

Radio

PRESENTS TWO SENSATIONAL MODELS THAT WILL STIMULATE SALES



LMATIC

To Sell for Only THE LOWEST PRICE IN RADIO!

- F.O.B. -

95

Featuring the Amazing Neu

Tuning

And The New Fada-Golden "GLO-DIAL"

Now ready for immediately delivery! Two new Fada models, for AC and AC-DO operation, that smashes all previous conception of radio value. They feature real Automatic Tuning in its most effective form. No motors, no buttons to hunt or push, no dials to spin. A single knob tunes in 6 different stations in split second . . . Accurately! Instantly! Effectively! Receives Broadcast, State Police and Foreign, including all popular International short wave bands 16, 19, 25, 31, and 49 meters. The beauty of the cabinet will win immediate consumer acceptance. Ask your Fada jobber to demonstrate these two model ... or write direct for complete data ... prepare now for your greatest holidar business by featuring these two outstanding Fada Automatic Tuning radios

















NEW! AMPERITE CONTACT MICROPHONE

A contact mike without distortion, Ideal for use on all string instruments. Flatters an ordinary fiddle by giving it the vol-ume and depth of a "Strad"; makes a small piano sound like a "Grand". Unusual high output—can be used on radio sets.

No string changes, no drilling. Attached without tools. Operates with either high or low gain amplifiers. Frequency response, 40 to 9000 cps. Output, -40 db. 25' of cable.

MODEL KTH (Hi-imp); KTL (200 ohms)......\$22.00 LIST KTH or KTL with foot-operated volume control...\$30.00 LIST

NEW! AMPERITE "HAND-I-MIKE"

The smallest velocity made . . . but has an output equal to larger types, —68 db. Frequency range 60 to 7500 cps. Excellent for close talking, and can be used as hand, desk, or stand microphone. Unusually rugged. Size of head, 1" x %" x 2%".

MODELS HDH (Hi imp); HDL (200 oms); with switch, \$22.00 LIST

AN EXCELLENT VELOCITY AT 522.00 LIST

P.A. Men. you do not have to sacrifice quality on a "low-cost" job. This fine velocity, built to Amperite standards, is excellent for both speech and music. Gives flat response without peaks over entire audible range. Reduces feedback, Frequency range 60 to 7500 cps. Output, —68 db. Unusually rugged, not affected by temperature, pressure or humidity. Triple shielded, fitted with shock absorber and swivel bracket. MODEL RAH (Hi-imp.) with 12' of cable; MODEL RAL (200 ohms) with 8' of cable......ONLY \$22.00 LIST

BROADCASTING STUDIOS, please note New Output, -56 db.

The new Amperite Studio Velocity, model SR80n, has -56 db. output, highest in studio velocities available today. The SR80n is now accepted as the finest microphone for studio and recording: (Two weeks' free trial to established studios). Frequency range 40 to 15000 CPS. Triple shielded, fitted with switch (optional), cable connector, and 25' of cable. MODEL

IMPORTANT USES

- 1. The Acoustic Compensator enables you to lower or raise the response of the microphone by the mere flip of the linger: Not a volume control-operation is similar in principle to the sliding panels in broadcast studios.
- 2. Makes the Velocity immediately adjustable to close talking or distant pickup.
- 3. Immediately adjustable to any room condition ... or any type ol job or occasion

Increasing the quality, without increasing the price, is the keynote of the Amperite sales policy. In the new Amperite Velocity. with the Acoustic Compensator, the P.A. Industry has the last word in microphone perfection at a competitive price.

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

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

SALES AIDS FOR THE P.A. MAN

Amperite offers the following co-operation to P.A. Men

- 1. FREE: Window Decal advertising your Sound Service. Size 51/x91/4, finished in 4 striking colors.
 - 2. FREE: Window Display, 11x17.
- 3. Special Sound Equipment Letterheads. Samples and prices on request. Write for these valuable sales helps, and new Illustrated Bulletins, today!

AMPERITE (0. 561 BROADWAY, N.Y. U.S.A.

CABLE ADDRESS



VELOCITY

MICROPHONE



TO CRAMMING. No crowding. No wasted space because of cluttering. That's why the new Fairbanks-Morse refrigerator with its patented CONSERVADOR holds more food than other refrigerators of the same size-that is why 26% more quickly usable space can be proved. You can instantly show why this refrigerator saves time, work, and money, too. Any man or woman can see why there is no hunting, no shifting, no spilling, no stooping. Frequently used items are kept instantly at hand in its exclusive CONSERVADOR-a shelf-lined inner door. No other refrigerator can match the 26% more quickly usable space it creates-none can equal its convenience!

In addition to the F-M patented CONSERVADOR—the feature that makes this refrigerator the only outstandingly different refrigerator on

the market—this one has every other desirable feature. Big, roomy, automatically lighted main food compartment. Lower operating cost that you can back with nation-wide proof of Penny Meter economy. Self-sealing Crisper. Sliding Fruit Drawer. Instant Ice Cube Expeller. Surplus power eliminates all heat wave complaints and service. Illuminated radio-type Temperature Control Dial. Reserve storage compart-

the Fairbanks
tation, are all
close more sa
de
ay.

Here is the be
selling line
able. It is ba

ment for extra supplies. These, plus the Fairbanks-Morse name and reputation, are all reasons why you can close more sales with this new line.

ACT NOW

Here is the best-looking and easiest-selling line of refrigerators available. It is backed by different promotion and advertising plans that will close more sales. There is real profit in it for you. Write, phone, or wire now for the complete story. Fairbanks, Morse & Co., Home Appliance Division, 2060 Northwestern Ave., Indianapolis, Indiana.



lt's a Balanced Program

The Fairbanks-Morse Home Appliance franchise can include refrigerators, radios, and home laundry equipment. You may qualify for one or all in your territory. Investigate now.

FAIRBANKS-MORSE

REFRIGERATORS . RADIOS . WASHERS . IRONERS

USABLE

QUICKLY SPACE! "NEW, STREAMLINED BEAUTY THAT SELLS ON SIGHT"

"MORE SALES-CLINCHING NEW FEATURES"



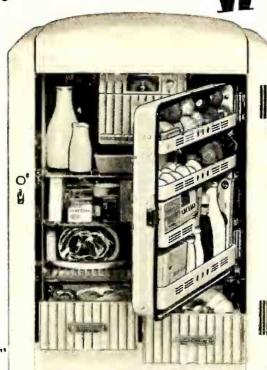


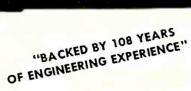
"TWO-FIFTHS OF ENTIRE CONTENTS CAN BE REMOVED AND REPLACED WITHOUT OPENING MAIN FOOD COM-PARTMENT AND EXPOSING ITS CONTENTS TO WARM AIR"

"NEW ICE CUBE EXPELLER SNAPS ICE CUBES OUT INSTANTLY"



"THE ONLY THAT OFFERS PROSPECTS REFRIGERATOR SOMETHING DIFFERENT!"





