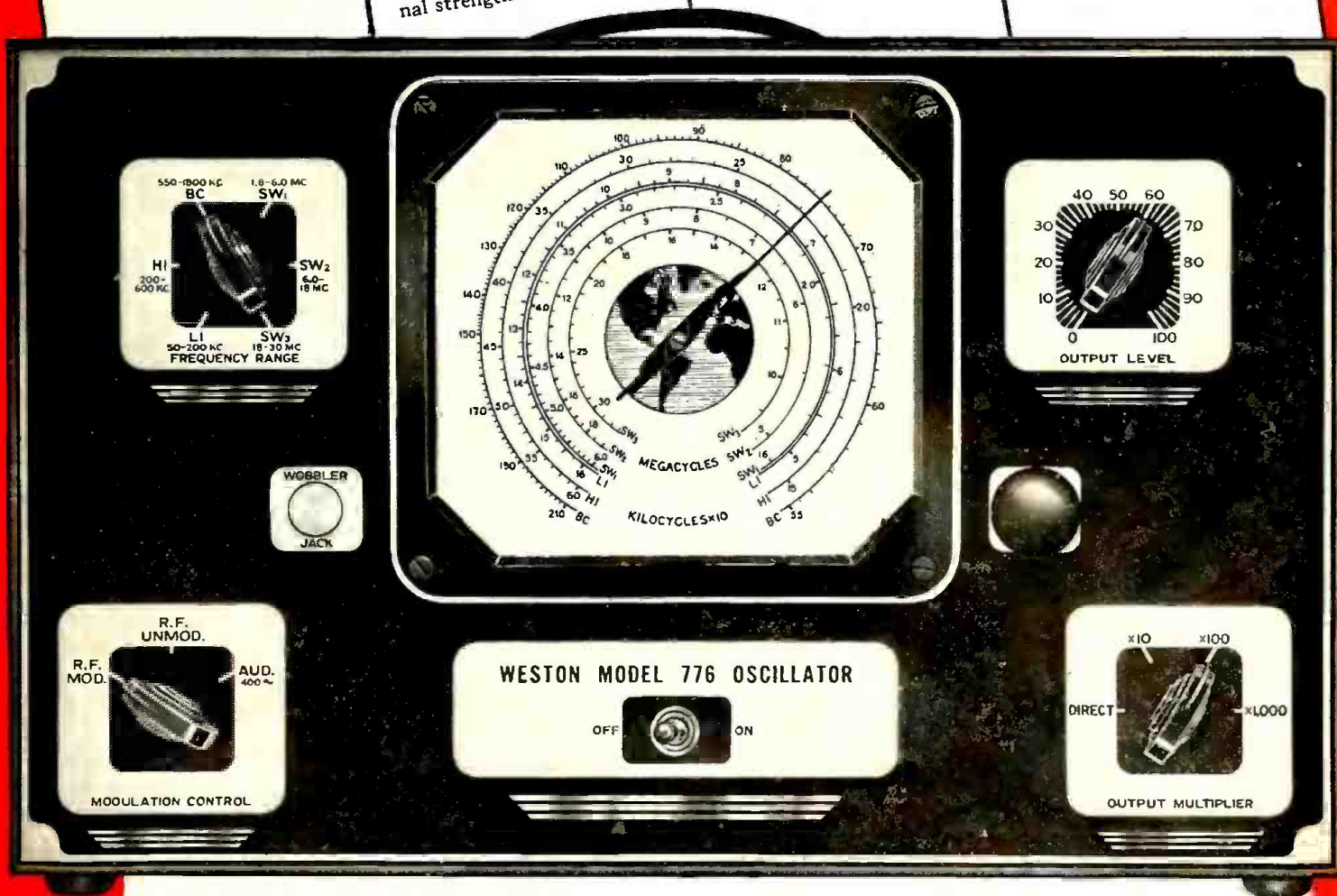
(Individually hand calibrated dials)

ACCURATE frequency calibration assured by large 330° fully visible hand calibrated dial! (Not troublesome trimmers or padders used.)

UNIFORM output level regardless of frequency assured by new WESTON A.A.C. circuit. Tuning oscillator or shifting frequency band does not increase or decrease signal strength.

CONSTANT signal free from drift or shift in frequency assured by A. A. C. circuit which automatically regulates mutual conductance of oscillator tube.

COMPLETE attenuation of signal on all bands assured by new WESTON design, thorough double shielding, and elimination of line feedback.



The above 4 features, heretofore available only in high priced laboratory oscillators . . . yet recognized as essential for thorough radio servicing . . . now are available *for the first time* in a practical service oscillator, at a *serviceman's price*. The new WESTON Model 776 Oscillator gives you all "four," *plus 12*

additional features and refinements. In addition, it has been styled to match other recent and widely popular instruments in the WESTON line. You will want all the facts on Model 776 . . . a serviceman's oscillator that fully meets WESTON'S high standards of accuracy and durability. The coupon will bring you complete literature.

WESTON Instruments

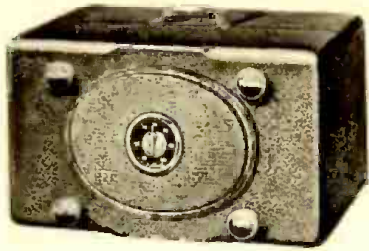
Weston Electrical Instrument Corp.,
597 Frelinghuysen Ave., Newark, N. J.

Send data on Model 776 Oscillator.

Name

Address

MORE NEW THINGS



Portable receiver

★ 6-volt and 110 AC portable type receiver. 6 tubes. Tunes 550-1,500 KC and operates from short antenna. Low battery drain of less than 3 amperes. 6-inch PM dynamic speaker. Variable tone control. Housed in metal case. Motorola Companion—list \$49.50. Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill.—**RADIO TODAY**—see also advt. Cover IV.



Push button tuner

★ Six button dual circuit trimmer type automatic tuner. Selects 5 stations and has disconnect button. Unit connects across 2-gang condenser. Uses three wires for connection. Housed in metal can for installation on all sets. List, including station tabs—\$6.60. Automatic Devices Mfrs., 4243 W. Ogden Ave., Chicago, Ill.—**RADIO TODAY**.



Univex exposure meters

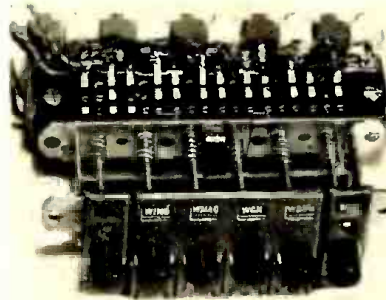
★ Low-cost exposure meter for use with any movie camera. Eliminates guesswork in taking movies. Automatically compensates for frames per second, film speed, lens speed, filter factors, and type of subject. Also a photometer for still and candid cameras is avail-

able. List \$1.95. Universal Camera Corp., 32 West 23rd St., New York, N. Y.—**RADIO TODAY**—see also advt. p. 44.



Low-cost sound system

★ Five-watt sound system complete with microphone, tubes, speaker, speaker housing. Complete unit ready to operate with mike cable and stand. Vocagraph Model 30-05—list price \$50. Electronic Design Corp., 164 N. May St., Chicago, Ill.—**RADIO TODAY**.



Harbray P.B. tuning unit

★ Condenser type push button adapter unit for use on any receiver having a 2-gang condenser. Unit has a self-contained changeover switch which disconnects condenser gang and cuts in the switch operated trimmer condensers. Buttons are available for 5 stations, and a 6th button operates the changeover switch. Complete with escutcheon and call letters. List \$7.50. Harbray Co., 4701 N. Sheridan Rd., Chicago, Ill.—**RADIO TODAY**—see also advt. p. 47.

Howard communications receiver

★ 12-tube all-wave receiver designed for communications reception. Tunes 540-65,000 KC in 6 bands. Continuous electrical band spread afforded by separate 3-gang condenser. Has tuned R.F. stage on all bands except 5 meter. Calibrated "R" meter. Sensitivity of 1 microvolt or less on all bands except 5 meter which is about 10. Dual I.F. channel—1,560 KC for 5 and 10 meters—465 KC for other



bands. Model 450—net \$100.45 including crystal filter. Howard Radio Co., 1731 Belmont Ave., Chicago, Ill.—**RADIO TODAY**.



Hickok photocell

★ Dry-disc self-generating type of photocell. Designed for use with a microammeter for measuring light intensities. Housed in bakelite case—active surface 1½ inches in diameter. Sensitivity of 6 microamperes per foot candle of light. Prong spacing fits standard 4-prong tube socket. Hickok Electrical Instrument Corp., DuPont Ave., Cleveland, Ohio—**RADIO TODAY**.



Auto antenna resonator

★ Matching resonator designed to coordinate the auto antenna and radio sets so as to give optimum performance. Unit is a tapped inductance giving the choice of 7 inductance values. Antenna can be made to give extra gain from 50 to 500 per cent over a fairly wide band of frequencies. Type M1—list \$1.50. Radiart Corp., 113th St., Cleveland, Ohio—**RADIO TODAY**—see also advt. p. 54.

"WATCH ANDREA"

Radio's Smart Money for
1938
is on FRANK ANDREA!

PUSH-A-BUTTON SETS, AS ANDREA MAKES THEM, ARE TROUBLE-PROOF

PUSH-A-BUTTON tuning can be as sure, accurate and trouble-proof as dial tuning. Advanced engineering and skillful designing can assure such operation. Andrea Push-a-button sets have *proved* that!

Inferior automatic tuning can cause the radio dealer many headaches, can increase his service costs and eat into his profits. But that is not automatic tuning as Andrea makes it in the popular Andrea Push-a-button models.

That is *one* reason why radio's smart money for 1938 is on Frank Andrea. The radio trade knows Frank Andrea as a leader in the technical development of radio reception for nearly 20 years. They know the high quality receivers made by F. A. D. ANDREA, INC., under his management and ownership from 1920 to 1932. They know that Andrea Radios, manufactured during the past four years exclusively for the overseas trade, have already won a reputation throughout the world as the finest sets produced in America. It was inevitable that ANDREA would lead in *perfected*, instantaneous, automatic push-a-button tuning.

Frank Andrea . . . on "Radio Profits"

Much of the success of F. A. D. ANDREA, INC., under my management and ownership from 1920 to 1932 was due to our close cooperation with our jobbers and dealers under merchandising methods which assured them of adequate profits, and protected them from destructive price competition and end-of-season dumping. Today, Andrea Radio Corporation continues these same sound principles. Your inquiries about territories still open will be treated in complete confidence.

(signed) F. A. D. ANDREA

Andrea Radio

ANDREA RADIO CORP.
4823 48th Ave., Woodside, L. I., N. Y.

Get **ALL** These Features!

SPECIFY

Utah

VIBRATORS



- ✓ Exclusive sulphur-free molded rubber liner eliminates chemical corrosion on metal parts—particularly contact points.
- ✓ Rubber liner consists of two parts beveled to make a closer fit and suppress noise.
- ✓ Lower liner molded to fit in order to hold mechanism in position in center of vibrator shield, supporting leads and preventing undue vibrations.
- ✓ Exclusive flat frame provides simpler construction and more permanently rigid mounting for contact arms.
- ✓ Short leads are clamped and held steady against vibrator frame eliminating vibration and preventing breakage of leads. Reduces radio interference usually resulting from long leads.
- ✓ Tapered reed prevents undue strain and equalizes bending providing longer reed life.
- ✓ Special design provides right degree of wiping action to keep pure tungsten contact points clean, but not enough to cause excessive wear.
- ✓ Highest grade mica insulators.
- ✓ Stack is held to frame with TWO screws making a mounting with less likelihood of misalignment.

UTAH RADIO PRODUCTS CO.
CHICAGO, U. S. A.

BUENOS AIRES — UCOA RADIO PRODUCTS CO.

"16 YEARS OF LEADERSHIP"

CATCH LINES FOR APPLIANCES

Headlines for newspaper ads, circulars, letters, etc.

★ Addressing the buying public on the subject of new electrical appliances, dealers have learned to start out with something which has a special tug. The words used at the head of an advertisement, whether it's a letter, a circular or a newspaper display, must be fitted together in 1938 style.

A national survey of appliance dealer advertising reveals that the majority of the sales phrases are being furnished by the manufacturers. However, dealers often branch out to make an appeal which is particularly appropriate to their areas. Some of this work is striking and full of promise.

Herewith are listed catch lines from dealers in all parts of the nation. Some are circulated nationally by manufacturers, others are original with the appliance shops named:

Take the Irk Out of Her Household—McCurdy's, Rochester, N. Y.

Sale-of-the-Season on the Mixer-of-the-Season—Higbee Co., Cleveland, O.

Twice As Many Things at Your Finger Tips—L. S. Ayres & Co., Indianapolis, Ind.

Wake Up and Live!—Florida Light & Power Co., Miami, Fla.

The World's Cheapest Per-Reason (for owning) Washer—Cumberland County Power and Light Co., Portland, Me.

Personal Proof in Homes Like Yours—Frank's, Fort Wayne, Ind.

Runs Less, Costs Less to Run, and



Grunow's J. J. Davin shown with new Thermene refrigerator.

Proves It—Central Distributing Co., Indianapolis, Ind.

Quiet as an Okapi (a jungle animal)—New Jersey Public Service, Jersey City, N. J.

Women of 102 Cities Told Us What They Wanted—Poole's, Wilmington, Del.

The Very Acme of Cleanliness—Famous-Barr, St. Louis, Mo.

Discover This Refrigeration Thrill—Goldman & Adamson, Reading, Pa.

He Turned the Switch and I Was Surprised—Michael & Barron Co., South Bend, Ind.

Is Your Wife Wrinkled and Faded From Kitchen Drudgery?—Duke Power Co., Winston-Salem, N. C.

A Hint to Husbands—Riedling Music Co., Albuquerque, N. Mex.

Give Your Home That Something Extra—Heslops, Wheeling, W. Va.

Enemies of Gloom—Union Electric Co., St. Louis, Mo.

You'll Call It a Miracle—Kansas City Power & Light Co., Kansas City, Mo.

Shop While the Organ Plays—Rhodes, Seattle, Wash.

Ironing Wear You Out?—Walford Electric Co., Missoula, Mont.

Are You THINKING? (of a new washer, ironer, etc.)—Wright Bros. & Rice, Pomona, Cal.

At Last, a Washing Machine That You Can Trust—At a Price that You Can Afford—C. F. Wings, New Bedford, Mass.

Washers Will Open Her Eyes—Modern Appliance Shop, Saginaw, Mich.

I'm Earning Money at Home—Duke Power Co., Winston-Salem, N. C.

Her Heart Is Where Her Home Is—Hutzler Bros. Co., Baltimore, Md.

Elk's Club Kitchen Is All Electric—Tacoma Light Depot, Tacoma, Wash.

Dangerous Days Ahead—Winnemucca Mercantile Co., Winnemucca, Nev.

A Story As Fresh as the Morning Headlines—Gimbel's, Pittsburgh, Pa.

Career Homes—Frederick & Nelson, Seattle, Wash.

Startling News About Your Ironing—Chas. E. Wells Music Co., Casper, Wyo.

For showing a slick model of the "insides" to refrigerator prospects.

For "elevating" your merchandise on a neat platform.

PLAN YOUR
Photos from a new Norge film.



Rushed Across the Continent—
Breuner's Sacramento, Calif.

*Carload Purchase—*Meier & Frank,
Portland, Ore.

We've Been Waiting Four Weeks
for More of These—Sherer's, Wor-
cester, Mass.

*We Present to the Women of Sagi-
naw—*Walz Hardware Co., Saginaw,
Mich.

Ask Your Neighbor—She Owns
One—Finke's, Evansville, Ind.

*Small Ironing Problems—*Camden,
N. J., Public Service.

As Effortless as Rocking a Cradle—
Rhodes Bros., Tacoma, Wash.

Thrill to the Thrift of Electric
Cookery—Graybar Electric Co., Allen-
town, Pa.

Thoughtful Husbands—Take Note
—Kay's Dept. Store, Los Angeles,
Calif.

*You've Got Something There—*Dele-
ware Power & Light Co., Wilming-
ton, Del.

*Notice: 1938 License Plates—*Les
Wheeler, Buffalo, N. Y.

You Get One Full Day Off Every
Week—Hooper's, Portland, Me.

*Lectric Lena—*Narrangansett Elec-
tric Co., Providence, R. I.

*Demonstrations Daily at Quacken-
bush's —* Quackenbush's, Paterson,
New Jersey.

*Handsome Than Ever—*Noth-
nagle's, Bridgeport, Conn.

The Choice of 9,000 Louisville
Women—*Ask Your Neighbor—*Ben-
singer's, Louisville, Ky.

Paging Mr. Husband—Whose Wife
Hasn't One—Philadelphia Electric
Co., Philadelphia, Pa.

★ On Feb. 22, *Frigidaire* will open
"the fightingest advertising schedule
the company ever released." The drive
will include newspapers, magazines,
outdoor, window display and radio
spots, and according to *Lee A. Clark*,
household advertising and promotion
manager, will be centered around a 4-
point improvement in design. One of



R. E. Densmore, one of Norge's sales
veterans, has been promoted to the
post of general field sales manager for
the firm.

the features of the campaign is a "clos-
ing weapon" in the form of a large
money bag. It dramatizes the four-
way savings theme.

★ Moser & Suor, Inc., the Norge
jobbers of 2609 Walnut St., Kansas
City, Mo., have changed their name to
Moser-Keller, Inc. J. G. Suor has an-
nounced his retirement; Don Moser is
president, Don Keller vice-president
and general manager, Tom Condon gen-
eral sales manager, Paul Dow assist-
ant sales manager in charge of adver-
tising and sales promotion. Moser-
Keller, Inc., has a branch in Wichita,
Kansas, at 133 N. Water St.