USABLE SPACE BECAUSE OF THE CONSERVADOR"

"DIFFERENT PROMOTION AND ADVERTISING PLANS THAT WILL CLOSE MORE SALES"



"TWICE AS MANY THINGS AT YOUR FINGER TIPS"

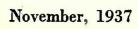


ILLUMINATED RADIO-TYPE TEMPERATURE CONTROL DIAL"

"RESERVE STORAGE COMPARTMENT (NONREFRIGERATED) IN ADDITION TO THE 26%"

FAIRBANKS-MORSE

REFRIGERATOR WITH Conservador





large percentage of the people you want to sell radios to have done business with me before.

They are the people who buy on the time-payment plan.

I've helped them in their purchases of automobiles, refrigerators, washing machines and other electric appliances. They are friendly to me because I've

handled their financing courteously and without friction.

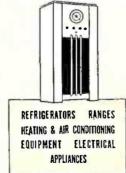
The dealer who offers them my service is going to be a step ahead of the competitor who hasn't my help in building the customer-confidence that helps close sales.

You will find my cooperation valuable in other ways too.

I know people and conditions in your territory. I know how to investigate the credit of your prospects so as to eliminate the bad risks. I remit your money to you promptly and take the problems of collections entirely off your hands.

I am the local manager of a Commer-

cial Credit office. I operate from 195 offices in principal cities of United States and Canada. Adopt Commercial Credit Company financing service for your time-payment sales, and let me work with you to get you the maximum profit.



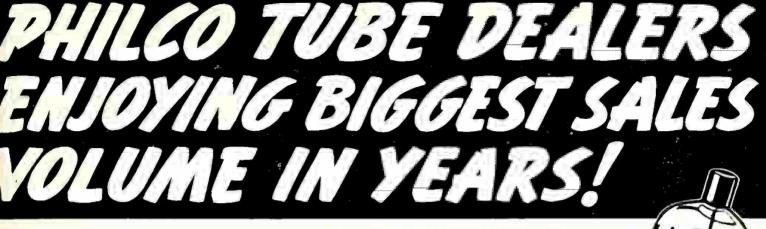
COMMERCIAL CREDIT COMPANY

COMMERCIAL BANKERS CONSOLIDATED CAPITAL



HEADQUARTERS: BALTIMORE AND SURPLUS \$65,000,000

SERVING MANUFACTURERS, DISTRIBUTORS AND DEALERS THROUGH 195 OFFICES IN THE UNITED STATES AND CANADA



THANKS TO THE BIG 50,000 CONTEST

THOSE popular Philco Mystery Contest Programs . . . broadcast weekly over 240 stations . . . are pulling thousands of prospects into Philco Tube dealers' stores. They come in for contest details and Official Entry Blanks . . . and a surprisingly large percentage go out with new Philco Tubes under their arms!

This \$50,000 Radio Mystery Contest is clicking! And the way to cash-in is to tie-up in every way possible. Most important, be sure you have sufficient Philco Mystery Tabloids (which contain the rules and Entry Blanks). The next issue is now ready. Are you all set to get the extra tube sales this Philco Contest is creating?



PHILGO The Easiest Tubes in the World to Sell

PLECTRIC MOTOR SRESS BUTTON

BETTER-COSTS LESS

LEY PRESTOTUNE

As a smashing climax to the introduction of the greatest radio line in its history, Crosley presents these spectacular Prestotune Electric Press Button Tuning radio models. Combining as no other radio on the market does, such outstanding selling features as advanced electric tuning, smart cabinet styling by the world's foremost design authority, and sensationally low price—the Crosley Prestotune has met with instant dealer and customer acceptance, wherever shown. Until you have seen and heard these marvelous new radios you can never appreciate either their remarkable performance or amazing value. Have your Crosley Distributor demonstrate the new Prestotune for you today and put this sure-fire salesmaker on your floor now for the coming buying season.



CONSOLE

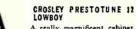
Press Button Tuning with

Station controls Adaptable for use with remote control New type
selector switch permits quick and easy adjustment. Large Mirro-Dial; 12" plug-in type
speaker; 3 gang condenser. Variable selectivity; bass compensation on volume control.
Receives American and Foreign brondeaste,
3 bands—535-1850 Kc.; 1900-6600 Kc.; and
6500-22,000 Kc. Attractive V-type front console of
quarter stripe walnut, hand
rubbed finish. Dimensions: 41½" high. 25%;
wide. 12¾" deep



CONSOLE

A marvelous 12-tube allwave, Press Button Tuning,
radio in a massive modern cabinet. Receives
American and Foreign broadcasts. 3 hands,
535-1725 Kc.; 2000-6800 Kc.; and 6800-22,000
Kc. Eight press buttons. Pluein type adaptor
for use with remote control. New type selector
switch for use with press buttons, permitting
quick and easy adjustment. Large gold reflector type Mirro-Dial. New type type control; 3 gang condenser; I. F. variable selectivity,
Base compensation on volume control. Sloping
panel cabinet of highly figured stump walnut. Pilasters and base of quarter
at type and base of quarter
stripps with Dimenstripps and base of quarter
at part of the property of the



A really marnificent cabinet bousing a marrelous 12-tube radio with electric press button tuning. Receives American and Foreira broadcasts 3 bands, all-wave. Recessed controls. 8 press buttons with remote control. New type selector switch. New continuously variable tone control. 12 electro-dynamic speaker of the plug-in type 3 gang condenser. I. F. variable selectivity, Parallel Fentode output, 14 watts. Top, sides and front of the cabinet are ma-

Parallel remode output, 14 watts 15p, sides and front of the cabinet are mahogany with decorative maple inlays Gold trim on base and grille. Hand rubbed frinish. Dimensions: 30° birth, 48° wide, 15¾ deep.



Quickly, accurately, electrically your eight favorite stations may be tuned as desired. . by simply pressing a button. The Crosley Prestotune is also adaptable for remote control. Sit anywhere in the room and "press button tune" without leaving your chair.