★ Progress Corp., 521 Fifth Ave.,
New York, national distributors of
Packard Lektro-Shavers, have an-
nounced winners in the big "Sales and
registrations" contest among proprie-
tors and their salesmen. *Lewis Basch*,
Toledo, Ohio, was first prize winner—
a Packard 8 sedan. Thousands of
other prizes were given away and the
firm will announce a new contest
shortly.

★ *Bendix Home Appliances, Inc.*,
will spend \$691,000 for cooperative
newspaper space with dealers in 1938,
in addition to the \$1,000,000 already
scheduled for national advertising, ac-
cording to advertising manager *Wil-
liam H. Leiminger*.

★ *Magic-Aire, Inc.*, 1734 Ivanhoe
Road, Cleveland, Ohio, is a new com-
pany recently formed to take over the
production and distribution of the
Magic-Aire line from the Cleveland
Suction Cleaner Co. The firm recently
added a new low-priced cleaner to the
line.

★ *W. Neal Gallagher*, president,
Automatic Washer Co., Newton, Iowa,
has been elected president of the
*American Washington Machine Manu-
facturers' Association*.

★ *R. H. McMann, Inc.*, New York
City distributors of *Gibson* refrigera-
tors and *Westinghouse* radios, recently
held a 5-day preview of the new *Gibson*
Freezr Shelf boxes.

★ *Jason Hurley* has been appointed
national field sales manager and placed
in charge of the field expansion pro-
gram of the *Hurley Machine Co.*, Chi-
cago, maker of *Thor* household wash-
ers, ironers, dryers, vacuum cleaners
and ventilating fans.

★ The new district headquarters
for *Frigidaire* at 4 Cummins Station,
Nashville, Tenn., have opened for busi-
ness, with *Fred M. Davison*, district
manager, in charge. Others on the staff
are *Virgil Wingate*, *John Hopkins*, *I. R. Ogglesvy*, *S. M. Marvick* and *Carl Hoebner*.

New headquarters for *Frigidaire* in
Alabama and Northwest Florida were
opened at 600 N. Seventh St., Birming-
ham, Ala., with *L. W. Curl* as man-
ager. On the staff here are *P. S. Den-
nison*, *Earl Powell*, *Marion Robertson*,
Robert Reid, *W. F. Anderson*, *J. C. Hortline* and *A. M. Fettus*.

Frigidaire held 36 sales conventions
in key cities throughout the country
in January and February, with *Frank R. Pierce*,
manager household division, and general chairman of conven-
tions, supervising the activity.

SALES TIME

For using actual pieces of
glass wool in sales talks.

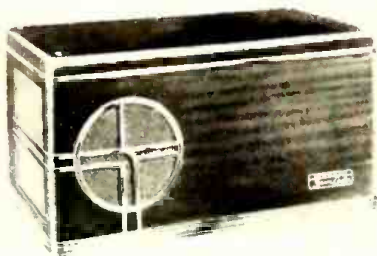
For demonstrating 1938 features
as a series of surprise gadgets.

Stewart-Warner photos courtesy Chicago Film Studio



APPLIANCE ACTIVITY

Johnson space cooler



★ Household and office appliance to lower room temperatures, to clean and to dehumidify. Metal cabinet 7x15x13 in. designed for window sill. Cooling is done by circulation of outside air over an oversize condenser. Electric motor is GE rubber-mounted, belt-tightener type. Fan rated as handling nearly 200 cu. ft. of room air per minute. \$159.50. Johnson Motors, Refrigeration Division, Galesburg, Ill.—RADIO TODAY—see also advt. p. 23.

Magic-Aire cleaner

★ New addition to the line formerly made by the Cleveland Suction Cleaner Co. is the low-priced Model 160. For general use in cleaning upholstery, autos, pillows, mattresses, etc. as well as floors and high places. Ball-bearing 110-volt (standard) motor



Radio men find it easy to display smaller items. Here's a new Univex.

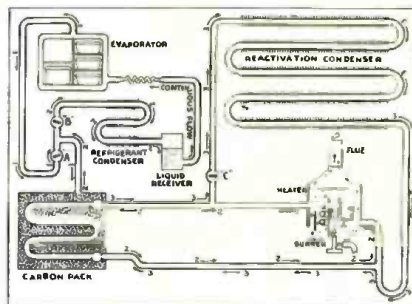
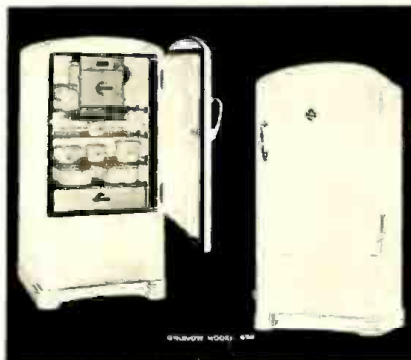
mounted with dust bag on 4 non-marring casters. Eight-ft. flexible hose, and a 25-ft. cord provide large cleaning radius. Floor tool plus cleaning nozzle for other uses are standard equipment. \$39.50. Magic-Aire, Inc., 1734 Ivanhoe Road, Cleveland, Ohio.—RADIO TODAY.

Grunow Thermene

★ New line of gas refrigerators includes the three models 558G, 658G (illustrated herewith), and 758G.

Accompanying diagram shows the cycle of operation of the new system. Arrows identified as "No. 1" relate to the first, or the refrigerating stage; "No. 2" relate to the second, or the heating stage; and "No. 3" to the cooling stage.

Model 658 has 14.2 sq. ft. of shelf area, makes 6 lbs. of ice, has a shipping weight of 485 lbs. Sug-



gested f.o.b. factory list price, \$199.50. General Household Utilities Co., 2638 N. Crawford Ave., Chicago, Ill.—RADIO TODAY.

Air-conditioned refrigerators



★ Continental Corp.'s line for 1938 includes 3 super air-conditioned models, 2 deluxe air-conditioned models, and 7 conventional models with conventional cooling. Model F-30, shown herewith, has shelf area of 12.1 sq. ft., 5 ice cube trays making 7.5 lbs. of ice, and a frozen storage capacity of 55 lbs. Besides the featured frozen storage, the model has balanced humidity control, eliminates the use of hydrators, and provides constant air movement. List price, \$389.50. Continental Corp., Fond du Lac, Wis.—RADIO TODAY.

Cool-Circle-Ator table



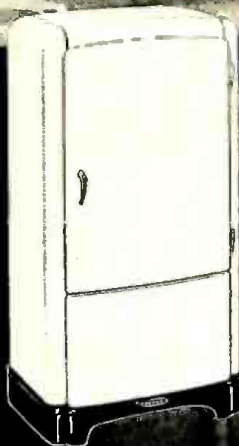
★ A new air re-circulator in the form of a table. A special design on the blades picks up cool air from the floor area for re-distribution. All mechanical parts are enclosed in an ornate grille. Finished in brown and ivory. Top is removable and may be used as serving tray. Kisco Co., Inc., 4414 W. Papin St., St. Louis, Mo.—RADIO TODAY.



For intensive sales action in 1938, Paul H. Puffer has been promoted by Norge to domestic refrigeration sales managership.

NORGE

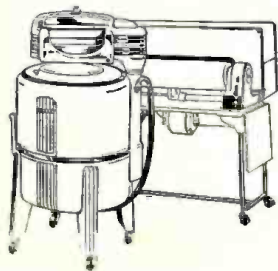
HOME APPLIANCES



ROLLATOR REFRIGERATION . . .
Protected by 10-Year Warranty on
the 3-moving-parts Rollator Com-
pressor.



**CONCENTRATOR GAS AND
ELECTRIC RANGES . . .** Advanced
styling plus many special conven-
ience features.



**AUTOBUILT WASHERS AND
DUOTROL IRONERS . . .** America's
first fully styled home laundry line.



A SURE SIGN OF SUCCESS IN THE APPLIANCE BUSINESS

A SIGN OF BETTER PRODUCTS . . . Norge leads again with a
new line of home appliances that are the greatest in Norge-
history. Products backed by new, tested methods of *visual sell-*
ing—stronger advertising and sales promotion—more dramatic
store and window displays.

A SIGN OF YEAR 'ROUND PROFIT . . . There is always sales
activity in the Norge line of Rollator Refrigerators, Concentrator
Gas and Electric Ranges, Autobuilt Washers, Duotrol Ironers,
and package heating and commercial refrigeration equipment.
High product turnover and liberal finance plans keep a Norge
Master Merchant's capital working all the time. Get the
facts about the valuable Norge franchise today.

NORGE DIVISION *Borg-Warner Corporation, Detroit, Michigan*



**MAIL
TODAY!**

*Free
to Appliance
Dealers*

A 64-page volume on appliance selling and promotion.
Describes a complete plan of store operation. No matter
what products you sell, this book will show you how to
make more money in the appliance business.

NORGE DIVISION *Borg-Warner Corp.*,
660 E. Woodbridge St., Detroit, Mich.

*I would like to receive a copy of your new book for
appliance dealers.*

NAME
ADDRESS
CITY STATE

DYNAMIC TESTING

(Continued from page 33)



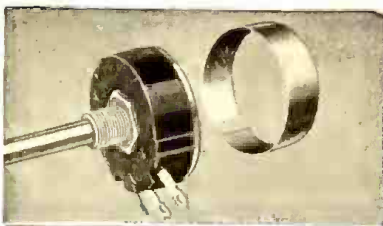
because of the number of curves and combinations making it possible to give my customers a perfect control at all times."

Jack Vaughan

Manager Service Dept.
Broadway Dept. Store
Los Angeles, Calif.

Proud as a peacock, Old Man Centralab adds, this West Coast testimonial to the hundreds he has received from coast to coast . . . from air lines and men in the tropics. Wherever you are . . . that service job is no longer a problem if you solve it with CENTRALAB Controls and fixed resistors.

Get the New Volume Control Guide



STANDARD RADIOHM

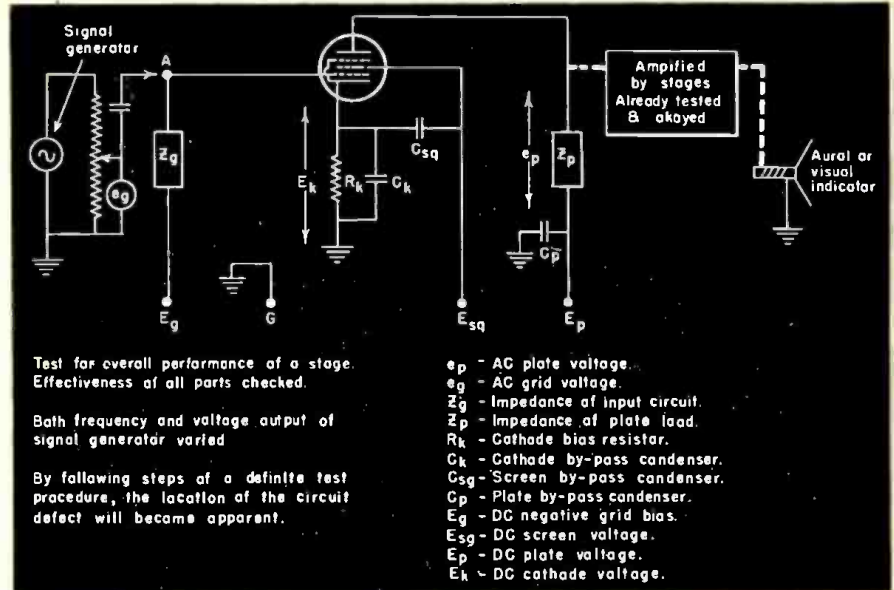
Centralab

Milwaukee, Wis.

Division of Globe Union, Inc.

BRITISH CELTRALAB, Ltd.
Canterbury Road, Kilburn
London, N.W.6, England

FRENCH CENTRALAB CO.
118 Avenue Ledru-Rollin
Paris XI, France



Dynamic servicing simultaneously tests all values of parts and voltages in a stage and determines if they are working together for best results. Time required for diagnosis reduced to a minimum.

type 45 output amplifier with a 56 volt bias and 275 volt plate supply, while a second one uses 31½ volts bias with a plate potential of 180. If the manufacturer has chosen the proper output load resistance and driving voltage, either set-up will be okay. Regardless of what the actual conditions may be, dynamic radio testing will indicate whether or not these operating conditions are correct. And properly used, dynamic testing will also tell what the causes of improper operation are.

With dynamic testing, the serviceman can be sure that the radio set is operating properly. He can be sure that there are no defects left to cause a complaint within a few days. Besides insuring better quality of repairs, dynamic radio servicing will save time in the diagnosis of radio sets.

REPAIRING & REPLACING AUTO RADIO CABLES

★ Fitting new auto radio cables and casings is an easy task if the shop is equipped with a remote-o-cable replacer tool.

The machine manufactured by J. F. D. Mfg. Co. of Brooklyn, N. Y., will remove the old fittings and replace them on new shafts. Also it will cut the flexible shafting to the exact length and swedge it to prevent unraveling.

With an assortment of shaftings,

casings and fittings, the auto radio-man is ready for any job. It is possible with the remote-o-cable tool to make to order any desired flexible cable to fit any control head and radio set. And just as important is the fact that the job can be completed in a few minutes. Also standard cable furnished with the radio sets can be shortened to eliminate excess length, permitting maximum tuning efficiency.

WHAT'S A D.B.?

★ Do you know when the vast system of telephones was still in its infancy, electrical engineers realized the need for a unit to describe the amount of attenuation between the transmitter and the receiver? They used as a standard, the amount of attenuation or "drop in voice level" of one mile of standard telephone cable. This was termed "a transmission unit" or "T. U."

Later the name was changed to the "bel" as a mark of honor to the inventor of telephone, Dr. Alexander Graham Bell. Within its limited application, the bel proved quite satisfactory until the advent of the "wireless age," and at that time it was necessary to decimate the bel to one-tenth of its original value and this new unit was called the decibel, or "one-tenth bel."

The decibel does not represent any definite quantity of electricity, such



**RIDER BOOKS BANISH
Bewilderment**

**"RIDER'S
Out Front Again"**

*Says Service Manager
of Set Manufacturer*

Banish bewildering complexity of modern service problems with up-to-date Rider Books.

ALIGNING PHILCO RECEIVERS—New! Authentic instructions for aligning ANY of the 8,000,000 Philcos. Over 160 pp. \$1.00 Only.

CATHODE-RAY TUBE AT WORK—Complete, practical, written for servicemen. Information on Oscillograph, etc. 336 pp. \$2.50 450 Ill. 2

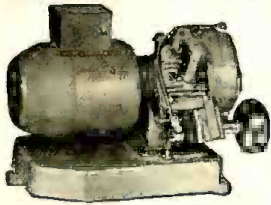
"That extra HOW IT WORKS section with the new RIDER MANUAL Volume VIII, certainly puts Rider out front again! It makes clear by practical example the underlying theory you must understand when up against the increasingly complicated 1938 receivers."

Remember! Volume VIII includes in addition, 1650 pages of essential service data on 1715 models of over 100 manufacturers—the most comprehensive service information available, and the price is the same as for last year—\$10.00!

JOHN F. RIDER, Publisher
1440 BROADWAY
NEW YORK CITY

Remember YOU NEED ALL **8**
Rider MANUALS

**"PINCO" THE ONLY
COMPLETE
GAS-O-LECTRIC
POWER PLANT
LINE**



**RED TOP
COMBINATION A.C.-D.C.
POWER PLANT**



**GOLD CROWN
HEAVY DUTY
POWER PLANT**

**TIME NOW FOR
POWER PLANT
SALES!**

Here is an exclusive dealer-jobber line of portable electric light, power and battery-charging plants, priced for quick sale and big profit. "PINCO" combination AC-DC and DC RED TOP and GOLD CROWN heavy duty power plants are a necessity for millions of farms, homes, industrials, etc., where "city" electricity is not available. Provide instant power for lights, radios, electrical equipment and appliances. Now is the time to cash in on this waiting market. Write for literature and discounts.

**One Line for
Every Requirement**

"PINCO"—the only complete power plant line! Full price range; 100 to 2000 watts; alternating or direct current; air or water cooled; remote control; filter and ignition shielding; push button starting.

PIONEER GEN.-E.-MOTOR CORPORATION
Dept. No. R-2B, 466 West Superior Street, Chicago, Illinois

Please send me complete information on:

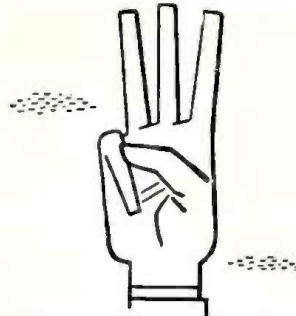
"RED TOP" "GOLD CROWN" Converters Dynamotors

Name

Address

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

3 PLUS FEATURES



THE TUNG-SOL CONSIGNMENT PLAN

First—You carry an adequate stock of the long-established, well-known brand of Tung-Sol quality tubes.

Second—You are protected. Only carefully located high class retailers who maintain prices, can qualify for the Tung-Sol franchise.

Third—You don't pay for the tubes until they're sold. This is one of the outstanding features of the Tung-Sol plan.

. . .

Our ability to finance dealers' stocks is utilized to make them Tung-Sol Retail Partners in fact as well as in name. You pay no premium for this financing.

That is why more and more high class retailers are writing to find out if they can qualify. If you haven't already inquired, call your Tung-Sol jobber. If necessary, write us for his name.

TUNG-SOL
Tone-flow Radio Tubes

TUNG-SOL LAMP WORKS, INC.
Dept. C Radio Tube Division

Sales Offices: Atlanta, Boston, Chicago, Dallas, Kansas City,
Los Angeles, Detroit, New York. Gen'l Offices, Newark, N. J.

SERVICE NOTES

as the ampere, or does it represent any definite electro-motive force such as the volt. It does not represent the power introduced into a circuit or the power derived from the circuit.

It does, however, represent the ratio of the power gain or loss in a circuit. All decibel measurements use as a reference point "Zero" D. B., which is considered for all practical purpose to be the threshold of hearing, although theoretically this is incorrect. Zero D. B. is considered as being .006 watt (6 milliwatts) and D. B. meters are calibrated to measure zero D. B. when 6 milliwatts are present on a 500 ohm line at 1,000 cycles.

ZENITH MODELS 6M193 AND 6M194

★ The 6M193-4 are auto sets with 6 tubes. 6M194 has external speaker of cowl or header type. 6M193 has internal speaker unit.

An extensive filter is used in the battery line to keep out ignition noise and isolate vibrator hash. A full-wave primary vibrator is employed.

All cathodes are grounded except the 6Q7G which is connected to a positive point on the voltage divider to provide grid bias. Fixed bias from across the audio filter choke is used for biasing the other stages.

I.F. alignment takes place at 252½ KC. Location of the oscillator and R.F. trimmers shown on chassis layout. The antenna trimmer is adjusted after the radio has been installed and attached to the aerial—align on a BC station about 1,400-1,450 KC.

STROMBERG-CARLSON MODELS 230 AND 231

★ Seven tubes including a cathode ray indicator are used in the S-C 230 and 231 receivers. Circuit shown on page 33 is conventional except for the use of a separate diode section to operate the tuning indicator.

Mixer screen and oscillator anode voltages are obtained directly from the rectifier side of the choke coil, filtering being obtained from the 10,000 ohm series resistors and associated filter condensers.

I.F. amplifier aligned at 465 KC. Oscillator trimmers and alignment frequencies are shown on chassis layout. Series oscillator padders located in upper right part of chassis layout. Nut adjustment for police band at 1,800 KC. Screw adjustment for BC band at 600 KC.

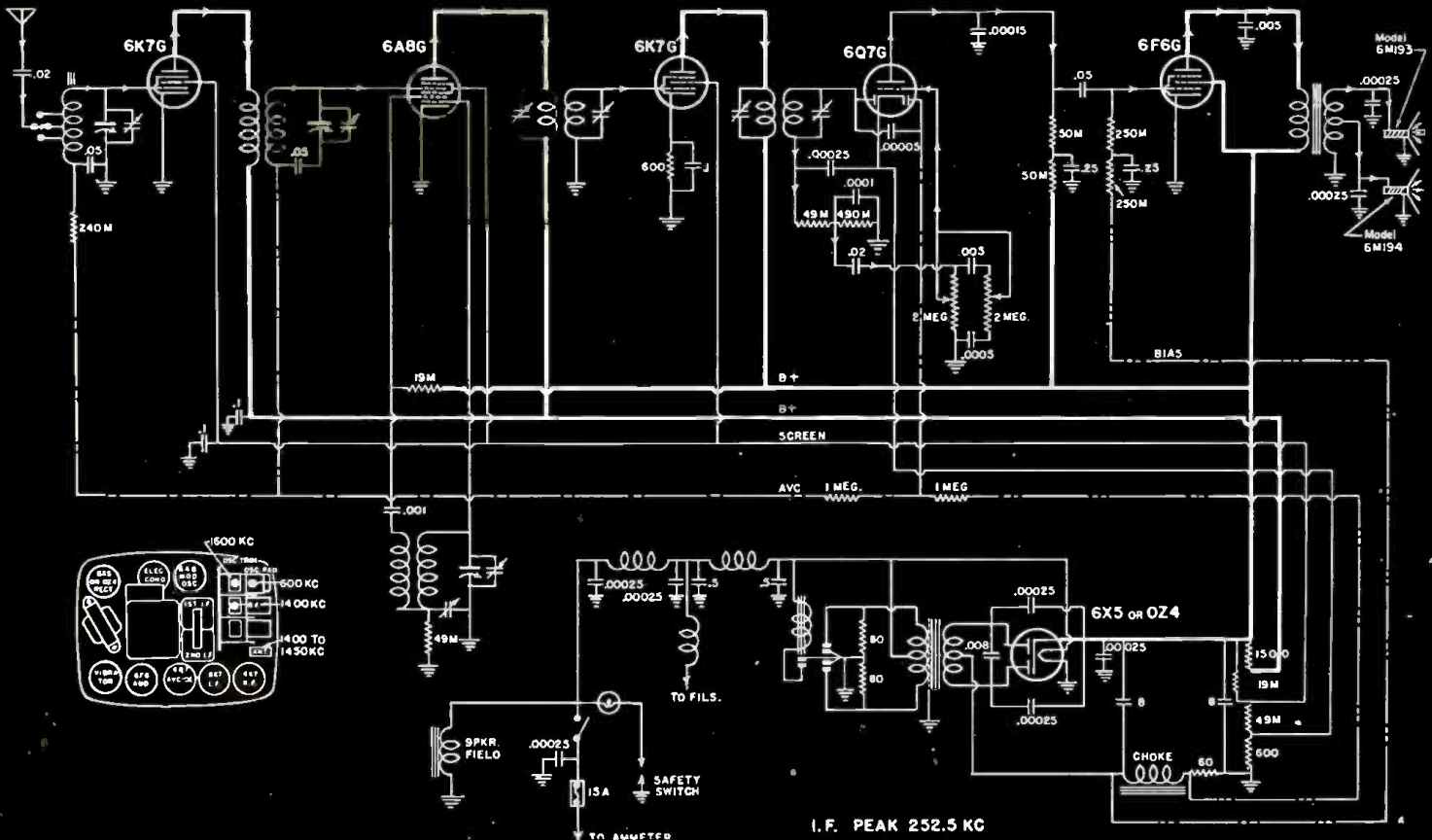
FAIR REPAIR CHARGES

★ What constitutes a fair price for repairing a radio set is one of the serviceman's biggest problems. If he charges too much, he is branded as a racketeer—and if he doesn't charge enough, it is impossible to make a decent living and buy that sorely-needed new equipment.

Letters from servicemen definitely show that they are interested in what are fair prices to charge. Some of the servicemen's organizations have set up schedules as yardsticks.

Dick Mattison of Casa Radio Co. of Brooklyn, N. Y., who writes a column in a local newspaper, states that the average cost of replacing a volume control should be "\$2.50, which includes a fair labor charge." While we agree with his statement that it is best not to attempt to repair a faulty control, we believe that his charge for this item, generally speaking, is too low.

ZENITH MODELS 6M193 & 6M194



First of all a control lists at \$1.50, except for the cheapest ones at \$1. In fact, some of the dual units may list for as much as \$2.50. Of course, if Mattison is thinking in terms of a \$1 control and having the customer bring the set to the shop, his charge may be okay if he has a low overhead. But there is the possibility that the control has a switch, which adds another 50 cents to the list price of the unit.

Up in Boston, the R.T.G. recommends a charge of \$5.50 for replacement of the volume control. If the job is done in the home, without removing the set to the shop, the cost is \$4.50, and if the customer brings the set to the shop, a further reduction brings the price down to \$3.50. If other parts are needed, they are replaced at list price plus \$1 for each additional part to cover labor. Basic prices range from \$3.50 for a by-pass condenser to \$11 for a power transformer in a 9 or 10-tube set.

The R.M.S. basic charges advocated by Philco start at \$1.50 for labor in replacing a volume control or resistor to \$2.50 for a power transformer. Parts are charged for at list. Transportation involved in picking up the job at the customer's home is extra.

Figuring in all overhead such as rent, heat, light, cost of operating auto, cost of test equipment, telephone, advertising and unproductive time, a serviceman's time is worth at least \$1.50 an hour if he is to be paid about \$25 a week. And picking up and delivering a customer's radio will average an hour. Therefore \$1.50 to \$2 for transportation is not excessive.

Naturally local conditions, such as neighborhood, competition and the like will determine to some extent what is a reasonable price.

PUSH-BUTTON ADAPTER UNITS

★ Recent widespread use of push-button tuning has built up such a demand for push-button radios that the service departments of dealers and jobbers have requested the low-down on how to use the new units on existing sets.

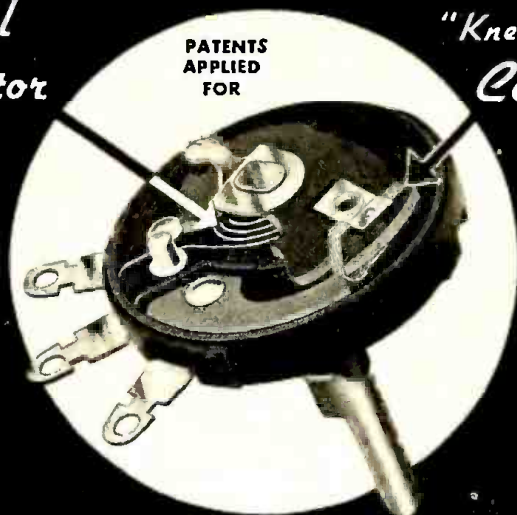
While it is the consensus of opinion that it is always best to sell new radios with push-button tuning, there are instances where a trimmer type push-button adapter unit might be advantageously added to a set.

At present there are four types of push-button adapter units that are designed for installation by servicemen. The first type is the converter unit, which employs a 1st det.-oscillator tube and has trimmer condensers for

*Silent
Spiral
Connector*



**NO SLIDE
NO FRICTION
NO NOISE**



**PATENTS
APPLIED
FOR**

*5-Finger
"Knee Action"
Contact*



**AMAZINGLY
SMOOTH
PERMANENTLY
QUIET**

SPECIAL REPLACEMENT *Metallized* CONTROLS

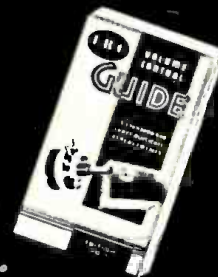
*with the New SILENT SPIRAL CONNECTOR
plus 5-FINGER "Knee Action" ELEMENT CONTACT*

Out goes noise at the two most critical points in any control!

Sliding, metal-to-metal contact—the most common cause of control noise—is definitely eliminated by the latest IRC engineering triumph, the Silent Spiral Connector. Because it provides positive, continuous electrical connection between the center terminal and volume adjustment arm, there is no chance for noise to originate. With element noise also eliminated by the famous IRC 5-Finger "Knee Action" Silent Element Contact, you have double assurance of the smoothest controls you've ever used—controls that are quiet and stay quiet!

**GET THIS
NEW GUIDE FREE!**

The most complete guide ever offered. Contains more than 200 pages listing IRC Standard and Special Replacement Controls for practically every receiver.



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MAKERS OF RESISTANCE UNITS OF MORE TYPES, IN MORE SHAPES, FOR MORE APPLICATIONS THAN ANY OTHER MANUFACTURER IN THE WORLD

✓ CHECK THESE REASONS FOR Increased Sales



MASTER UNIT
TUBE
TESTER



Model 1210-A
DEALER NET PRICE
\$22.00

1. Tests All Types of Radio Tubes.
2. A Single Unit . . . Not Part of a Compound Tester.
3. Portable and Flexible.
4. Maximum Protection Against Obsolescence . . . Hard to Misuse . . . Simple to Operate.
5. Additional Co-related Master Units Can Be Added as Business Expands or Circumstances Permit.

• Checks all types of radio tubes. Direct reading (GOOD-BAD) scale. Tests for shorts and cathode leakage. Individual tests on diodes and full wave rectifiers. Line voltage regulation. Housed in black metal case with popular wrinkle finish. Complete with rectifier tube and all necessary accessories. DEALER PRICE . . . \$22.00

A TRIPLET MASTER UNIT

One of a series of co-related single unit testers; made in standard sizes; the most economical method yet devised for completely equipping the all-around radio service shop with high quality instruments.

**SEE YOUR JOBBER
WRITE FOR CATALOG**



ELECTRICAL INSTRUMENTS

THE TRIPLET ELECTRICAL INSTRUMENT CO.
192 Harmon Dr., Bluffton, Ohio

Please send me more information on Model 1210-A

I am also interested in

Name

Address

City State

the detector and oscillator sections of the circuit. This unit is merely connected to the antenna post of any radio set—either superhet or tuned R.F. With this unit, no changes are required in the radio set. Power for the filaments and plate circuits is derived from an internal supply.

Adapter unit

The second type of unit uses a 6A8 type tube with R.F. and oscillator circuits tuned by trimmer condensers. The plate of the 6A8 tube is attached to the plate of the mixer tube in the radio set. When push-button tuning is desired, a switch kills the R.F. circuits in the radio sets and substitutes those of the push-button unit. The circuit of this unit and the required connections are shown in Fig. 1. This unit can be used only on a superhet receiver with a suitable I.F. frequency. Like the converter type unit, this adapter unit does not connect into any of the R.F. circuits of the set.

Change-over switch

Most of the sets having push-button tuning with trimmers use a switch to connect either the tuning gang or the push-button trimmer unit into the circuit. This is the third type of unit. Fig. 2, at the left, shows how a triple push-button unit is connected in a set having an R.F. stage. A triple pole double throw switch selects either the condenser gang or trimmers.

If the receiver is a 3-gang job and it is desired to use a 2-bank trimmer condenser unit, the change-over switch is connected as shown in the center of Fig. 2. In this way the R.F. stage is by-passed for push-but-

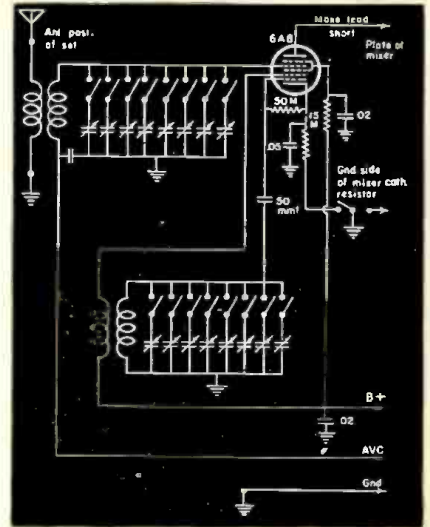


Fig. 1—Circuit used in the adapter type of push button tuning unit.

ton tuning, although 100 per cent effective for manual tuning.

The right circuit in Fig. 2 shows the connections when using a change-over switch in a 2-gang receiver.

Automatic change-over

A variation of this third method is shown in Fig. 3 (top). Here the change-over from manual to push-button is accomplished automatically in the push-button unit. The manual button, when depressed automatically, cuts out the trimmers and substitutes the condenser gang in the circuit.

To date this unit is made only in 2-section types, so if it is to be used on a 3-gang set, the R.F. stage must remain in the circuit although it isn't tuned. Consequently its use is not recommended for 3-gang sets.

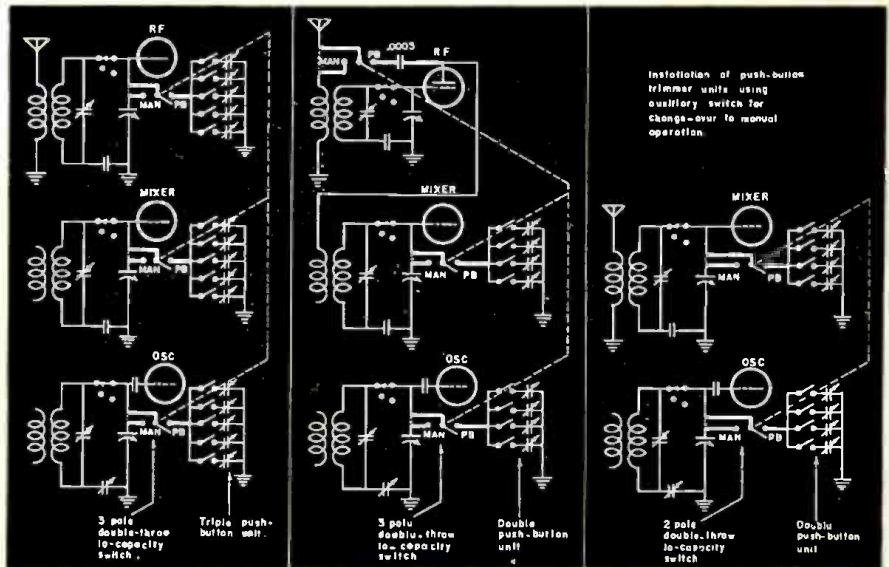


Fig. 2—Typical circuits for push button tuning unit when using a separate change-over switch. Left is for a 3-gang set with 3 sets of trimmers. Middle drawing is for dual trimmers on a 3-gang set. Circuit at right for a 2-gang set.

Paralleled trimmer unit

The fourth type of push-button adapter is shown in Fig. 3 (bottom). It is a dual trimmer type and works best on 2-gang sets. In operation, since the condenser gang is not disconnected, the dial of the set must be turned to minimum capacity. Then the trimmer capacities are added and tuned for station selection. If the set is an all-wave job, the trimmer unit should be connected across the broadcast coils and not just across the condenser gang.

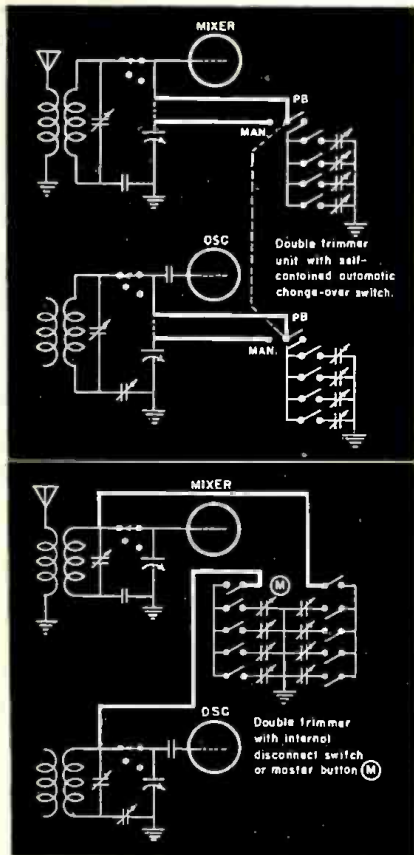


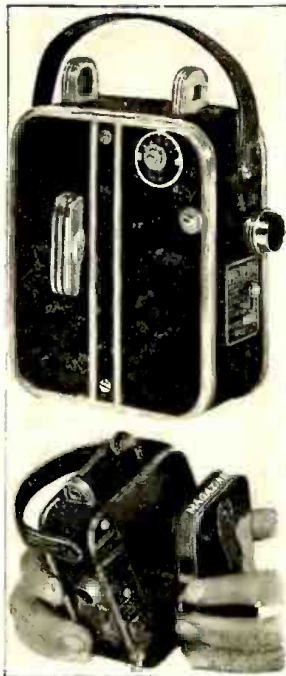
Fig. 3—Top shows connections for dual unit using internal change-over switch. Bottom circuit shows unit with disconnect switch.