(Prices slightly higher in South and West)

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



Table Models cover every need from "price" models to fine musical instruments.



Arm-Chair Models meet rodio's lotest style trend—and add new convenience in tuning.



Console Styles in rore woods and the latest designs cover every price range.



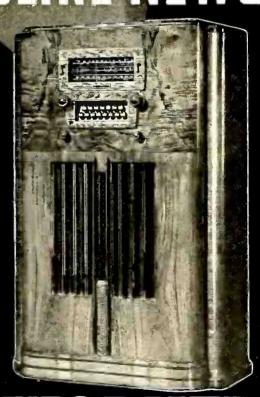
Magic Keyboard Models surpass anything known before in radio value and superberformance.



A LANDSLIDE of approval has greeted Stewart-Warner's sensational Magic Keyboard everywhere—because it leads in . . .

SPEED . . . goes direct to the station instantly! FLEXIBILITY . . . takes any 15 stations in any order! SIMPLICITY . . . adjusts from the front, without tools! QUIETNESS . . no hum or buzz! EASY OPERATION . . . no hand switches to forget! ACCURACY . . . no big errors to require excessive A.F.C.!

Add the complete range of models and prices—the exclusive Stewart-Warner-C.I.T. Sales Finance Plans—Horace Heidt's hard-selling Coast-to-Coast broadcasts—and you'll see why it will pay to get the whole story now!



STEWART-WARNER MAGIC KEYBOARD



EVER before has any radio manufacturer remotely approached the ten million mark. Now Philos has done it . . . and it's an event that calls for a real celebration!

And that's just what Philco, its distributors and dealers are doing. From coast to coast, replicas of the Ten Millionth Philco occupy the place of honor in special commemorative window displays. All the weight of Philco advertising . . . stepped up to double page space in the great national weeklies . . . plussed by tremendous added space in the newspapers . . . has been

thrown behind this gigantic promotion.

It's the greatest concentrated effort ever put behind a single radio . . . the greatest selling drive ever devoted to boosting your unit sales to new high levels!

Ten million buyers know what a marvelous radio Philco builds! Thousands of new enthusiasts join that enormous army of Philco owners daily. And this Ten Millionth promotion is going to speed up enlistments in that Philco army!

PHILCO RADIO & TELEVISION CORPORATION

StafDARRELL BARTEE
J. E. NEARY, JR.
M. H. NEWTON
B. V. SPINETTA
VINTON K. ULRICH

LEE ROBINSON
Sales Manager



ORESTES H. CALDWELL

M. CLEMENTS
Publisher

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Vol. III, No. 11

DULL AUTUMN ADDS UP TO BRILLIANT CHRISTMAS

★ Listening carefully, we've heard veteran merchandisers point out in firm syllables that Christmas buying is always a dependable quantity. Even during the dismal years of the 1929-33 depression, the Christmas period could be depended upon to furnish peak sales of the year. In fact, all the faltering sales during the year are counteracted by an appropriate leap during the Yule session.

While radio has lacked the proper totals this Fall, many merchandisers sense that this is merely delayed business, and that 1937 purchases held up during September and October will be released soon, to add an extra thump to the customary rush in November and December. Thus, the makings of the merriest radio Christmas the trade has ever had.

NOW TALK MARCH FOR "RADIO CHECK-UP MONTH"

★ Plans for a national radio check-up month, to be conducted cooperatively by radio manufacturers, radio dealers and servicemen, and the electrical utilities, were discussed at conferences of interested parties held at Philadelphia and New York during October and November.

Earlier proposals that January be adopted as National Radio Month by the utilities were opposed by reason of the shortness of time for preparation, and March was suggested as the earliest possible month.

George R. Conover of the Electrical Association of Philadelphia is committee chairman in charge of planning National Radio Check-up Month.

Under the plan, radio manufacturers would be expected to cooperate in producing printed matter to be mailed out with the utilities, customers' bills during March. The electric com-

panies have similar promotions on other appliances, but have overlooked radio which, as now pointed out, contributes some \$150,000,000 annually to the utilities' income.

INSTALLMENT SALES GROW

* With farm income this year reaching nine billion dollars—up 14 per cent compared with last year, and only 12 per cent under the 1929 peak—and industrial labor generally enjoying a 10 to 15 per cent increase over 1936 earnings, installment buying has also been going up to new high levels.

In 1929, 13 per cent of total retail purchases were made on credit. By 1936 this class of business had again risen to 12 per cent of total retail buying.

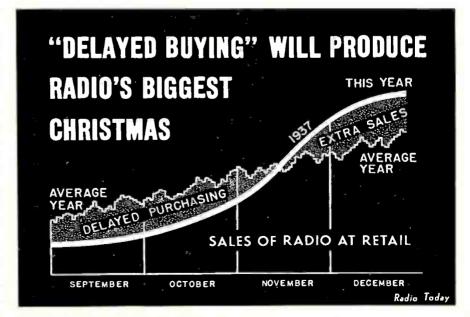
Figures for 1937 installment-buying are not yet available even as estimates, but President Roosevelt has appointed Malcolm Morrison, formerly of Brookings Institute, to a special berth in the Department of Commerce to report on installment volume.

"WIRELESS" REMOTE CONTROL FOR RADIOS

★ A new carrier-wave method for remote control of radio receivers, which eliminates troublesome extension cords, was demonstrated during the Rochester, N. Y., I.R.E. convention, Nov. 10.

A small control box fitted only with an attachment-plug can be plugged in at any outlet in the room or house. and then from it, by pushing buttons, the remote set can be turned on or off, volume up or down, or any of six stations tuned in. Turning on the set is accomplished without any tubes burning in the receiver or controls. For this purpose, a new cold, gas tube is used. The carrier frequency develops an emf of a volt or more, which when fed into a reactive circuit, is stepped up to 30 volts, enough to break down the gas tube and allow the power current to flow.

The new system was developed in the RCA License Laboratories, and is known as "teledynamic control by selective ionization." The demon-





Jack Hoffman, Trav-ler president, has added a night shift at Chicago plant.

strator equipment will be shown to radio manufacturers, with the idea of having it incorporated in 1939 models. This carrier-frequency remote control is expected to add about \$50 to the price of the set.

ATTACK OF ART

* It would be a great pity if all the super-engineered sets in the 1938 lines were not satisfactorily cabineted. Technical luxury of the new receivers makes them the No. 1 item of the modern household, if they are otherwise OK. Plenty of smart designers say they are not.

Many of these aristocrats of line

and color are without a radio client—icily aloof from radio as is. They say that radio sets could do with less bulk, more attention to tuning knobs, further use of circular forms, more tooling, simple identification of radio as a musical instrument.

The problem gets more tangled as we notice inclined panels, chairside effects and remote control as important radio modes. More material for the art boys to grumble about, or even to improve.

SERVICEMEN'S ASSOCIATION ELECTS OFFICERS, DEFINES POLICIES

* The first Board meeting of the new RSA (Radio Scrvicemen's Association) was held in Chicago, Oct. 11, and elected the following officers: T. P. Robinson, Dallas, Tex., President; Albert C. W. Saunders, Boston, Mass., Vice-President; Ingvar Paulsen, Boston, Mass., Secretary; Lee Taylor, Chicago, Ill., Treasurer.

Purposes of the RSA are thus defined in the Association by-laws: "Its object shall be the promotion of radio service engineering and salesmanship; the furtherance of national relations; the advancement of the theory and practice of radio servicing; representation of radio servicemen in legislative affairs; the maintenance of fraternalism and a high standard of professional conduct and living amongst its members; and the promotion of such other activities as are allied thereto."

An example of democratic control is seen in the jurisdiction granted



Harold J. Mattes, busy with orders as Belmont Radio Corp.'s vice-pres.

local chapters with respect to memberships from in their immediate locality. The national division cannot accept a member without the approval of the local chapter, as well as any recommendations that may be made from other sources.

Through the anticipated support and cooperation of the manufacturers it is planned to have this new organization distribute to its members advance circuit diagrams, instruction material and product information. This service, plus a monthly organ and advertising material, as well as membership decalcomania and certificates, are among the RSA advantages offered servicemen.

Servicemen and independent service organizations are invited to write to Radio Servicemen of America, Inc., 304 South Dearborn Street, Chicago, Ill., for membership blanks.

45% OF RADIOS NEED SERVICING

* The public utilities have an obligation to their customers and to themselves, to see to it that the radio receivers operating from their lines are in the best possible condition, comments H. C. Bonfig, RCA, Camden.

"Fifteen per cent of all radios less than five years old are inoperative, and 30 per cent are in only fair or poor operating condition, which of course results in less use. It is estimated that losses in listening time due to conditions that may be remedied may be said to be costing the electric light and power companies approximately \$15,000,000 in annual revenue."



Featuring three Admiral execs on an outing, left to right, Ross Siragusa, president, Ken Turner, chief engineer, and Lynn Park, treasurer.

OPERATING COSTS OF G.E. RADIO DEALERS

* After noting averages of retail operating costs from RADIO TODAY'S surveys of radio dealers, C. H. Bell of the radio sales division of General Electric Company, Bridgeport, Conn., sends us the following average of operating statements of dealers handling General Electric radio.

Gross Margin	Cent
Operating Expenses	
Store Management, Buying	è
Sales Direction	4.0
Rent, Light, Heat & Janito	
Service	5.4
Sales, Salaries & Commissions.	
Advertising & Sales Promotion.	
Delivery & Installation	
Accounting & Collection	
Misc. and Reserves (Bad Debt &	
Depreciation)	. 3.0
Estal Operating Elements	00.4
Total Operating Expenses	
Gross Profit	10.0
Other Expenses	
Service	. 2.5
Min. Trade-ins and Other	
Allowances	10.0
Total Other Expenses	12.5
m	_
Total Operating & Other	
Expenses	
NET PROFIT	4.1

Comparing these figures, with the RADIO TODAY averages reported in recent issues, Mr. Bell comments: "You will note that we project 10 per cent roughly for salaries, wages and commissions, whereas you project 18.6 per cent. However, we have 12.5 per cent covering service, minimum trade-ins and other allowances, whereas your breakdown does not show this detail.



William Dubilier, recently honored on the 25th anniversary of the Dubilier Condenser Co. of England.



Framed by friendly woods, the very active Jack Scanlan Muter vice-pres.

"Frankly, we believe that our net profit of 4.1 per cent is more in line for all dealers nationally rather than your 11.7 per cent. However, your figures are more recent than ours or those of Dun and Bradstreet, so that with the recovery of the radio business, a figure somewhere between 4 per cent and 11 per cent is probably correct. We therefore appreciate the work that your organization has done in compiling this information for the industry."

SIMPLE DESIGNS AT PREMIUM

* Check-up on metropolitan department-store furniture and radio departments indicates that store executives in that group prefer radios simple in line as fitting the demands of the greatest number of customers. Interest in consoles dominates this market. Most purchasers accept standard models and designs; about 10 per cent of prospects ask for special furniture models. A surprising number of inquiries for leas on consoles, was reported from women customers.

FIVE TIMES TO THE MOON

* Whilst we imagine radio to be a "wireless" arrangement, the trade is actually criss-crossed with miles of it. String five fine copper wires between here and the moon, and you'll have about the length of wire that goes into radio sets in a year, at the current pace.

In the same period, about 2,000 carloads of steel and 4,700 of lumber are used in receivers.

NEW YORK RADIO GYPPING GIVEN THE WORKS

Seven radio dealers in New York City convicted of out-and-out misrepresentation of radio to the public have been hauled into court and penalized with sentences ranging from 30 days in jail to \$250 fine. Arrests were made June 29, cases came to trial Oct. 4, sentences were imposed Oct. 15.

Charges under which these dealers were prosecuted were (1) false and misleading advertising, (2) sale of merchandise with intent to defraud, and (3) affixing false and counterfeit trademarks to merchandise. Penalized dealers include National Radio Stores, Inc., Gem Radio, Inc., Oscar Nadel doing business under name of Cortlandt Radio & Television Co., Furst Radio Corp., Bell Radio, Inc., Martin Silvers doing business under name of Walters Radio & Television Co., and Holland Radio, Inc. Five of them pleaded guilty, two were

tried and convicted.

Legitimate radio manufacturers who resented the mis-use of their trademarks were represented in the proceedings by the law firm of Scandrett, Tuttle & Chalaire, 30 Pine St., New York City. Bernard Phillips of that firm declares that "We have every reason to believe that as a result of these convictions the radio industry both in New York and throughout the country will be considerably benefited by the eradication of the form of racketeering in which the defendants indulged." Mr. Phillips is thus identified with a national movement to clean up the practice of "foisting upon an unsuspecting public shoddy merchandise and representing that it was manufactured by legitimate concerns '



John F. Ditzell, Stewart-Warner's radio and refrig. sales mgr., in the news again as new "box" line is shown Nov. 11-12 at Chicago convention.