A disconnect switch cuts out the trimmer condenser unit when manual tuning is desired. However, for push-button tuning, the condenser gang must be returned to the same position as it was in when the stations were set up on the trimmers. Connections for the unit are shown in the accompanying diagram.

Alignment necessary

Realignment of the set must take place when types 2 and 3 are added to a set, since the R.F. circuits have been disturbed. Align with the switch in the manual position on the broadcast band. If a tapped type coil is used for shortwave, alignment will be necessary also on that band, since the

TAKE UP THE "RADIO SLACK" WITH THIS NEW PROVEN SALES and PROFIT MAKER!



Here is the consumer tested item that will fit into every radio dealer's sales picture. From coast to coast the consumer demand for movie cameras is increasing and the radio dealer has the logical "set-up" to cash in on this demand.

The Sensational New

IRWIN

MAGAZINE LOADING 16mm MOVIE CAMERA

Four times as large as 8mm pictures

That Lists for Only **\$12.50**

PLUS THE LOWEST FILM COST!

30-foot Magazine for Only **59c**

The new Irwin has unequalled sales appeal! **LOW LIST PRICE . . . LOW MAINTENANCE COST . . . QUALITY PERFORMANCE . . . SIMPLEST TO OPERATE!** No other movie camera selling for less than \$60.00 has the 40 foot Magazine Loading feature. No camera, regardless of price, has a more beautiful appearance. Get the facts . . . descriptive literature and dealer prices sent upon request.

THE IRWIN 16mm AIR CONDITIONED "ZEPHYR" PROJECTOR

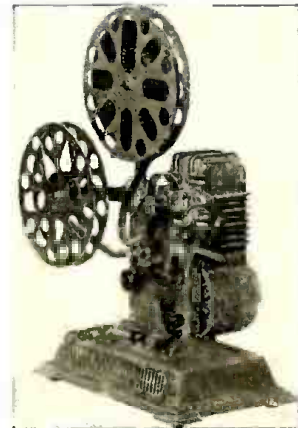
That Lists for Only **\$18.00** A.C.

A fitting companion to the Irwin Movie Camera. The finest low priced 16mm projector on the market. Its rugged construction, excellent performance and professional appearance place it far ahead of competition. Takes all 16mm films.

JOBBERS! DISTRIBUTORS!

If you serve the radio and electrical dealer we have a most interesting proposition for you . . . Your inquiry will bring full details.

IRWIN CORPORATION
33 West 20th St. New York, N. Y.



"The World's Best Value"

KADETTTE RADIOS

INTERNATIONAL RADIO CORPORATION, ANN ARBOR, MICHIGAN, U.S.A.

WHAT'S THE ANSWER To Radio's "Off Season" ?

SMART retailers are "taking up the slack" in radio business by featuring the movie outfit everybody wants...the only one everybody can afford! There's no question about it! UniveX is the answer to the radio man's prayer!

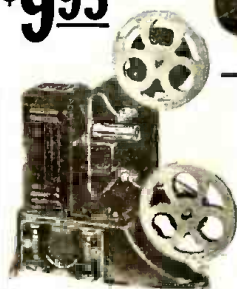
How well you bridge the gap until next season depends on how thoroughly you promote UniveX—NOW! And remember, every time a UniveX customer comes back for accessories you have a chance to sell him other products.

Let your customers know your store is UniveX headquarters—and make your "off" season the biggest you ever had!

FAIR TRADE PROTECTED IN 42 STATES

**LIFETIME
MOVIE
CAMERA**

\$9.95



**LOWEST
PRICED
8MM.
PROJECTOR
\$14.95**

TESTED SELLING IDEAS

Universal Camera Corp.
32 West 23rd Street, New York City

Will you send me tested selling ideas which have produced volume sales and profits for other radio dealers. I understand there is no obligation.

Name _____

Address _____

City _____ State _____

SERVICE NOTES

distributed capacity of the circuit has been altered.

All the leads should be very short since they are carrying radio frequency energy. Consequently, the serviceman must exercise judgment when installing the push-button adapter units. In fact, some sets are not at all suitable for such additions—here again the serviceman must be careful in order to avoid them.

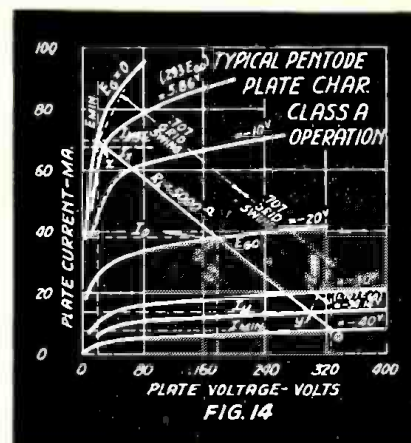
However, there are many old trade-ins that might be moved with the aid of push-button tuning—and some of the unsold sets of this year's production can be given a push with push-button tuning.

BOOK REVIEWS

DATABOOK

By RAYTHEON PRODUCTION
CORP.'S ENGINEERS

★ First edition of Raytheon's pocket *Databook* is a 200-page technical manual giving data on all the various types of receiving tubes.



Book is chock full of characteristic curves of the tubes and also gives nominal or typical operating values. Dimensions and socket layouts for each tube are given on the page with its characteristics.

Simplified circuits and calculations are contained in the first section of the handbook. Also there are instructions for making use of the curves and sample charts are drawn—see accompanying illustrations.

Definitions of the various tube characteristics and terms are included for the serviceman. Price 25 cents. Published by Raytheon Production Corp., 420 Lexington Ave., New York, N. Y.—RADIO TODAY.

RSA EXPANDS; CHAPTERS ADDED

Headquarters of Radio Servicemen of America, 304 S. Dearborn St., Chicago, reports that the following chapters have affiliated: Manchester, N. H.; Boston, Mass.; Newark, N. J.; Binghamton, N. Y.; Tri-County Chapter of Johnstown, Penna.; Cleveland, Ohio; Detroit, Pontiac and Flint, Mich.; Chicago, Freeport and Peoria, Ill.; the Interstate Chapter at Davenport, Iowa; Duluth and St. Paul, Minn.; Oklahoma City, Okla.; Waco, Abilene and Dallas, Texas. We have received, in the last sixty days, requests for affiliation from over 1,800 individuals.

The officers and board of directors are now working under the leadership of T. P. Robinson of Dallas, Tex. A general election is to be held shortly, at which time the members of the RSA will elect directors to represent them on the national board.

"The officers and board of directors are pleased and grateful to have received such wholehearted cooperation and support from every branch of the industry," says a headquarters memorandum. "Servicemen are further assured that this organization is run by servicemen entirely for the benefit of its members."

New Jersey—The Radio Servicemen of New Jersey, with headquarters in Newark, is the most recent as well as one of the largest organizations of servicemen to petition RSA for membership. This group is cooperating with local authorities in and around Newark looking towards the alleviation of the evils caused by misbranding of radio sets by unscrupulous manufacturers.

This newest chapter of RSA is under the direction of Carl Rauber, chairman; Norman L. Andreatta, treasurer, and Albert Fasanello, secretary.

Duluth—The Associated Radio Servicemen of Duluth was one of the first groups of servicemen in the country to affiliate with RSA. Under the leadership of M. O. Endresen, president; Mr. Eric N. Holmlund, vice president, and Edward J. Durant, secretary-treasurer, a drive for membership is going on.

Cleveland—The annual meeting and election of officers was held on January 3rd, at which time the Cleveland Chapter elected the following officers: L. F. Bangunten, chairman; Horace M. Ricks, vice-chairman; Joseph Repar, secretary; Rudolph Trammell, treasurer. A. J. Theriault was designated by the chapter as a candidate for the national board of directors from that district.

Boston — Boston Chapter of RSA, a group of servicemen representing the old IRSM and the old RTG of Boston, held a consolidation meeting in Boston on January 10, 1938, and voted unanimously to amalgamate their two

organizations and affiliate with RSA under the name of Boston Chapter of RSA.

The following officers were elected: President, Al Wells; vice president, W. Staples; secretary, Ingvar Paulson.

Chicago—Chicago Chapter of RSA held a Set-chassis Show at which fifteen set manufacturers displayed their latest touch-tuning sets. Engineers connected with these manufacturers were on hand to explain details of the sets. At the meeting January 23 the following officers were elected: Chairman, Ray Mason; vice chairman, Lew Evans; secretary, Robert Storey; treasurer, S. A. Gazinski.

NEW BOOKLETS

★ Aerovox Corp., 70 Washington St., Brooklyn, N. Y., has a new wall chart which lists, alphabetically and by model numbers, the various standard radio sets along with their condenser requirements. Copies are available to those handling exact duplicate replacements.

★ "Where Should the Radio Serviceman Locate His Place of Business?" is the title of a booklet issued by Supreme Instruments Corp., Greenwood, Miss. In it is presented a complete discussion of the idea of locating radio service shops in garages; the material is based upon a survey among garages, servicemen, consumers.

★ Ferranti Electric Co., Inc., 30 Rockefeller Plaza, New York City, in a new booklet announces "aero" transformers for aircraft and portable work.

★ The new catalog insert issued by Hickok Electrical Instrument Co., 10514 DuPont Ave., Cleveland, O., features dynamic mutual conductance tube testers, zero current voltmeters, along with Hickok oscillators, oscillographs, modulators, set testers and meters.

★ The 208-page pocket size service manual, published by Clarostat Mfg. Co., 285 N. 6th St., Brooklyn, N. Y., has been ordered by servicemen in such numbers that the supply is becoming exhausted. Prompt requests for the book will still be filled, however.

★ New and completely revised catalog of 32 pages has been released by Stromberg Carlson, Rochester, N. Y. Besides complete lists of replacement parts, the book contains other SC products recently introduced.

★ Available from Radio Supply Co., 218 W. 4th St., Charlotte, N. C., is a new 1938 radio parts and public address catalog.

★ Pierson-De Lane, Inc., Los Angeles, Calif., have published their first catalog. The firm manufactures and distributes PR 15 communication receivers, and the PR 15 UH special police receivers.



HUSH-TONE

RADIO VOLUME CONTROL

PATENT APPLIED FOR

Rescues the listener from overdone commercial announcements

A brand new accessory for a tremendous waiting market!

HUSH-TONE is a new joy to the listener—a cure for the one bane of radio.

No longer can the boisterous announcer blast his way into the home. For Hush-Tone, by a mere press of the thumb, cuts him down to a whisper.

Hush-Tone is a compact volume control, easily installed on a table model or inside a console. It includes a reel and 15 feet of cord enabling the listener to take the thumb-control to any part of an average room. The reel is self-winding and self-tripping; hence the cord goes out of sight when not in use.

Read, converse, telephone. No need of getting up to tune out or turn off objectionable features. Hush-Tone rules the ether waves. With it, good programs and proper commercials can be enjoyed. It's good-bye to nerve-wracking "blah".

Jobbers and Dealers—Wire or write for the Hush-Tone Proposition.



RADIO REEL CO., *Manufacturers*
TACOMA, WASHINGTON

List \$7⁵⁰



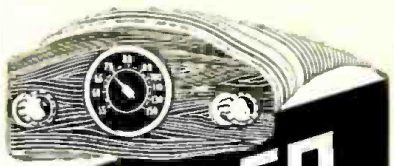
A GOOD NAME GOES A LONG WAY

The name, Ken-Rad, stands for quality manufacture and perfect performance. Stock Ken-Rad Tubes for increased business.

KEN-RAD TUBE & LAMP CORP.
OWENSBORO, KY.

KEN-RAD

DEPENDABLE RADIO TUBES



PHILCO DEALERS
Attention

Crowe

FIVE-POINT PROGRAM

For Crowe
On-the-Panel Controls

YOUR Philco Distributor—again in 1938!—has a special Crowe Program to help you increase your sales of Auto Radios.

This Crowe Five-Point Program insures quicker sales and increased profits with Crowe ON-THE-PANEL Kits—at no extra cost.

Crowe 1938 On-the-Panel Kits embody these features:

- Exact custom styling
- Official Philco specifications
- New no-glare dials
- Improved anti-backlash design
- Adaptable to any car
- Quickly installed—easily moved

Ask for Crowe Bulletin No. 205

PARTS JOBBERS!

Enlarge your market—increase your sales! Radio Dealers—New-Car Dealers—Used-Car Dealers. ALL need Crowe On-the-Panel Controls—for modernizing or changing old radios from car to car.

Ask for Bulletin No. 206

CROWE NAME PLATE & MFG. CO.
1775 Grace Street
CHICAGO, ILLINOIS

AUTO RADIO ANTENNA LISTINGS

(Continued from page 15)

Model No.	List Price	Type	Length Inches	Finish
J.F.D. Mfg. Co. (continued)				
101N	6.00	Top	52t	Cr
3075N	5.00	Top	50	Cr
3040	3.50	FP	96t	Cd
3010NB	6.95	Buick RB insulators		
3010	5.50	Buick RB insulators		
3020	5.50	Oldsmobile RB insulators		
Noblitt-Sparks Industries, Columbus, Ind.—“Arvin”				
AA	\$3.00	RB		Rl
A2	3.50*	DH	44	Nr
A4	2.75*	DH	29-51t	Nr
A5	3.65*	DH	20-43t	Nr
A6	3.65*	Cowl	29-50t	Nr
A7	4.45*	Cowl	29-63t	Nr
A8	4.95*	Top	21-36t	Nr
A9	3.45	RB		Ru

Philco Radio & Television Corp., Tioga and C Sts., Philadelphia, Pa.				
45-2632	\$4.00*	Cowl	27-50t	Nr
45-2568	4.00*	Top	NS	Nr
45-2615	4.00*	RB	NS	Nr
45-2617	5.00*	Cowl	62t	Nr
45-2470	3.75*	Cowl	54	Nr
45-2184	6.00	RB	NS	NS

RCA Mfg. Co., Front and Cooper Sts., Camden, N. J.				
9823	\$4.95	Top	21-36t	Nr
9825	3.65	Cowl	29-50t	Nr
9793	3.50*	DH	51	Cr
9827	2.75*	DH	30-51t	Nr
9605	2.60*	RB	NS	NS

Radiart Corp., Shaw Ave., Cleveland, Ohio.				
C3	\$4.95*	Cowl	24-60t	
C3NL	4.45	Cowl	24-60t	
C4	2.75	Cowl	31-51t	
C5	2.95	Cowl	31-51t	
C6	3.95	Cowl	24-50t	
H4	3.75	DH	18-43t	
H5	2.75	DH	31-51t	
H6	3.50	DH	42	
R3	6.00	Top	84	
R4	5.25	Top†	84	
R5	4.95	Top	50	
R6	4.25	Top†	50	
R7	3.95	Top†	20-36t	
R7C	4.75	Top	20-36t	
B1	2.75	FP	96t	
B2	2.75	FP	84t	
U1	2.95	RB	49	
U2	3.75*	RB	49	
U3	3.00	RB	49	
U4	3.80*	RB	49	
U5	NS	RB	49	
U6	NS*	RB	49	
L1	.95	66" shielded lead-in with connector		
L2	.80	36" shielded lead-in with connector		
L3	.80	32" shielded lead-in with connector		
L4	.95	42" shielded lead-in with connector		
L6	.90	Shielded header lead-in for R5 aerial		
L7	.50	36" shielded lead-in for cowl aenals		
L8	NS	Short lead-in for Arvin radio		
M1	1.50	Antenna matching resonator		

Topstream, Inc., 1330 Nicollet Ave., Minneapolis, Minn.				
TC	\$5.50	Top†	48	Cd
TS	4.95	Top†	48	Cd
TH	5.50	Top	48	Cd
THW	2.50	DH	48	Cr
THW	3.50	Cowl	52t	Cr-Cd
TSB	4.25	Top	72	Cd
TWO	3.50	Top	48	Cr-Cd

United Motors Service, Detroit, Mich.—“Delco”				
4144		Top		Cr
4145		Top†		Cr
4067	\$5.50	RB		Ru
4151	2.45	DH	32-51t	Cr
4152	4.45*	Cowl	24-60t	Cr
4078	6.95	RB insulators for '37-'38 Buick		
4118	4.00	RB insulators for '37-'38 Buick		
4079	5.50	RB insulators for '37-'38 Oldsmob.		

CODES

- DH—Door hinge mounting.
- Top—Top of car roof mounting.
- RB—Under running board mounting.
- Cowl—Mounts at side of car just front of door.
- t—Telescopic construction.
- Cr—Chromium plated.
- Cd—Cadmium plated.
- Nr—Non-rusting metal.
- Ru—Rubber covered.
- Ss—Stainless steel.
- Bl—Black enamel.
- NS—Information not stated.

Ward Products Corp., 1523 E. 45th St., Cleveland, Ohio.

ST	\$4.95	Top	21-36t	Nr
SU	5.35	Top†	21-36t	Nr
AL36MT	.70	Recommended lead-in for above		
CON	2.75	DH	29-51t	Nr
FL	3.50	DH	44	Nr
FT	3.65	DH	20-43t	Nr
AL36M	.70	Recommended lead-in for above		
MS	3.75	Cowl	60	Nr
MR	3.50	Cowl	27-47t	Nr
MA	4.45	Cowl	24-62t	Nr
AL36MS	.90	Recommended lead-in tor above		
CO	1.95	DH	44t	NS
OS	3.95	Cowl	61	Nr
OR	3.65	Cowl	29-50t	Nr
Q7	4.45	Cowl	29-63t	Nr
AL36MS	.90	Recommended lead-in for above		
HPR	4.00*	RB		Ru
4RC	2.95	RB		Ru
AL66	.85	Recommended lead-in for above		
BF	3.50	FP	96t	
PD	17.50	FP	120t	Nr
AL13	2.50	Recommended 13-ft. lead-in.		