COUNTERFEIT SETS, FAKED WITH

Radio Today buys and tests a "14-tube" receiver. Finds 8 of the "tubes" are mere resistors! Industry must stamp out evils, set up real standards for buyers,

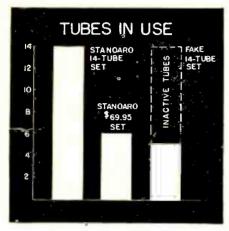


Chart 1—Only five of the tubes in the fake 14-tube set are actively used as amplifiers, detectors, and rectifier.

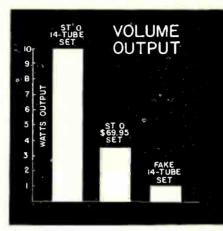


Chart 4—On loud musical passages the fake 14-tube set distorts because of insufficient volume output.

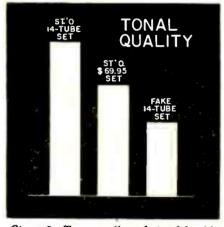


Chart 2—Tone quality of the fake 14tube set is definitely inferior. In addition a loud and annoying hum is present.

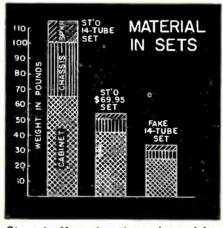


Chart 5—Note that the entire weight of the fake 14-tube console is less than the chassis of a standard 14-tube set.

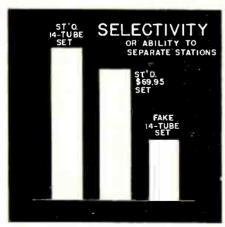


Chart 3—In many locations the selectivity of the fake 14-tube set will be inadequate to separate all desired stations.

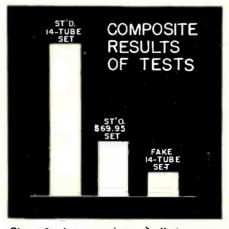


Chart 6—A comparison of all the tests made shows the fake 14-tube set is a poor value even at the price quoted.

* NEW YORK CITY has just witnessed a clean-up of the false-name racket in radio. Half a dozen dealers who were found guilty of using standard names on stencilled sets, have gone to jail or paid fines, as the result of a searching investigation by the district attorney's office.

But there are other rackets besetting the radio buyers of New York and similar metropolitan centers. Examples are the flagrant counterfeiting of popular models, and the misleading advertising of "14-tube" and "11-tube" sets in which half the so-called "tubes" are inoperative in a radio sense.

Wake up!

When the public is hoodwinked into believing that a 14-tube console receiver can be sold for the sum of \$34.95. RADIO TODAY believes it's time to wake up the decent elements in the industry for their own protection. Particularly since, to the public the "14-tube" claim is synonomous with many such features as electric tuning, AFC, all-wave, and high-fidelity reception characteristics.

When this "14-tube" receiver—claimed as listing for \$69.95—turns out to be not as good as an average six-tube receiver, it's time for Radio Today to acquaint the radio men of America with the facts.

When this bargain receiver has more ballast tubes than amplifying tubes, it's time to get the industry behind a campaign to eliminate the whole indefensible practice of using more than the necessary number of tubes, which preys on the gullible radio set buyer. And RADIO TODAY for the protection of the public, the radio dealers, and radio manufacturers, is taking leadership in this clean-up.

What kind of a "value" this fake "14-tube" radio really is, the reader will find analyzed and described in these pages. Comparisons are made with legitimate receivers so that radio dealers everywhere can show their customers why they should buy quality receivers manufactured by repu-

The fake 14-tube set has an ordinary midget chassis and speaker, connected to a second chassis having 7 useless resistor tubes in series.

table organizations and sold by reputable outlets.

Becoming curious about the newspaper advertisement at right. Radio Today investigated this set, to discover the secret of its tube components, and then purchased one of these fake "14-tube" receivers and had it measured by one of the outstanding engineering laboratories of the country. The results show unequivocally that the receiver is no better than an average 5-tube receiver manufactured by any of the reputable companies. The figures and charts given on these pages are accurate and backed by the reputation of a reputable laboratory which made the measurements.

First of all, the fake "14-tube" receiver has none of those extra features that are associated with sets

EVERYBODY LOSES, EVERYBODY SUFFERS—WHEN DUMMY-TUBE. COUNTERFEIT SETS ARE SOLD

The Purchaser is gypped in what he is led to expect.

The Dealer is forced to compete against false offers.

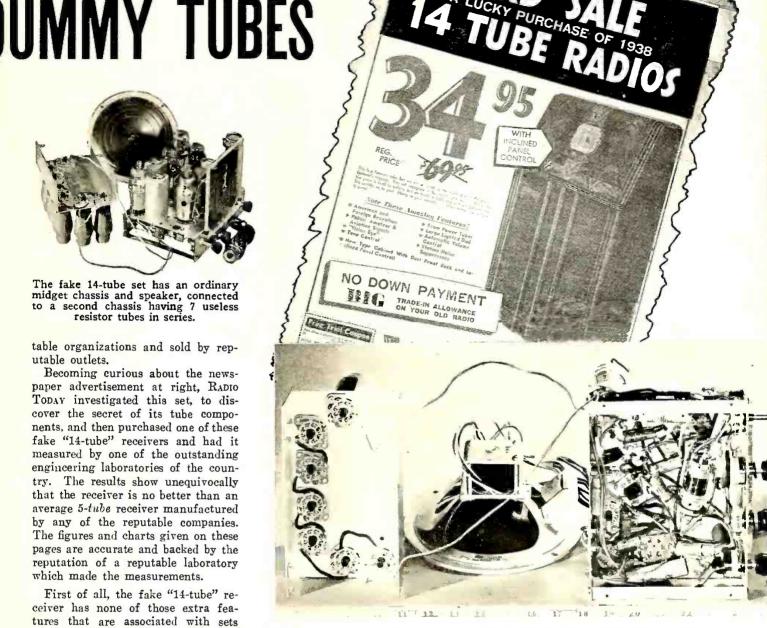
The Jobber sees local business demoralized.

The Set Manufacturer suffers unfair competition.

The Parts Manufacturer is forced to cut prices.

The Broadcaster wastes his money on quality programs.

The Public is given a false sense of radio-set values.



Taking the above newspaper ad to the store with him, to explain exactly what was wanted, "Radio Today's" representative purchased for \$34.95 cash, the set shown. Lower unretouched photograph is an inside view of this faked "14-tube" set, showing pup chassis at left with 7 resistor "tubes" in series. As every radio man will recognize from the wiring, these "tubes" are dummies so far as any radio function is concerned. (Later ad quoted same set as "\$89.50 regular price" see next page-instead of \$69.95 list price cited above.)

employing upwards of 8 tubes. In fact in many respects the set is not even so good as many of the standard five and six-tube chassis.

To illustrate graphically the inferiority of the fake "14-tube" console, charts based on laboratory measurements are presented on opposite page. In each chart the left-hand bar represents a standard 14-tube set which was chosen as being typical of the lower-priced 14-tube models. (Had an expensive 14-tube job been measured, the superiority would have been even more marked.) The center bar in the charts represents the characteristics of a standard \$69.95 console. The right-hand bar illustrates the fake "14-tube" receiver with its "list price" of \$69.95.

Chart 1 tells the story about the tubes. The fake "14-tube" set has only five active tubes-less than in the standard \$70 consoles made by several well-known manufacturers. In the faked set, eight ballast tubes in series are used, seven of which are mounted on a separate chassis connected to the main chassis by two wires, as shown in the accompanying photographs.

A summation of the measured char-

acteristics of the three different receivers is shown in Chart 6. On this basis, the standard \$69.95 set is more than twice as good as the fake "14-tube" set listing at \$69.95. In other words, even if the sale price of \$34.95 is considered, the fake "14-tube" receiver is a poor value—overlooking its deliberate misrepresentation as a 14-tube set.

Face situation

Thus, the reader has revealed to him another discouraging aspect of the deplorable situation which confronts radio, not only in New York City, but in many other American communities. Every radio man must face these facts.

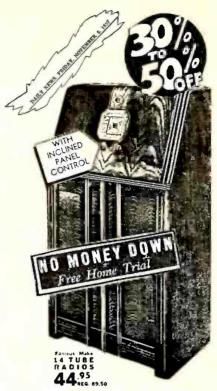
At a time when other American industries are building constructively and instilling confidence in their products, radio stoops to the methods of the gyp and shell-game artist.

In a season when the great automobile industry is creating new purchasers, radio offers an advertising message whose only refrain is cutprices and skimped-merchandise.

It is time the radio industry policed itself against these evils. To cope with misleading claims radio will need standards and definitions. It will need the united front of engineering opinion, reflected in the IRE and RMA committees, as to what kind of an envelope legitimately constitutes a "tube" in defining a radio set—as to what standards are essential when setting up claims.

The industry must clean its own house.

Radio must do its own policing.



Above ad appeared just as this issue went to press. Imitating the same popular radio model, recognizable by every radio man, this ad (in contrast with that on preceding page) raises the sale price by \$10 and the "regular value" price by nearly \$20!

What we're doing

Meanwhile RADIO TODAY will do its part in combatting these evils—and in reporting them to the authorities, to whom radio business men must look for protection—the Federal Trade Commission, the Federal Communications Commission, the Better

Business Bureaus, national and local, and radio's own trade and industry organizations.

If instances of radio racketeering are going on in your community, send in the evidence to RADIO TODAY. We'll see that it is placed before the proper authorities who can help stamp out these vicious practices.

LABORATORY TESTS OF FAKE "14-TUBE" SET

In the matter of tone, the fake "14-tube" model is greatly inferior to either of the other two models, as shown by Chart 2. And because of the flimsy cabinet, the bass or low-frequency reproduction is marred by resonance effects that give a rattling nasal sound when certain notes are played.

Chart 5 gives a rather fair indication of the type of construction used in the various sets. Note first that the chassis alone in a typical 14-tube receiver weighs more than the entire fake "14-tube" set, including chassis, speaker, and cabinet. In the standard \$69.95 set there is an 11-inch speaker weighing approximately 4 pounds, yet the fake "14-tube" receiver has only an 8-inch speaker weighing less than 3 pounds, which is roughly one-fourth of what is expected in a standard 14-tube job.

The cabinets of the fake and standard 14-tube sets are so different that any comparison is almost absurd. Even the cabinet on the standard \$69.95 set weighing 40 pounds is infinitely superior to the flimsy 25-pound cabinet supplied the fake set.

(Continued on page 45)

SEVEN STEPS TO STOP THESE RACKETS

- 1. The radio industry must clean its own house—must police itself.
- 2. Engineering committees must set up standards ("What constitutes a tube?")
- 3. Radio Trade associations must recognize present evils, and stamp them out.
- 4. Federal Trade Commission should investigate cases and issue "Cease and Desist" orders.
- 5. Federal Communications Commission can properly study radio-trade evils as having profound effect on public's listening satisfaction.
- 6. Radio Today is bringing present rackets to attention of proper authorities.
- 7. Readers who know of similar evil practices in their own communities are urged to send in the evidence to Radio Today, which will lay the facts before the proper policing agencies.

RADIO FOTO REVIEW



Here's the Kadette Clockette which annexed a coveted award in the Modern Plastics Competition.



McMurdo Silver, right, had Douglas Fairbanks, Sr., as a first customer when British McMurdo Silver opened.



All in fun, George M. Cohan, center, appears as President Roosevelt in the NY hit musical revue, "I'd Rather Be Right." Here, the "Supreme Court" is burlesqued as FDR's radio echo. The nine old men are clutching Emerson receivers.



An Indiana dairy man records the fact that he gets more milk since he started contenting his cows with a Fairbanks-Morse radio—a new farm trend.



Networks offer play-by-play reports as football broadcast interest hits a peak this month. Haynes Log lists 58 big games between Nov. 20th and the 25th.

FLIP ON THE CHRISTMAS LIGHTS!

To promote the master idea of more radio sets per family



A trim used at Ward's in Niles, Mich.

* HOLIDAY HOPES this year are based mainly on real snap in promotion.

Action is the keynote of the gift business in 1938. The radio industry is interested in special sales pressure to land several of the classy new receivers in each home.

Dealers are keenly conscious of the fact that 'they've never had their hands on finer merchandise.

report that some of it has already been sold as gifts, via pre-Christmas deposit plans. The rest of it depends upon unending effort with the tempo increased over last year.

What form this action will take is seen in actual reports from radio experts, speaking from experience on selling at Christmas.

Wilmington, Del.