MANUFACTURERS OF AUTO RADIO CONTROLS AND PARTS

CROWE NAME PLATE & MFG. CO., 1749 Grace St., Chicago, Ill.—Control heads & dials.

DUAL REMOTE CONTROL CO., 7228 Warwic St., Detroit, Mich.—Dual controls.

J. F. O. MFG. CO., 4111 Ft. Hamilton Pkwy., Brooklyn, N. Y.—“JFO”—Flexible shafts, fittings, and replacement tool.

STAR MACHINE CORP., Huntspoint & E. Bay Ave., Bronx, N. Y.—Control heads & dials.

F. W. STEWART MFG. CORP., 340 W. Huron St., Chicago, Ill.—Control heads & dials.

UNIVERSAL CONTROLS, INC., 2107 40th Ave., Long Island City, L. I., N. Y.—Control heads & dials.

S. S. WHITE DENTAL MFG. CO., Industrial Div., 10 E. 40th St., New York, N. Y.—Flexible shafts.

MANUFACTURERS OF VIBRATORS

AMERICAN TELEVISION & RADIO CORP., 128 E. 10th St., St. Paul, Minn., “Atr”.

ELECTRONIC LABORATORIES, INC., 122 W. New York Ave., Indianapolis, Ind., “Electronic”.

P. R. MALLORY & CO., INC., 3029 E. Washington St., Indianapolis, Ind., “Mallory”.

OAK MFG. CO., 711 W. Lake St., Chicago, Ill., “Oak”.

PAULEY-JAMES CORP., 4619 Ravenswood Ave., Chicago, Ill., “Vibrapow”.

RADIART CORP., Shaw Ave. at 133rd St., Cleveland, Ohio, “Radiart”.

UTAH RADIO PRODUCTS CO., 820 Orleans St., Chicago, Ill., “Utah”.

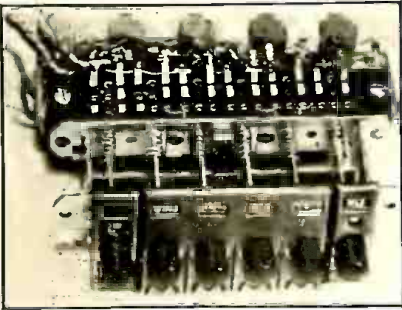
MORE NEW BOOKLETS

★ A lively booklet on selling Arvin auto radio has been issued in a new form by Noblitt Sparks Industries, Inc., Columbus, Ind. It outlines the existing market for car radio, lists the “where to sell” spots, presents the Arvin budget selling plan, explains display and demonstration, etc.

★ Shuler Supply Co., 902 Poydras St., New Orleans, La., have issued an elaborate 90-page catalog with complete listings of radio parts and amateur supplies.

★ A booklet titled “1938’s Most Beautiful Line of Auto Radio Antennae and Auto Radio Accessories” has been issued by Insuline Corp. of America, 25 Park Place, New York City. The firm’s latest types of antennae are completely described and illustrated, along with noise suppressors and the new Duplex Filter-volt.

RADIO'S LATEST SENSATION
HARBRAV
 AUTOMATIC PUSH BUTTON TUNING UNIT



Modernize Radio Receivers

Easy to install, only a few wires to connect—Can be used on any Superheterodyne—Compact in size—Complete instructions and set of Call Letters for all Broadcasting Stations in the U. S. A. with every kit.

JOBBERS

Protected Territory Now Being Allotted
DEALERS—Modernize Your Inventory

Sample Unit will be sent
 Prepaid for \$3.97. \$7.50
 Send Check or M.O. List

HARBRAV COMPANY

Exponents in
 Radio, Television and Kindred Lines
 4701-13 N. Sheridan Rd., Chicago
 80 8th Avenue, New York
 Tel. WAtkins 9-S125

★ To be had from Aerovox jobbers or direct from headquarters at 70 Washington St., Brooklyn, N. Y., is an entirely new edition of the company's industrial capacitor manual. It gives ratings, required capacities, power factors, other engineering and servicing dope on motor-starting capacitors. Self-calculating charts are included.

★ Now available to servicemen and dealers is a new bulletin by Wright-Decoster, St. Paul, Minn., on "Method of Connecting Extra Speaker to Radio." The publication is number A17, following the popular A16, which is "Methods of Calculating Load Impedance and Power Division for Multi-Speaker Installations."

★ New price sheets for the new Triplett testers and instruments have been issued by Triplett Electrical Instrument Co., Bluffton, Ohio. Sheet numbers are 46T and 46I.

★ Bulletin 500, on the subject of switches, is now being sent by Shallcross Mfg. Co., Collingdale, Pa.

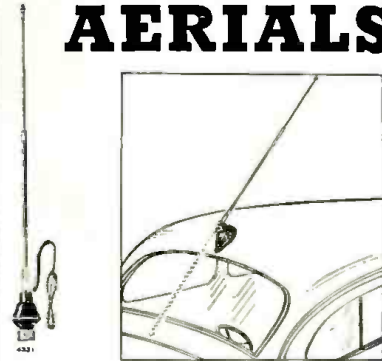
★ J. W. Miller Co., 5917 S. Main St., Los Angeles, Calif., have just issued a 6-page bulletin describing their hand-pass true fidelity R.F. tuner kit. Illustrated with circuits and chassis layouts. A second bulletin which describes the new dual wavetraps is also available on request.



20 distinctive models

TOPPERS
 HINGE WHIPS :: SIDE COWLS
 BUMPERS, ETC.

AUTO AERIALS



SWIVEL-TOP—At right above is shown the "ORIOLE" ALL-BRASS, triple chromium plated swivel model, 19-35 inches; scientifically designed to give more power and less static.

HINGE TYPE—We offer 5 new hinge models, telescopic or non-telescopic, 60 to 96-in. extensions; BRASS and "chromalloy" all triple chromium plated, guaranteed rustproof.

Complete illustrated catalog of Auto Antenna and Auto Radio Accessories on request.

INSULINE CORP. of AMERICA
 25 PARK PLACE NEW YORK, N. Y.

TAKE UP THE
 INDUSTRY'S NEW SLOGAN—

A SIGN-OFF FOR
 CONVERSATIONS
 AND LETTERS

THE
 BIG ANNUAL
 HOMECOMING
 FOR ALL

"SEE YOU AT THE TRADE SHOW!"

SERVICEMEN • AMATEURS • ENGINEERS • DEALERS •
 JOBBERS • REPRESENTATIVES • MANUFACTURERS

SEE
 YOU
 AT
 THE
 TRADE
 SHOW

YOU ARE INVITED TO

RADIO PARTS CITY

STEVENS HOTEL — CHICAGO

HOME OF THE

NATIONAL RADIO PARTS TRADE SHOW

WHERE RADIO'S LATEST APPARATUS WILL BE DISPLAYED

JUNE 8-9-10-11, 1938

THE ONLY TRADE SHOW IN 1938
 SPONSORED BY RADIO MANUFACTURERS ASSN
 AND SALES MANAGERS CLUB

FOR PARTICULARS WRITE

RADIO PARTS MANUFACTURERS NATIONAL TRADE SHOW
 53 WEST JACKSON BOULEVARD CHICAGO, ILLINOIS

REMEMBER GIRLS... HE'S HERE TO FIX THE RADIO



The radio service man must do his work quickly and do it right if he is going to make money and build a list of satisfied customers. The use of dependable replacement parts that do not fail are a big help. That is why so many successful service men are using the parts described in Circular 507.

WARD LEONARD ELECTRIC CO.
 40 SOUTH STREET, MOUNT VERNON, N. Y.

Please send me your Service Man's Circular No. 507.

Name
 Address
 City..... State.....
 Jobber's Name

WHY *Presto Dealers* MAKE MONEY



When you let a customer hear his voice recorded on the PRESTO JUNIOR RECORDER, he is amazed to find that he has never known how his own voice sounds. You've shown him something new about himself. You've aroused his curiosity. And this novelty — this personal appeal — accounts for the phenomenal sales of Presto records and recording instruments.

When you become a Presto dealer you get a large exclusive market for yourself. You get factory leads resulting from an expanding national advertising campaign. You have available the services of a trained factory man who actually helps you sell recording equipment.

Finally, when you sell a Presto Jr. recorder you make a legitimate profit. The list price, \$149.00, is the selling price. Presto manufactures to meet the demand, there's no distress stock . . . no over-production.

PRESTO DEALERS MAKE MONEY. YOU CAN MAKE MONEY ON THE PRESTO LINE. GET STARTED NOW. WRITE TODAY FOR DEALER PROPOSITION.

PRESTO RECORDING CORPORATION

137 WEST 19th St.
NEW YORK, N. Y.

SALES AID

ANTENNA PARTS ON PARADE



★ To aid dealers to convince their customers that an antenna is not just a piece of wire, Stromberg-Carlson has brought out a new kit display panel. For store use, it shows all the actual parts of the firm's No. 5 Perfected Antenna Kit. The panel is metal, finished in gray. It has a chromium frame and colors to match the packaged antenna kit, which is also shown in the display.

CANDID CAMERA SHOTS FOR YOUR CUSTOMERS

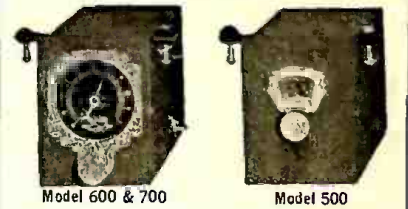
★ On dozens of stations throughout the nation spot announcements are being used to invite listeners to go to their RCA dealer and get packets of candid camera photos. These are pictures taken by expert NY photographers, of Metropolitan Opera stars, and tie up with RCA's sponsorship of the opera series.

Window posters, billboards and store displays are also part of the promotion tie-up on the weekly broadcasts.

PANELS FOR AUTO AERIALS



★ For the walls, counters or windows of radio stores promoting 1938 auto aerials, The Radiart Corp., Shaw Ave. at E. 133rd St., Cleveland, O., has produced new



SHORT WAVE CONVERTERS FOR CAR RADIOS

Can be attached to any car radio. Has on and off switch. Does not affect the reception on the standard broadcast bands. MODEL 600—covers 49, 31, 25, 20, 19 and 16 meter bands. Designed for reception of American and Foreign short wave broadcast. Especially adapted to use in tropical countries and the more remote parts of the world. Distance range 5000 to 10000 miles. A very attractive unit. List Price \$24.95
MODEL 700—Long wave converter covers 135 to 410 Kc. Used in U. S. to receive government weather reports, ships at sea, etc., in cars and boats of the water front districts. Designed also for use in Europe and Asia. List Price \$24.95

For Use of Police and Other Law Enforcement Officers

MODEL 100—Police converter with fixed condenser. Covers 1500 to 2600 kilocycles. List Price \$11.95
MODEL 200—Police converter with variable condenser and illuminated dial. Covers 1500 to 5500 kilocycles. List Price \$17.95
MODEL 500—Police converter with two metal tubes, variable condenser and illuminated dial. Very sensitive. Exceptional distance range. List Price \$21.95
ALL WAVE ANTENNAS—Model A—Hinge Mount telescopic, 60 in. long. List Price . . . \$3.50

JOBBERS AND DEALERS WANTED A B C RADIO LABORATORIES

3334 N. New Jersey Street
Indianapolis, Indiana, U. S. A.



● **SPACE-SAVING**—that's the prime feature of the new CLAROSTAT MIDGET CONTROL. Only 1 1/8" in diameter by 1/2" (without switch) or 13/16" (with switch). Yet this small control will do everything the large control does, PLUS fitting into very tight places. That makes it a more universal control. And ideal for servicemen's requirements.

New MANUAL . . .

Pocket-sized. Over 208 pages of control and resistor replacements for all makes and models of sets. Also abundant servicing notes. Free on request—from your jobber or from us direct.

CLAROSTAT

MANUFACTURING CO.
Incorporated

245 North Sixth St.
Brooklyn, N. Y.



displays on which actual samples are used.

Each panel features one type of aerial and has drawings of others. They are brightly painted in four colors and show the merchandise against an illustration of the side of a car.

AUTO RADIO PROMOTION KIT

★ A big promotion kit for display and demonstration of the 1938 auto radio is now offered free of charge by Philco. The kit includes a full-size demonstration display board, a 5-ft. metal sign for outdoor use, a 10-ft. lithographed cloth banner and enough consumer folders to cover all the dealer's prospects.

Featured throughout the promotion outfit is Philco's new low price on Model 920.

SAMPLES OF CABINET WOODS



★ A new type of sales help is being issued by Ansley Radio Corp., New York City, using actual pieces of the woods from which the firm's Dynaphone cabinets are made.

Samples of both light and dark walnut are used in the display, forming an attractive contrast and, of course, illustrating exactly what the cabinet finishes are like. The item is suitable for either window or counter use and is available free from headquarters.

★ The latest edition of Kenyon Engineering News, 840 Barry St., New York City, is an illustrated discussion of "Experimental Television Circuits."

★ Now available from jobbers is Philco's new tube manual. Featured in its 64 pages are special drawings of socket layouts of all Philco sets. Also tube characteristics, schematic, base layouts and dimensions are included.

★ The Magnavox Co., Fort Wayne, Ind., is issuing engineering bulletins monthly or more often if possible. The first was a capacitor bulletin on "A High Capacity Filter Circuit"; the most recent one is a speaker bulletin on "Instructions for Installing Cone and Voice Coil Assemblies in Magnavox Speakers."

★ General Electric, Schenectady, N. Y., has released two new bulletins. The first concerns Pyranol treated radio transmitter capacitors for amateur equipment, and the second deals with the DC Pyranol capacitors for radio and X-ray equipment, impulse generators and other direct current applications.

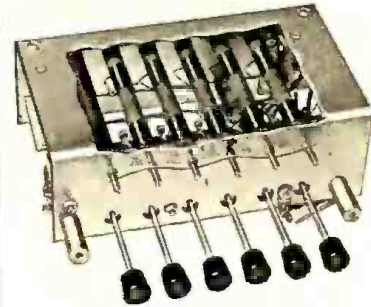
★ Ohmite Mfg. Co., 4835 W. Flournoy St., Chicago, Ill., announces Bulletin No. 108, covering Riteohm "71" Vitreous Enameled, 1 per cent accurate, 1 watt Resistors, and Riteohm "81," 1 per cent accurate, vacuum-impregnated, non-inductively pie-wound precision resistors. It contains tabular listings of stock sizes and handy engineering information.

★ Tro-Mo Radio Co., Inc., 85 Cortlandt St., New York City, a supply house representing a list of some 60 manufacturers, have released a 1938 catalog listing "everything in radio." Presented among the items in the booklet is the new line of Elgin precision instruments.

★ Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., have issued four catalogs for use in foreign countries: (1) "Everything in Radio for 1938" with an introduction in Spanish, (2) the same catalog in English, (3) a folder on Knight radios for 1938 in Spanish, and (4) the same folder in English.

ALADDIN

Announces a Perfected
AUTOMATIC
Push-Button **TUNER**



Designed For STABILITY, and Elimination of Frequency Drift

The simplicity of operation and excellent performance of this ALADDIN Automatic Tuner can be attributed to the following combination of features:
EASE OF ADJUSTMENT—Only ONE adjustment per station is required and it is easily made from the FRONT of the panel. Note illustration shows these adjustments are located exactly above the push-buttons, allowing simple, speedy access for station selection, even by the layman.

STABILITY OF OPERATION—Inductance tuning is used throughout in combination with stabilized fixed condensers. This provides a greater degree of tuning stability, elimination of frequency drift, and better uniformity of operation of any band. A new type coil-switch assembly insures accurate tracking in all positions.

PRECISION WORKMANSHIP AND QUALITY MATERIALS—Great care, engineering skill and quality materials, comparable to those used in the fabrication of fine precision instruments, are used in the making of this ALADDIN Tuner.

MANUFACTURERS—Increase the sales appeal of your receivers by including ALADDIN Automatic Tuning in your 1938 models.

DEALERS—Insist upon ALADDIN Automatic Tuning in your new receiver lines. Its simplicity of operation enables your customer to make station changes himself.

For Complete Details
WRITE, TELEGRAPH or CABLE

ALADDIN RADIO INDUSTRIES Inc.
466t W. Superior St., Chicago, Ill., U. S. A.
Licensee of Johnson Laboratories, Inc.

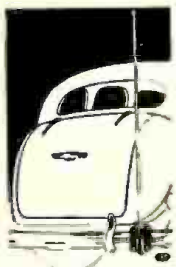
These devices manufactured under one or more of the following U. S. Letters Patents 1,887,380 1,940,228 1,978,563 1,978,599 2,078,600 1,982,589 1,982,600 2,007,453 2,002,500 2,082,590 2,005,203 2,018,626 2,028,534 2,032,150 2,032,916 2,035,439 2,051,612 2,059,393 2,082,187 2,082,559 2,082,595 2,092,189 2,092,420. Other patents pending.

Aladdin
TRADE MARK

JFD 1938 AUTO RADIO ANTENNAS

15 MOST POPULAR TYPES

Double grip all rubber covered running board antennas . . . Cowl antennas . . . Four different tappers — fit all cars . . . Door hinge antennas . . . Bumper antennas . . . Special insulators for Oldsmobile and Buick cars.