MacAbees Radio Co. circulates the idea that for the hundreds of gents who want to buy a radio as a gift for one of the opposite sex, the store has a woman advisor. Mrs. Thomas Mac-Abee agrees to give the men a satisfactory idea of what women are likely to prefer in the way of a receiver. She considers matters of style, taste, and price from what the male customer tells her, applies the woman's viewpoint and keeps him from buying the wrong thing. She has belearned to use the information where it will do the most good.



Color for Christmas—Arvins, Fadas and Kadettes in many shades are grouped to advantage by "Radio Stylist" Erin Bradburn, just added to the staff of Bradburn Radio, Houston, Tex., to handle "fine models for fine homes."



Radio windows divided into panels and banked with a snow pattern—an idea from Lowe's, New Rochelle, New York.

Scranton, Pa.

Scranton Talking Machine Co. uses a trick in radio display which sets the radio holiday scason apart from other buying periods. According to Bert Sachs, store executive, a "circular" theme in windows has netted excellent results. Instead of the conventional straight lines in squares and oblongs, a shift is made to circular effects in placards, background pieces and posters. Roundness is accented in every unit of the display; shoppers find the change a pleasant and attractive one.

Havre de Grace, Md.

Eldon Leithiser goes after the male heads of families at Christmas time. He operates on the theory that new models are the ideal gift from Father to members of the family—the perfect "way out" of a gift problem which may be complicated for the busiest person in the household. Mr. Leithiser believes that it is easier to sell a donor on a gift which may be of some use to himself at times. Of course nothing is openly said about this angle in sales talks.

Binghamton, N. Y.

At Weeks & Dickinson, radio manager H. J. Darch has noticed that parents are increasingly interested in anything that will keep members of the family at home. Declaring that radio has the finest possible solution for this problem, Mr. Darch plugs the types of programs which interest the younger set, explains to parents exactly what a radio gift will do to keep the family together. He has examples to prove his argument, without revealing local names. He convinces prospects that new models are "naturals" as fireside magnets.

Sunbury, Pa.

While others are talking about the magnificence and the glory of radio as a gift, Guy Foltz of Bittner's store steadfastly believes that holiday shoppers are mainly interested in ease and simplicity in buying. He tells prospects that other selections have to pass a series of tests in the matter of appropriateness, but that radio is instantly OK because of its very nature. His argument fits well into the "rush" atmosphere of the wild buying period in December.

Wilmington, Del.

"A lot of bosses give gifts to employees and a lot of employees select things for their bosses," reports John Evans of Stern & Co. Indicating that here is a radio augle that may have been neglected, Mr. Evans points out that a lot of extra funds are flying around in pay envelopes at Christmas time. His experience has been that many such radio purchases are of the "last minute" kind, but there is an extra volume to be built up if radio dealers will watch the Christmas plans of firms where the payroll is extensive.

Scranton, Pa.

Modern Christmas merchandising in radio means consoles for men and table models for women, thinks Mr. Blatt of Stoeher & Fister. This is due to the fact that men have become more interested in the new improvements in short wave reception and women have developed an appetite for second and third sets in bedrooms and kitchens. Mr. Blatt has hit on this method of specialized appeal after analyzing what he considers the major trends in 20th century preferences in radio homes.

Binghamton, N.Y.

Frankly W. H. Cargill reports that he has found many hesitant Christmas buyers of radio because of its "impersonal" nature. Acquaintances have told him "I sure wouldn't want anybody to give me a radio for Christmas—it doesn't seem like a personal thing to do and gifts are supposed to be personal!" Mr. Cargill gets around this by suggesting the use of an additional smaller gift to accompany the radio—some inexpensive item which fits in with what the prospect thinks is personal. He has



Extra attention to window display is part of this year's "faster promotion."

a list of such items and finds it extremely useful in clinching radio gift sales.

New York City

Five methods to overcome price resistance by buyers were disclosed during a recent symposium held by the Sales Executives Club of New York:

1. Don't be ashamed of how much your product costs, but be proud of how much it is worth, and sell accordingly.

1938
Consoles
Wall radios
Kitchen sets
Car receivers
Bedroom radios
Personal radios
Chairside models
All-wave receivers
Play-room receivers
Portable combinations
Radios with bar fittings
Record-playing instruments
Phonograph-radio combinations

FAMILY XMAS TREE

- 2. Quote price not as an outgo for the customer, but as an income, relating values in terms of his own experiences.
- 3. Dramatize and sell your prices just as you do your product.
- 4. Keep prices flexible in retail selling so as to be in a position to hit the psychological price.
- 5. Visualize the price in such a manner to the consumer that her purchase will be considered as replacing only minor expenditures.

Christmas Club

National release date for all those dollars to be forwarded to Christmas Club members throughout the nation is Dec. 1. It's a green light for radio merchandisers—a signal for set sellers to go out and promote—and re-promote until they cinch their share.

As an indication of what the affair amounts to, last year the Clubs released \$355,000,000 to some 7,500,000 persons who had thriftily been saving up for the holidays. Estimated average amount per Club member was \$46.50. It was fed back to the public via 5,500 banks.

A radio sales executive has remarked pointedly that, past all the tony appeal of new chairside models, in one respect the trend is unfortunate. Easy chairs are now a regular item in radio stores. Result: dealers have a tendency to sit!

RADIO AT N. Y. AUTO SHOW

- telescopic cowl antenna gains popularity

- average price up 15-20% over last year

* That auto radios are more popular than ever is emphasized this year by the exhibitors at the New York Auto Show, in that nearly every new car is shown equipped with radio and facilities for easy installation incorporated in the structure of the car when built at the factory. The most outstanding feature of this year's auto radio installations is electric push button tuning used by Chevrolet. In this set made by Crosley the push buttons are individually lighted by small bulbs, thus providing for easy selection of several stations. electric motor for selection and temperature compensation of the tuned circuits provides stable operation. Another safety feature is that the controls are mounted higher up on the instrument panel where it is possible for the driver to operate the radio with the least danger to driving.

Rear seat speakers

Athough radio is as yet not standard equipment on the popular and medium priced cars, optional plans for installation are provided for by every manufacturer. Header or "ear level" speakers are becoming more popular, as is shown by the increase in such installations by Buick, Cad-

illac, Nash and Pierce Arrow. Some of the other cars have provisions for the addition of such speakers at the option of the buyer. The convenience of the back-seat riders is being taken care of by the provision for rear-seat speakers. These speakers costing \$5 to \$8 are optional equipment with Chrysler, DeSoto, Plymouth and Dodge.