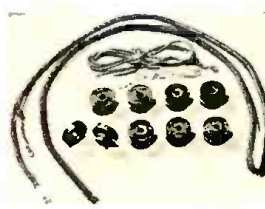
BUICK INSULATORS



Ask
far Our
Complete
Catalog



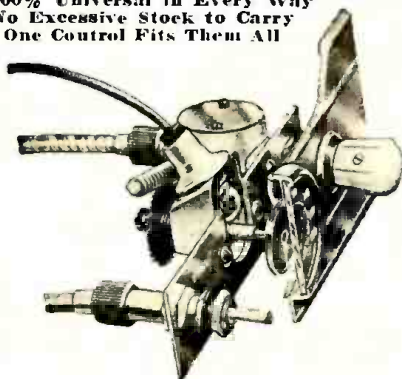
J. F. D. OLDSMOBILE INSULATORS
Manufacturing
Company
4111 Ft. Hamilton Pkwy.
Brooklyn, N. Y.
Export Dept.
116 Broad St., New York
U. S. A.
Cable: ICARAD, N. Y.



STAR

AUTO RADIO CONTROLS

Simplest of All to Install
THE ONLY CONTROL WITH ALL RATIOS SELF-CONTAINED
 Works Clockwise or Counter Clockwise With Same Dial
 Absolutely No Back-Lash
 No Cord, No Cable, Positive Gear Drive
 No Mutilating of Instrument Panel
 100% Universal in Every Way
 No Excessive Stock to Carry
 One Control Fits Them All



Complete Line of 1934-35-36-37 and Custom Matched Escutcheon Plates With Edge Illuminated Non-Glare Glass Dials.

1938



Chrysler 1938



De Soto 1938



Chevrolet 1938

Send For New Illustrated Catalog No. 381

STAR MACHINE MANUFACTURERS, INC.
 13 EAST BAY AVENUE - BRONX, N. Y.

JOBBER ON THE JOB

★ Jobbers in Eastern Pennsylvania, Delaware, Maryland and Virginia are interested in the fact that *Andrea Radio Corp.* has appointed *Wilmer (Bill) Trinkle* as factory representative in that area. Trinkle is an able engineer, but also a veteran sales expert with a wide acquaintance. His headquarters are at 1438 N. 13th St., Philadelphia.

★ *Fischer Distributing Corp.*, New York City, have added *Howard Radio's* push button adapters to their stock of prominent lines. *Milton Fischer* is president; *Sam Kawesh* vice-president.

★ *New Jersey Radio Distributing Co.*, 266 Fifteenth Ave., Newark, N. J., is now the distributor for *DeWald* radios in that city and vicinity, according to an announcement by *Pierce-Airo, Inc.* The Newark firm will handle only *DeWald*, offering complete service facilities, as well as a special service on promotional displays.

★ *B & O Radio Co., Inc.*, 620 Market St., Newark, N. J., have a new advertising and sales promotion manager in the person of *Herb Brown*. Brown replaces *Al Hummers*, resigned. B&O are exclusive Northern New Jersey jobbers for *Norge* products and *Sparton* radios.

★ At *Zenith Radio Distributing Corp.*, Chicago, *Carrol "Tiny" J. Tresslar* has been added to general manager *R. E. McGreevy's* crew of field supervisors. Tresslar's former experience has been with *Stromberg Carlson* and with *GE*.

★ The Gold Diggers Campaign, sponsored by *GE* as a dealer coverage drive, ended recently with leading salesmen getting prizes and winning jobbers getting plaques. The four winning distributors are *GE Supply Corp.*, Buffalo, N. Y.; *GE Supply Corp.*, Cincinnati, O.; *Protective Electric Supply Co.*, Ft. Wayne, Ind., and *GE Supply Corp.*, Seattle, Wash.



JAMES P. BROADWELL,
 ST. LOUIS

Sketched by Lew Merrell for National Union.

★ The Chicago jobbers known as *Schafer & Bowman* are now officially called *J. G. Bowman & Co.*, since Mr. Schafer has sold his interests to J. G. Bowman. The firm is currently accentuating a technical and engineering service to dealers and servicemen as promotion of parts sales.

★ Dealers in the trade area of *Reader's Wholesale Distributors* are just back from a 13-day cruise to the British West Indies. They were guests of the Houston, Tex., jobbers for *Crosley* products.

According to *Hymen Reader*, head of the firm, business has been good enough to justify adding man power to his staff. *Ham Smith*, formerly with *Alamo Distributing Corp.*, has been appointed city representative.

★ Recently added to the staff of *F. B. Connelly Co.*, the firm which was lately named *Norge* jobbers for Western Washington and Oregon, are three specialty salesmen. *Perry West* will supervise city sales in Seattle; *John Stumberg* will work in the city of Portland; *F. N. Ashford* will serve dealers in Southern Oregon.

HEADLINE NEWS FOR 1938

FEBRUARY

ST. PAUL, MINNESOTA

ATR SMASHES VIBRATOR PRICES

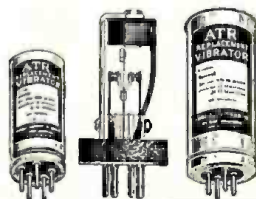
DRASTIC PRICE REDUCTIONS EFFECTIVE IMMEDIATELY ON COMPLETE ATR REPLACEMENT VIBRATOR LINE

Examples of ATR price reductions:

ATR Vibrator	FORMER List Price	PRESENT List Price
303	\$3.50	\$2.50
324	4.00	2.75
326	4.50	2.90
521	5.00	3.75
536	5.25	3.95

New prices subject to normal discounts.

ATR Replacement Vibrators set new high standards of performance and construction. Greater life and reliability made possible by new designs utilizing $\frac{1}{16}$ " dia. tungsten contacts.



ATR Vibrators are proven units of the highest quality, engineered to perfection. They are backed by more than seven years of vibrator design and research, development and manufacturing—ATR pioneered in the vibrator field.

FREE—Win an ATR Auto Radio "A" ELIMINATOR on special introductory ATR Vibrator deal. Full details sent on request.

Insist on ATR VIBRATORS, the Best by Test.

Write for your FREE copy of the new 1938 ATR Vibrator Guide and Name of your Nearest ATR Vibrator Distributor

Manufacturers of DC-AC Inverters, Inverter Vibrators, "A" Battery Eliminators, and Battery Chargers

AMERICAN TELEVISION & RADIO CO.
 128 East Tenth St. St. Paul, Minnesota

**BUILD
PUSH-BUTTON TUNING
INTO ANY RADIO**

**THIS SIMPLE UNIT
DOES THE TRICK!**

BRING old sets up to date—give them modern, push button control by simply adding a Meissner Push Button Tuner. Easily installed in any superheterodyne or TRF receiver having a two or three section Tuning Condenser—just three wires!

Provides instant selection of any of six or eight of your favorite stations—automatically—by simply pushing the button—on your present radio receiver. Additional "Release" button returns your set to manual tuning. Complete instructions and full set of station call-letter discs supplied. Stations selected may be readily changed at any time if desired.

The simplicity and ease of installation of the Meissner Push Button Tuner has won the admiration of service men everywhere. It can be installed quickly at a good profit and will give unlimited service.

Try one on your own set. See your nearest good jobber or write us.

Meissner Push Button Tuner
 For 6 Stations For 8 Stations
 LIST PRICE LIST PRICE
\$7.50 \$9.50

ANOTHER
Meissner IDEA
MEISSNER MANUFACTURING CO.
 600 BELLMONT AVENUE, MT. CARMEL, ILL.

★ Big plans for the new *Grunow* Thermene gas refrigerator were outlined for a convention of distributors at Hotel Sherman, Chicago, Jan. 25-26. Market possibilities, advertising campaigns and Thermene engineering news were the features of the convention. On the program were *Harry Alter*, *General Household Utilities Co.*, president; *W. C. Grunow*, chairman of the board; *J. D. Jordan*, research engineer; *M. W. Thompson*, advertising manager, and *J. J. Davin*, sales promotion manager.

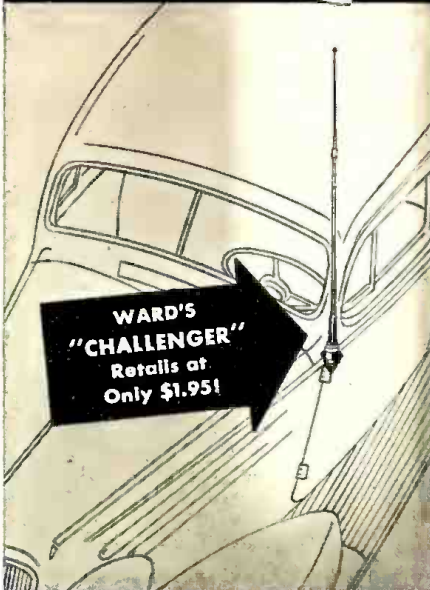
★ *Philco's* Atlanta, Ga., and Charlotte, N. C., offices have just finished a cruise for dealers to Miami and Havana. Similar affairs coming up in other parts of the country, at various *Philco* divisions, include: Memphis, Tenn., division to Mexico City in March; Pacific Coast Division also to Mexico City in late March; Eastern, East Central, Central, Southwest and Northwest divisions to Florida in March; Atlantic division to Nassau and Havana early in April; Washington and Oregon division to Alaska in mid-April.

★ *Henry P. Segel* of *Segelsound, Inc.*, Gardner, Mass., has been named by *Tech Laboratories*, Jersey City, N. J., as a New England representative. The *Segelsound* firm has stopped manufacturing activity and will accent the sale of sound equipment.

★ *Morris Lebow* has been named as key account contact man in the Chicago metropolitan area for *Zenith Distributing Corp.*, according to an announcement by *R. E. McGreevy*, general manager of the jobbing firm. *Lebow* has had 20 years in the radio and music business.

★ A new company, *Lund & Barr*, sales engineers, with headquarters at 2815 W. 19th St., Chicago, Ill., has been announced by *Robert L. Barr*, formerly a principal executive for *Clough-Brengle*. Another *Clough-Brengle* man, *Russell O. Lund*, is associated with Mr. Barr. The company will engage in selling, consulting engineering, and will represent *Clough-Brengle* and *Vocograph* in the Midwestern states. They will also bring their wide experience to bear on promoting other non-conflicting lines.

**EASY TO SELL
EASY TO INSTALL
THE COMPLETE LINE
OF GENUINE
WARD AUTO AERIALS**



(Above) A FAST SELLER! WARD'S new "CHALLENGER" hinge-type aerial sells at only \$1.95, and still makes you a handsome profit! Features: New Easy-Tilt Contour Bracket; Rust-resisting; Fits all cars, no drilling; Telescopic.

WARD offers you everything you need to cash in on the big, profitable auto aerial business. There are models at prices to suit every prospect. Each model fits all cars with no "top drilling" required. And WARD backs up this "all-star" line with a complete set of dealer helps—*fulfilling everything you need to cash in!*

Send today for complete details on this new money-making opportunity.

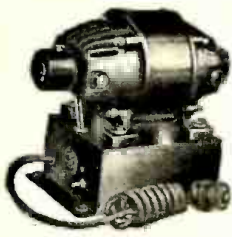
FREE!

See what's new in car Aerials for 1938. Write today for FREE Catalog!

The WARD PRODUCTS Corp.
 WARD BUILDING CLEVELAND, OHIO

JANETTE ROTARY CONVERTERS

FOR CONVERTING DIRECT TO ALTERNATING CURRENT



● Built in capacities from 35 to 3250 volt amperes—with or without all wave filters. Dynamotor construction—economical to operate—ruggedly built for years of trouble-free service—used or recommended by the largest manufacturers of sound apparatus—in use in all countries of the world—Send for prices and data.

Janette Manufacturing Company
 556-558 West Monroe Street Chicago, Ill. U. S. A.
 BOSTON - NEW YORK - PHILADELPHIA - CLEVELAND - MILWAUKEE - LOS ANGELES
 DETROIT - SEATTLE

Radio Servicemen of America, Inc.

President
T. P. ROBINSON
Vice President
A. C. W. SAUNDERS

Secretary
INGVAR PAULSEN
Treasurer
LEE TAYLOR

Executive Secretary
JOE MARTY, JR.

Qualified Serviceman, Anywhere, U.S.A.:

Radio Servicemen of America, Inc., grew out of a desire of outstanding radio servicemen from all parts of the country to have an association qualified to assume its rightful place in the industry. The whole aim and desire of RSA is to provide an organization of such character that servicemen will be proud to belong; that the radio industry will consider an integral part of its structure and that the public will accept because of the high business and professional character of its membership.

The first step taken was to insure, through its by-laws, that the control of the policies and business affairs of the organization should be forever vested in its qualified members, any one of whom is eligible for service on the board of directors. The by-laws further guarantee that the organization shall be independent and free from subsidy or domination.

An equitable method of representation based directly on radio set population has been worked out whereby the country has been divided into twenty districts. Before June of 1938, the members in each district will elect a director to represent them on the board of directors. The directors thus elected will constitute the governing body of RSA and will carry on and expand the work thus far done by the first organizing board. The term of office of directors is two years, at the end of which time new directors will be elected by the members in each of the districts.

Qualifications for membership are determined by the local chapters of RSA. Further provision has been made that wherever a local affiliated chapter exists, an applicant must become a member of such local chapter and must be certified to the national office by the proper chapter officers before he can be accepted as a member of the national body; likewise, when a member at large moves into an existing chapter area, he must become a member of the local chapter. RSA feels that local problems can best be solved by a united local group acting in the best interests of the majority.

RSA is definitely not interested in a quantity membership as such. It will continue to build its membership from the ranks of radio servicemen who are willing to assume the responsibility of leadership in their profession, true to the ethics of good business and to the welfare of the public they serve.

RSA is the only national service organization that has ever enjoyed the support and cooperation of ALL the organized groups within the industry.

Upon acceptance of application, a member will immediately receive a certificate of membership suitable for framing and a pocket membership card. Regular mailings will be made of advance circuit diagrams, received through the cooperation of set manufacturers. A monthly house organ containing interesting news and editorials will be mailed to members. We stand ready at all times to help local chapters and individuals solve problems that affect their welfare. We are embarking upon a program designed to educate the public to the need of reliable radio servicing and will use such media as newspapers, periodicals and local broadcasts in towns where local chapters already exist.

Through the pledged cooperation of publishers, manufacturers and trade journals, we offer our members accurate, expert information and technical advice at no cost. Through these same contacts, a National Speakers Bureau is being established to provide outstanding speakers for all chapters desiring experienced lecturers. Education in actual service problems as well as technical theory is planned for the immediate future.

All of the above services are rendered to our members at only \$2.00 per year for national dues for 1938. Fill out the application and send to the national office at once. Where a local affiliated chapter exists, this application will be sent to the proper local Secretary for certification and upon your admission to the local chapter and upon payment of local and national dues for 1938, you will receive immediately your membership card and other material mentioned above.

RADIO SERVICEMEN of AMERICA, Inc.

Incorporated not for profit *304 South Dearborn St., Chicago*

• APPLICATION for MEMBERSHIP •

I hereby make application for membership in the RSA.

Affiliated with Local Chapter in

Personal Name

Home Address

City & State

Firm Name

Address

Telephone (home).....(firm).....

Years Experience..... Age.....

Membership in other Associations

Whole or Part Time Radio Serviceman

If Part Time, what portion is devoted to Radio Servicing (3/4, 1/2, 2/3, etc.).....

What are your other duties

Education other than Radio

Radio Training or Courses

Testing Equipment

It is my sincere desire to become a member and adhere to your principles of fair competition and ethics and if accepted do solemnly swear (or affirm) that I will faithfully fulfill my obligation as a member of the Radio Servicemen of America, Inc.

Signed

Applicant

Approved: Chapter Secy..... Executive Secy.....

Please address your replies to Radio Servicemen of America, Inc., 304 South Dearborn Street, Chicago, Illinois, Attention of Joe Marty, Jr., Executive Secretary.

TRADE FLASHES

★ The Operadio Mfg. Co. announce the promotion of Howard A. Wilson to the position of sales manager of the public address, sound and amplifier trade division, according to a statement issued by Larry King, general sales manager. This new position has been created because of the rapid growth of this portion of the business, which includes all of the equipment which is sold through jobbers and dealers. Howard Wilson has been with Operadio for several years, acting as division manager, calling on the jobbers and dealers in the Eastern and Southern territories. His new position now puts him in active charge of all sales to the jobbers and dealers for the entire United States and Canada.

★ Westchester Institute of Radio Service Men, at a recent meeting in Mt. Vernon, N. Y., presented as special lecturer Mr. V. K. Ulrich, service editor of RADIO TODAY. Mr. Ulrich spoke on "Theoretical and Practical Discussions of New Receiver Circuits." Secretary of the organization is R. A. Marriot, 55 Rosedale Ave., New Rochelle, N. Y.

★ Hygrade Sylvania Corp.'s export manager, Walter A. Coogan, is now on a 3-month tour of Europe. He will visit 25 countries on the trip. Mr. Coogan recently added up Hygrade's export sales during 1937, found the greatest total in the firm's history.

★ Cinaudagraph Corp., Stamford, Conn., now have new and larger offices in Chicago in the Northwest Tower Building at 2018 W. North Ave. Midwestern representative for Cinaudagraph is Roy W. Augustine.

★ Now established at Wholesale Radio Service Co., 100 Sixth Ave., New York City, is a new and complete camera and photographic supply department. The equipment includes both still and motion picture supplies. M. Donald Langer, famous photographer, exhibitor and instructor, is in charge of the new department.

★ Comunaphone Systems, nInc., manufacturers of intercommunicators, have a new factory address at 1175 Broad St., Newark, N. J. Henry Tamburr is in charge of interphone sales.

★ Joseph D. R. Freed and Arthur Freed, who have been identified with the Freed Mfg. Co., Inc., New York City, for the past few years, have sold their interest in the company. They have both been associated with Freed-Eisemann radio since the early days of broadcasting. This well-known trade mark remains vested solely in them, and their plans for the future will be announced very soon.



Art Maybrun, export manager, Traveler Radio & Television Corp., finds foreign buyers have special interest in American automatic tuning.

★ The Sales Manager's Cup, awarded twice a year by the *Philco Radio and Television Corp.* to division managers leading the country, was presented in Chicago recently to *Jack Leahy* of the central division.

★ *Universal Microphone Co.*, Inglewood, Calif., will exhibit one of its master wax recording machines, together with discs and accessories, at the Brussels International Fair late this month.

★ *Castellanos-Molina Corp.*, New York City dealers, who for the last 32 years have specialized in radio and music for the Spanish trade, are currently expanding and remodeling their sales rooms. Combinations and records will be given an accent; the receiver lines being featured are *Garod* and *Pilot*. *Herman Diaz*, formerly with *Barclay-Warner, Inc.*, is now one of the proprietors of the big store, along with *Antonio Contreras* and *Alfonso Diaz*.

★ *Lawrence M. Braun*, export manager for *Lafayette Radio Mfg. Co.* and *Wholesale Radio Service Co., Inc.*, sailed early this month for Central America to visit Lafayette jobbers in Haiti, Kingston, Jamaica, Colombia and Cristobal. In Panama Mr. Braun will supervise the installation of a PA system to be used in connection with the Olympic games there.

★ *C.I.T. Corp.*, the national sales finance company, has opened an office at 230½ Pine St., Albany, Ga., dedicated to more service to the Southeastern Georgia area. *Harold L. Dorsey* is in charge. C.I.T. offices in U.S. and Canada now number over 190.

★ Off for Europe late last month was *Charles I. Robbins*, foreign sales representative for *Arcurus Radio Tube Co.*, Newark, N. J. He will visit every country in Europe, the Near East, and Asia, helping distributors and manufacturers with their current problems.

AMPERITE

presents
THE ACOUSTIC COMPENSATOR



3 IMPORTANT USES

(1) The Acoustic Compensator enables you to lower or raise the response of the microphone by the mere flip of the finger!

(2) Makes the Velocity immediately adjustable to close talking or distant pickup.

(3) Immediately adjustable to any type of job or occasion.

PUSH UP TO INCREASE HIGHS
PUSH DOWN TO INCREASE LOWS

MODELS RBHk, RBMk. with acoustic compensator. Frequency range 40 to 11,000 CPS. Output. —65 db. Switch, cable connector, 25' of cable. \$42.00 LIST

MODELS RBHn, RBMn. without acoustic compensator \$42.00 LIST

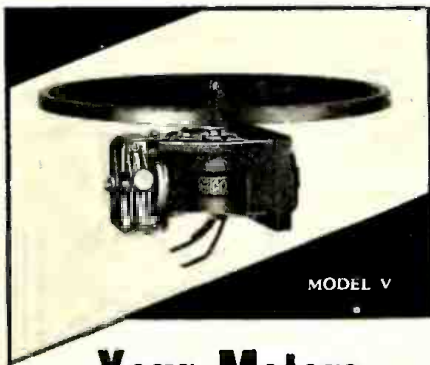
MODELS RAH-RAL. excellent for speech and music. Reduces feedback. Output. —68 db. \$22.00 LIST

NEW! AMPERITE CONTACT MICROPHONE. for use on all string instruments... \$22.00 LIST. AMPERITE "HAND-I-MIKE." smallest velocity made; used as hand, desk, or stand mike. \$22.00 LIST

Write for new Illustrated Bulletins.
FREE: Window Decal & Window Display; also new sales helps.

AMPERITE ©. 561 BROADWAY, N. Y.

AMPERITE Velocity **MICROPHONE**



Your Motors Stand Up If Made By General Industries

THEY not only stand UP, giving long trouble-free service. They stand OUT in popularity... do a real job in boosting demand for radio-phonographs, phonographs and records. Because of their dependable uniform speed, regardless of all variations in record drag... Give your customers General Industries Flyer Motors. Self-starting, governor controlled induction type. Silent, smooth-running, engineered to give you the best service, whether in store demonstration, private homes or in long-haul steady use in amusement resort automatics. Furnished in AC, DC and universal AC-DC types. Two speed types if desired.

The GENERAL INDUSTRIES CO.
3838 Taylor Street, Elyria, Ohio

5 SENSATIONAL NEW RCA AUTO ANTENNAS

... all at popular prices!

Every one is a sales wow! They feature modern styling, brilliant performance and simple installation! Illustrated is RCA MONOGRAM ANTENNA—a beauty for any car top. Special rubber mounting makes installation easy and fast. Antenna extends from 21" to 35½" in length, is guaranteed rust-proof. (Stock No. 9823. List price \$4.95).

RCA's complete line of 1938 antennas includes the RCA COWLANTENNA. This is the vertical type for permanent installation in side of cowl.

(Stock No. 9825. List price \$3.65)... RCA RODTENNA, can be installed in five minutes without drilling, soldering or cementing. (Stock No. 9793. List price \$3.50)... RCA TELESCOPIC RODTENNA, attaches to auto door hinge (Stock No. 9827. List price \$2.75)... RCA DI-POLE ANTENNA, world's finest for undercar installations. (Stock No. 9605. List price \$2.60).

Three low-capacity cables are available for connecting these antennas to all auto radios, at prices of \$1.70 and \$1.90

Listen to the Magic Key of RCA every Sunday, 2 to 3 P.M., E.S.T. on the NBC Blue Network



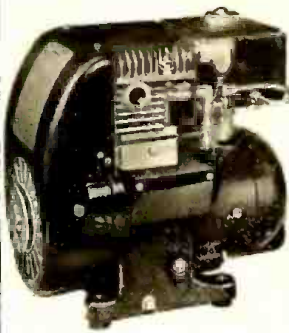
Parts

FOR PROFIT

RCA Manufacturing Co., Inc., Camden, N. J.
A Service of Radio Corporation of America

Over three hundred million RCA radio tubes have been purchased by radio users... In tubes, as in antennas, it pays to go RCA ALL THE WAY.

Complete Electric Plants



NEW
1938
MODELS
SIZES
350 to 5000
WATTS

COMPLETE POWER UNITS

Operating A.C. Radio, PUBLIC ADDRESS SYSTEMS, SOUND CARS, MOTION PICTURE EQUIPMENT, and RADIO TRANSMITTERS. Also furnish Power for Lights, Water Systems, Refrigerators, all Household Appliances for FARMS, CAMPS, LAKE HOMES, or STANDBY SERVICE. For use anywhere Power Line Current is not available.

A PLANT FOR EVERY PURPOSE

110 Volt A.C., 6, 12, 32 and 110 Volt, D.C. as well as Combination A.C.-D.C. Units. Anyone can Operate. COMPLETE, READY TO RUN.

WRITE FOR DETAILS ON DEALERS' PROPOSITION AND TERRITORY

D. W. ONAN & SONS
588 Royalston Ave., Minneapolis, Minn.

TRADE FLASHES

THE REPRESENTATIVES SPECIAL

★ A special train to the Parts Show in Chicago, June 8-11, will be sponsored by "The Representatives," the national organization of radio parts manufacturers' agents. All those identified with the radio industry are invited.

Leaving New York on the N. Y. Central line, the train will stop en route in Upper New York and in New England. Complete plans are being made for 100 per cent comfort and enjoyment. Committee in charge includes Perry Saftler, chairman; Jack Price, Chas. Cooper, and Dan R. Bittan, 27 Park Place, New York City.

★ Tube business done by the *Arcturus Radio Tube Co.*, Newark, N. J., during January, 1938, is reported by the company to exceed any January since 1929. Employees have been added, February prospects are strong and sales manager *Jack Gearner* reports widespread favor for the firm's equipment deal. Next April, *Arcturus* will celebrate its 10th birthday of the introduction of the quick heating tube.

★ *Samuel Glick*, who has been identified with the *Freed Mfg. Co.*, Inc., New York City, for a number of years, has been elected president of the company, and *Max Epstein*, who has also been an executive of the company since its inception, is now treasurer. The company's plans for the introduction of its 1938 sets will be announced shortly. *Joseph D. R. Freed* and *Arthur Freed* are no longer associated with the organization.

★ *Harry Braverman*, formerly general manager of the *Climax Radio Mfg. Co.*, Chicago, and well known throughout the radio industry, has formed the *Harbray Co.* with factory and offices in Chicago. The company is manufacturing an automatic push-button tuning unit and is merchandising its products through jobbers and dealers and servicemen. Mr. Braverman is also acting as a consultant to manufacturers of radio sets, on production, advertising and merchandising problems.

★ Engineers of the *Ward Leonard Electric Co.*, Mt. Vernon, N. Y., point with pride to the fact that they have developed those 100 watt Plate resistors which are being used by "Gerry" Sayre (OX2QY) in his exceptional broadcasts from Reindeer Point, Greenland. Sayre is with the MacGregor Arctic Expedition, uses a rhombic antenna in which the WL non-inductive resistors play a large part.

★ *S. H. Fertig* is now the radio and appliance manager at *Shafer's*, 12 E. Palisade Ave., Englewood, N. J.



Triad's vice-president in charge of sales H. H. Steinle, right, is interested in RADIO TODAY as thumbed by its service editor, Vinton K. Ulrich. Mr. Ulrich frequently takes time out to address servicemen groups, appeared in Westchester, N. Y., recently.

ZENITH TO SPEND \$500,000

★ Zenith Radio Corp. will stage a \$500,000 advertising campaign to promote its new product, according to recent announcements from Chicago headquarters. The new device has been mentioned to network audiences on CBS Sunday nights on the Zenith Foundation program, as "employing some of the principles of radio, but not for entertainment." Nation-wide discussion as to what the product might be has resulted, but Commander E. F. McDonald, Zenith president, will not name the product until it is ready for his 20,000 dealers.

★ Announcement by *Atlas Sound Corp.*, Brooklyn, N. Y., is that they are extending their factory and floor space to accommodate increased production facilities. The sound equipment manufacturers now occupy another floor of the building at 1451 39th St.

★ *Philco Radio & Television Corp.* has moved its auto radio engineering laboratories from Philadelphia to Detroit. Purpose is to place the Philco engineering staff near the Detroit vehicle plants.

★ *George H. Kiley*, one of the pioneers in the radio industry, and connected with several foremost manufacturing organizations, died of a heart attack in Philadelphia Jan. 20 at the age of 48. Mr. Kiley's most recent connection was as a sales executive for the *Electro Acoustic Products Co.*, Ft. Wayne, Ind.

★ *The Mueller Electric Co.*, Cleveland, Ohio, manufacturers of clips, has appointed *Ben Joseph*, 477 5th Ave., New York City, as its representative, covering Greater New York, New England, Eastern Pennsylvania and Northern New Jersey.

Here's why

2½ RADIART for AERIALS in '38

DO YOU KNOW why RADIART AERIALS keep their complexions?

It's no mystery. Radiart, like Cadillac and Packard, is willing to pay for high-grade Nickel and Chrome Plating on Non-Rust Materials, in order to pass car manufacturers' salt-spray test.

by the makers of RADIART VIBRATORS
THE RADIART CORP. - CLEVELAND, O.

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While every precaution is taken to insure accuracy, we cannot guarantee against the possibility of an occasional change or omission in the preparation of this index.

Quality above all



SOLAR CAPACITOR ANALYZER

tells the entire story of any condenser—with direct readings, "quick as a wink". An essential instrument for the radio technician. Very reasonably priced.

Write for Descriptive Literature

SOLAR MFG. CORP., 599-601 BROADWAY, NEW YORK

JIM QUAM

Says



For the good of the entire radio industry, let's not forget that people buy radios to hear music. Very few folks look at the chassis of a set. But everybody insists on hearing it. Fidelity of reproduction is the important difference between radios in the same price class.

The trimmings we put on radios today are excellent sales stimulants. Folks always want something new. But you want your sets to wear well—to be musical company as long as they last.

Try a Quam Speaker. Hear the difference yourself. You'll make the happy discovery that Quam Speakers cost no more, but they deliver much more in quality of performance.

QUAM-NICHOLS CO.

33rd Place & Cottage Grove
CHICAGO

1674 Broadway
NEW YORK



• Everything you need in radio. It's all in this new **RADOLEK RADIO PROFIT GUIDE**. Every repair part for every receiver. Newest radio receivers. New 1938 model public address amplifiers, outputs for 5 to 100 watts. New model public address speakers. Test instruments. Technical books. Special equipment. Leading standard brands. Every item guaranteed. It must be right or we make it right.

And everything under one roof. You get what you want promptly, and exactly what you want. Radolek's immense stock plus Radolek's efficient organization insures you fastest service. 25,000 service men depend on this service and benefit by Radolek's Radio Profit Guide. It will help you make more money.

RADOLEK

601 W. Randolph, Chicago, Dept. D-16

Send me the 1938 Radolek Radio Profit Guide FREE

Name

Address

Service man? Dealer? Experimenter?

TRADE FLASHES

RADIOS GO TO 26 SCHOOLS

★ Twenty-six radio receiving sets of many sizes and makes were presented recently to the Montgomery, Ala., public schools by various dealers through the community service committee of the Rotary Club. The instruments will be installed in the 26 larger schools of the system, to be used as a new teaching medium and not for entertainment purposes, it was announced by Dr. Clarence M. Dannelly, superintendent.

In commenting on the gift, the superintendent said: "The radio and motion pictures are two present-day teaching media which the public schools use in addition to other media, such as the daily papers, current periodicals, books including classics and other content material. The Montgomery public schools certainly appreciate this outstanding contribution of the Rotary Club."

Donors of the radios were: Interstate Oil Co., Elks Club, Superior Cleaners and Dyers, Walther Bros., Radio Electric Co., Coca-Cola Bottling Co., Frank Tennille Furniture Co., Teague Hardware Co., Bishop-Parker Furniture Co., Haverty Furniture Co., Sears, Roebuck & Co., French's, Inc., Alabama Gas Co., Harry Marks of Fenner & Beane, Colquitt H. Lane, also of Fenner & Beane, Nehi Bottling Co., Mercantile Paper Co., Young's Ice Cream Co., McGough Bakeries, Cosby-Hodges Milling Co., John Danziger, Inc., WSFA, W. W. Bowman & Son, and the Vesuvius Lumber Co.

★ *Rubenstein & Fixel*, 80 8th Ave., New York City, well known manufacturers' representatives, have just added the *Harbray* tuning unit to the lines they represent.

★ *George Russell*, sales manager of the *Sentinel Radio Corp.*, Chicago, has been spending the greater part of the past five weeks out on the firing line visiting Sentinel jobbers and leading retailers throughout the Southwest and Middle West. During his travels he attended the Midwest Hardware Show at Kansas City, Mo., which proved to be a mighty successful event with plenty of buying throughout the course of the show. Mr. Russell also attended the annual convention of the *Marshall-Wells Co.*, Duluth, Minn., Sentinel jobber who held a four-day meeting from January 31st to February 3rd.

★ *Emerson* dealers and their salesmen in the New York and New Jersey areas were guests at a second annual meeting early this month at the Hotel New Yorker, New York City. Territories served by the jobbers *Emerson-New York* and *Emerson-New Jersey* were well represented and an important advertising campaign was outlined by Emerson officials. Complete plans were announced for the promotion of the 48 sets now in the company's line, with special accent on model AM-169.



LIGHT! ACTION! SOUND!

FOR YOUR WINDOW, SHOWROOM OR CONVENTIONS

A sensational new display unit with great drawing-power.

- Comes ready for use; place in position and plug into any AC outlet.
- Sets can be played while the unit is in motion.
- Three models—No. 1A—100 lbs. carrying capacity, net price \$18.00; No. 2A—125 lbs., \$20.00; No. 3A—150 lbs., \$23.00.
- Easily holds 4 or 5 midjets at one time, or combination of console and midjet or end table.
- Rotating surface can be increased by adding larger disk. Base can be skirted with concealed lights to illuminate the display.
- Special introductory offer—Genuine Lamiluxe message band, on which advertising message can be placed and illuminated.
- Guaranteed for one year.

GOODMAN'S

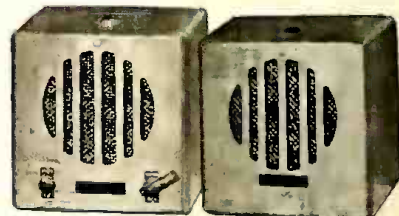
"ROTARY RADIO DISPLAY SPECIALTIES"

19 WEST 34TH ST. NEW YORK

Tel.: Wisconsin 7-8951

"MAGIC PHONE"

The Intercommunicator that PERFORMS and SELLS!



PROVIDES dependable two-way communication between master and remote stations, with variable volume and excellent tone. No tricky controls. No unproved features. Sold to the trade at a sensible net price, permitting adequate markup.

Handrubbed, walnut-finished cabinets, 8 1/2 x 5 1/2". PM speakers, 6 1/2". Master and remote station with 50 ft. of wire, complete; one or more. **\$11.25 NET per PAIR**

The smash hit of communication—Systems to meet any requirement.

ACT NOW!

Send for illustrated folder.

Manufactured by

Comun-a-phone Systems, Inc.
1175 Broad Street, Newark, N. J.

IN TWO PARTS
• PART TWO •

RADIO TODAY

FEBRUARY
• 1938 •

Every Home Has Places for Small "Extra" Radios

But first see that each family is provided with a quality console—a "big set" capable of full-tone reproduction

A good many people are coming into radio stores these days to ask about the new small radio sets. New low price levels in such receivers have awakened public interest in the idea of having "extra radio sets" in the home.

In fact, modern convenience in listening requires that there be as **many radios** as there are diverse **listening tastes in the home**—even to the point of as many sets as there are individuals in the household!

And so this idea of an extra set for the bedroom, an extra set for the kitchen, one for the nursery, and one for the maid's room is thoroughly sound—for both the customer and the radio dealer—providing the customer has already equipped his home with at least one quality radio set or console. That is, has a set in his living room capable of providing the full tonal

range of the music and programs his family should hear.

So when the customer comes into the store and inquires about a small radio, this means an opportunity for the salesman to ask questions leading to the sale of a quality radio.

"What kind of a set, if any, have you now, Mrs. Smith?"

"How old is it?"

"What are your family's tastes in listening?"

"Is the present set suitable for listening to great programs, Toscanini, the Philharmonic?"

"Let me show you the set you ought to have."

Come to buy

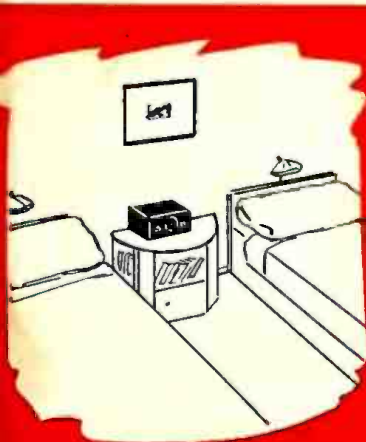
Few people may be coming into stores now, but those that do come, are not casual shoppers—they come with a real purpose of buying.

So, though many store callers will want small radios, the dealer must look on these visitors as valuable store traffic leading to quality-set sales. Here is a chance to contact potential customers, and if they have no modern quality radio, here is the chance to divert the purchase of an inexpensive set into a first payment on a quality console.

Tone values

As outlined on the next page, show the customer what tone quality in a radio means, for good tone is every purchaser's first requirement. Show the importance of good design, ample tube equipment, speaker power, selectivity and sensitivity.

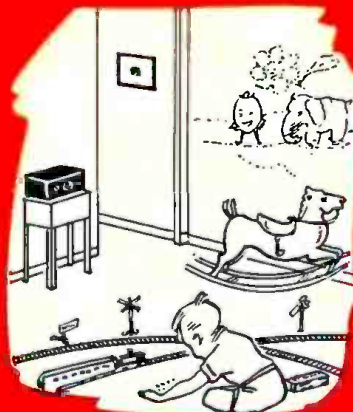
There are many places for small radios in any comfortable home. Customers should be encouraged to equip their homes for convenient listening, upstairs and down, but—



BEDROOM



KITCHEN



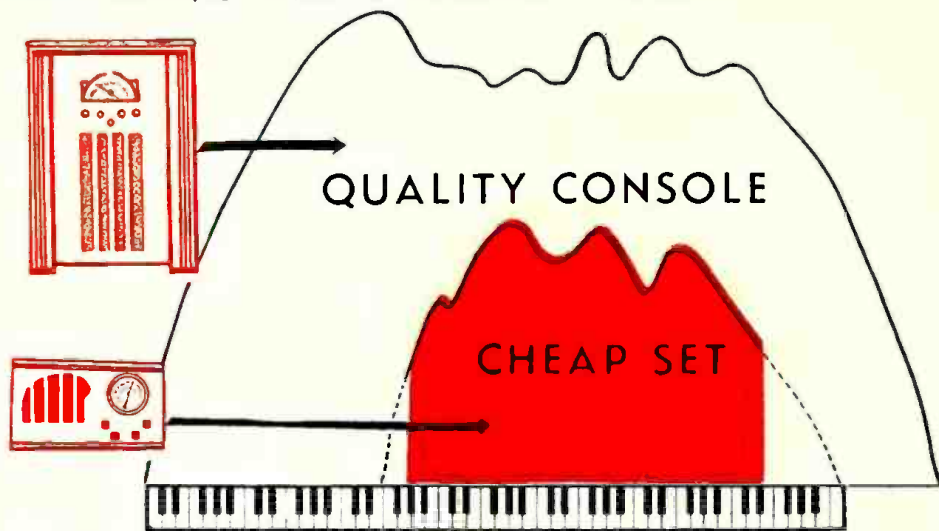
CHILDREN'S ROOM



MAID'S ROOM

TO REALLY ENJOY RADIO MUST HAVE A Q

1 Only a full-sized console will reproduce the tonal quality of the whole musical scale

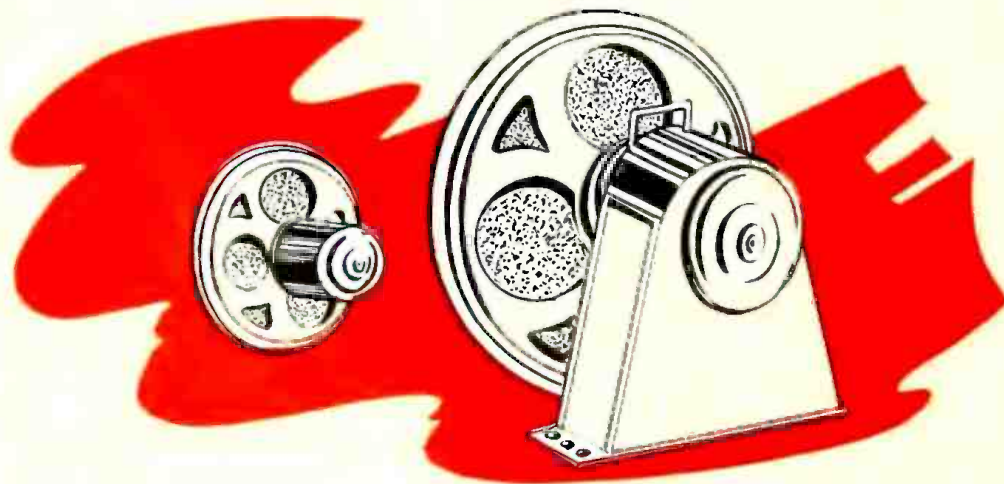


3 Only a full-sized console with sufficient speaker

- a. Proper tuning
- b. Full coverage
- c. Adequate volume
- d. Proper speaker



2 Only with a powerful speaker can one get good Volume without distortion

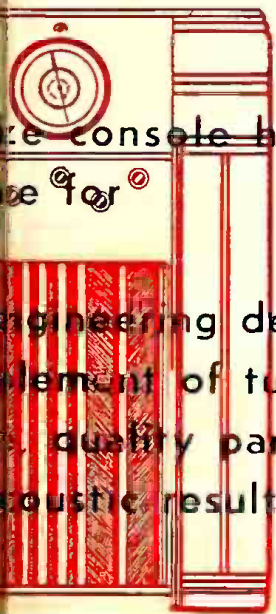


4 Only a good Selectivity can clear programs out of the maze of



FOR MUSICAL SATISFACTION, ONLY

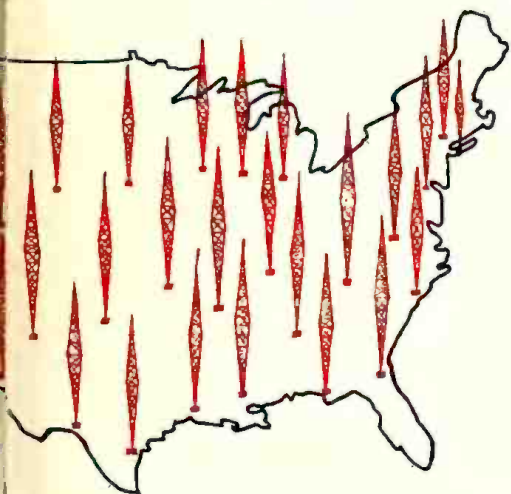
... TODAY - EVERY HOME ... QUALITY CONSOLE



... console has
... for

... engineering design
... of tubes
... quality parts
... acoustic results

... console has sufficient
... and Sensitivity to pick
... ns, free of disturbance,
... of the radio channels



5

Only with a quality console can one reproduce the superb musical performance of great artists, orchestras, symphonies, and opera stars

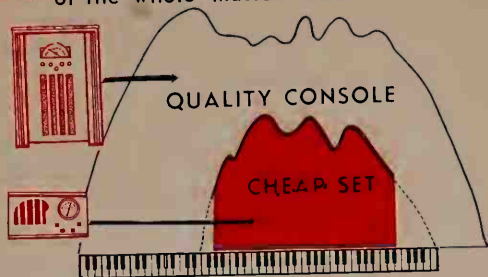


RADIO TODAY
February, 1938.

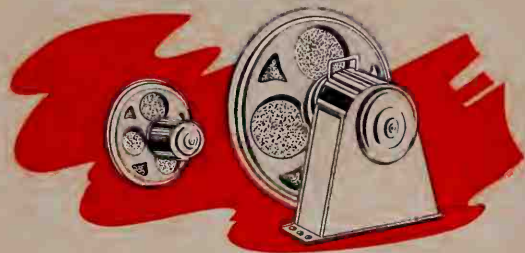
A FULL-SIZE CONSOLE WILL DO!

TO REALLY ENJOY RADIO TODAY - EVERY HOME MUST HAVE A QUALITY CONSOLE

1 Only a full-sized console will reproduce the tonal quality of the whole musical scale

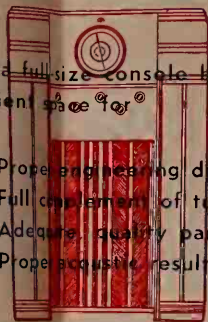


2 Only with a powerful speaker can one get good Volume without distortion

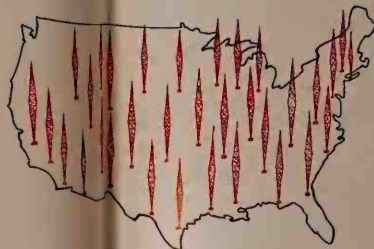


3 Only a full-size console has sufficient selectivity

- a. Proper engineering design
- b. Full complement of tubes
- c. Adequate quality parts
- d. Proper acoustic results



4 Only a good console has sufficient Selectivity and Sensitivity to pick clear programs, free of disturbance, out of the maze of the radio channels

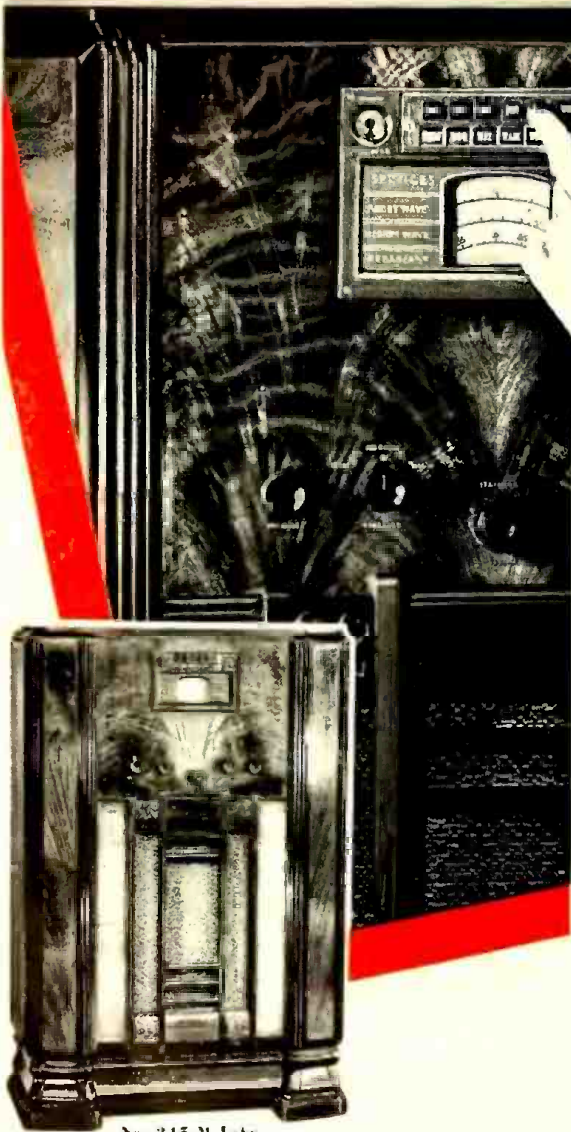


5 Only with a quality console can one reproduce the superb musical performance of great artists, orchestras, symphonies, and opera stars



FOR MUSICAL SATISFACTION, ONLY A FULL-SIZE CONSOLE WILL DO!

Touch a button
and enjoy
LABYRINTH TONE



**FULL-SIZE PERFORMANCE
DEMANDS A FULL-SIZE CONSOLE —
with the LABYRINTH!**

Of all the discoveries in radio which go to make tone lifelike, natural—the Labyrinth undoubtedly leads. It remains the outstanding important feature of high quality radios.

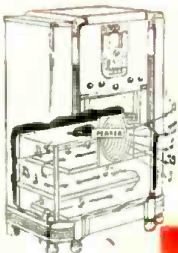
So revolutionary is this exclusive and patented development that it makes *obsolete* any console large enough to contain a Labyrinth and not having one. Let a prospective buyer of a fine radio once hear Labyrinth Tone and no other will satisfy.

Add to this the convenience of Stromberg-Carlson's Electric *Flash* Tuning, the beauty of Stromberg-Carlson cabinets, and you will realize why Stromberg-Carlson sales are up.

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

No. 245-M Labyrinth, Electric Flash Tuning.

THE ACOUSTICAL LABYRINTH



The long, winding passageway of the Labyrinth, takes the place of the usual box-like cavity in the cabinet which is the source of the exaggerated boom in low tones. It gives deeper bass notes, with new fidelity.

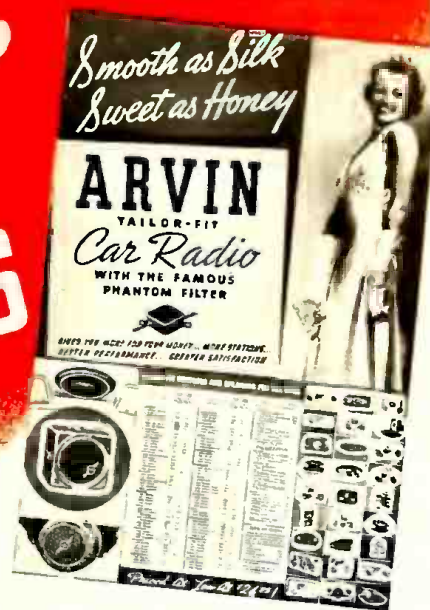


ELECTRIC *Flash* TUNING . . .

Touch a button and the station you want comes in, perfectly tuned, without a second's delay. The pre-selected stations are clearly indicated. Station is kept exactly in tune by perfected Automatic Frequency Control. On eight of the new Stromberg-Carlson models.

There is nothing finer than a
Stromberg-Carlson

ARVIN Sets you up FOR 1938 CAR RADIO PROFITS



Mintelure of Imagination...
Wall Chart Sales... printed
in 3 colors... but one of
a series of colorful and effective
sales helps—all Free with
Arvin Floor Plan Deals. ➔➔



More than 100,000 sets of
play demonstrators...
practical, useful and a real
builder... with Arvin No. 10...

New models . . . amazing performance . . . low prices!

You have all three with the 1938 Arvin Car Radios—plus a merchandising program that enables you to increase sales and profits. The new Arvins with the Famous Phantom Filter are the smoothest, sweetest-playing radios you've ever heard. They get *more* stations, and get them *better*. Arvin's Tailor-Fit idea on speakers and controls—and a complete set for only \$24.95—give you everything to match new cars and customer preferences.

You've never seen such business-building merchandising as the Arvin Floor Plan Deals and the free sales helps that go with them. They really set you up to get more prospects, make more sales and profits. Ask your jobber all about it and order your Arvins now.

NOBLITT-SPARKS INDUSTRIES, Inc., COLUMBUS, INDIANA



Universal Scout Model 5

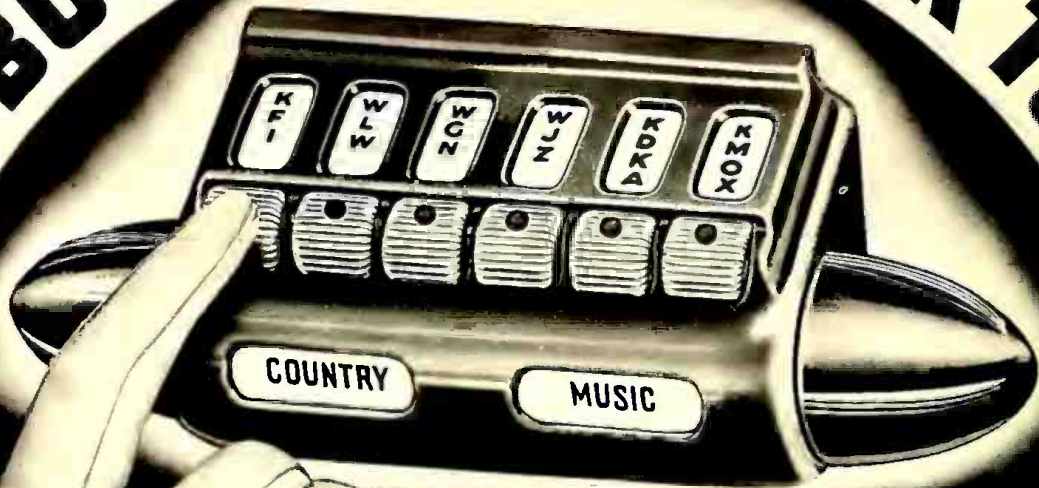
A complete set with special remote control and dynamic speaker mounted in front of radio chassis. Complete set all in one package, only

\$24⁹⁵ LIST
Complete Set

Coming soon! New low-priced
Arvin Car Radio with AUTOMATIC
TUNING . . . watch for it.

AGAIN *Motorola* LEADS

PUSH-BUTTON NETWORK TUNING



6 COLORED
NETWORK
BUTTONS

PUSH A BUTTON
Get Your
Favorite Station
Automatically

ON THE
FAMOUS
ACOUSTINATOR

ELECTRIC • AUTOMATIC • COLORFUL

SEE YOUR
MOTOROLA
DISTRIBUTOR

Motorola

AMERICA'S FINEST AUTO RADIO

SIX "ACE"
FEATURE
MODELS
\$29⁹⁵ to \$79⁹⁵