Advances have been made in the design of antennas. The old chicken-wire roof type has been superseded almost entirely by the running board or cowl types. Only four cars shown still cling to the roof type. There is a most decided increase in the popularity of the telescopic cowl type of antenna this year mounted on the left side near the radio set. Many of the manufacturers are showing these antennas in their installations.

A few of the auto manufacturers who have provided for running board antennas have the running board insulated from the frame of the car so that the antenna may be fastened directly to the board without danger of grounding, or the running board itself may act as the antenna. Running board types are of the rigid-rod construction which are not likely to be damaged from road travel. In addition, such design prevents, to a large extent, danger of accidental grounding due to vibration or impact.



Newest widespread trend in auto-radio design is the placement of speaker unit behind a grille on the instrument panel.

RADIO SETS IN 1938 CARS

Make of Price Type of

Make of Car	Radio	Installed	Antenna
Buick	∫R.C.A.	\$63.00	R.B. L & R
Dutck	R.C.A.	73.00	R.B. L & R
Cadillac	Cadillac	65.00	Cowl
Cadulac	Cadillac	95.00	Cowl
	R.C.A.	49.75	
Chevrolet	R.C.A.	53.95	
	Crosley	66.50*	
Chrysler	Philco	57.90	R.B.
De Soto	Philco	57.90	R.B. L & R
Dodge	Philco	54.95	R.B. L & R
Ford	Philco		Cowl
Graham	Philco	62.50	Cow!
Hudson	R.C.A.	53.00	R.B. L
	R.C.A.	63.00	R.B. L
Hupmobile	Wells-	79.50	Roof
114	Gardne	r	
T = f====44=	Philco	50.00	Cowi
Lafayette	Philco	65.00	Cowl
Nash	Philco	65.00	R.B. or Cowl
Lincoln	Philco	(85.00 to	Roof
Lincoln Zephyr	Philco	135.00	Trunk lid
Oldsmobile	Delco		Roof
Packard 6, 8, 12	Philco	65.75	R.B. L & R
Packard Super 8	Philco	80.00	R.B. L & R
Pierce Arrow	Philco	80.00	Roof
Plymouth	Philco	56.00	R.B. L & R
Pontiac	Gen.	53.95	R.B. L & R
	Motors		
Studebaker	Philco	59.00	Cowl
Terraplane	R.C.A.	5 3.00	R.B. L
Willys	∫Philco .	45.87	Cowl
W HIYS	Crosley	28.50	Cowl
*Electric push-button tuning. R.B.—Running board			
L-Left. R-Right			
	-B		

Although many of the cars do not class radio as standard equipment, they are built for the installation of the radio or have it put in at the factory and charge extra for it. As a result, there are many designs of interesting control and panel layouts. There is a strong tendency this year for instrument panel controls with the speaker behind a grille that extends on either side of the controls. Buick, Cadillac, Dodge, Graham, Hudson and Hupmobile have panels of this type. Many harmonious effects are gained which add to the beauty of the car. Probably the most outstanding feature of the new type of control design is that, being mounted high on the dash, ease of control while driving is assured, and a clear vision of the dial or drum is had at all times without the necessity of leaning forward or looking down and being forced to take the eyes from the road.

Price ranges this year are from \$28.50 up. Most of the prices include sets installed with antenna. Averages this year are about \$63.00 as against \$55.00 of last year because of rising costs of labor and material. Custom built installations plus added advantages of beauty and ease of control should more than off-set the increase in price range. Large opportunity is still at hand for independent radio dealers to make any installations in those cars which are not sold with radio. Since the custom built sets are rather high in price, there is a great opportunity for the independent radio dealer to sell the auto owner a smaller or cheaper set than that provided by the manufacturer of the car. And of course custom controls for every car can be furnished by the local radio jobber.



Packard Lektro-Shaver, designed in lava by Progress Corp., sells at \$16.50



Filming the major moments—the Univex Cine "8" camera priced at \$9.95.



Naturally linked to Xmas, new model flashlights ranging from \$1.15 up.

TO RING THE REGISTER

Extra lines with a lively Christmas appeal

* ORDERED in dozens are a series of trim items to stir Christmas selling for radio men.

These extra, smaller numbers glisten effectively against radio displays and add a de luxe note which means traffic. Shoppers who believe to start with that gifts should be limited to fewer dollars than may be found among radio prices are introduced to an elegant array of new models.

Smartly stocked with an attractive selection of supplementary lines, the radio dealer widens his acquaintance into all income groups, all ages, and all styles of gift-giving.

The added variety in merchandise simplifies the matter of holiday display and provides a new note of color for the radio store. Much of the merchandise is specially packaged as gifts and automatically supplies the dealer with a Santa Claus trim.

A batch of fast-selling merchandise also gives the dealer a chance to combine radio with other lower-priced jobs. He has a perfect chance to promote specials and to ring up important sales from customers whose gift problems are multiple.

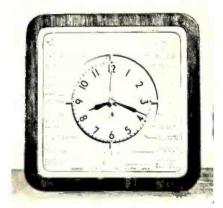
Electric razors come in colors, including jade, ivory, blue, red, lava, lapis, black, some with embossed finishes. Packed in gift boxes, they are sold mostly on time and fit neatly into radio's credit procedure.

Cameras and projectors have the special appeal of making "Christmas Last Forever," because pictures form a unique record of family affairs.

Flashlights have the advantages of low prices, recent improvements in function and design.

"World time" clocks have been specially designed for radio sets, and boost popular interest in short wave.

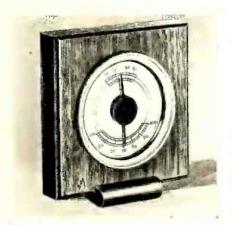
Typewriters, electric heaters, toasters and dial thermometers, each with a special brand of Christmas appeal, complete the list.



"Globetrotter" by Telechron, gives time at 30 foreign spots, for \$7.50.



Portable typewriter with sealed action-an Underwood priced at \$64.50.



"Humidiguide" by Taylor Instrument Co. Dial thermometer in walnut, an even \$10. ity Tray set, from McGraw Elec. \$23.50



A 1938 De Luxe Toastmaster Hospital-



Dozens of uses are named for Arvin's new electric heater listing at \$9.95.



Photo courtesy Western Union

TELEGRAMS TO DEALERS

Factory sales executives flash messages to retailers

* KEYNOTE ideas from the experts at radio headquarters are today being watched intently by the gentlemen on the shop floors.

There are a great many dramatic angles to the radio market right now, as the new models approach their holiday plugs. Herewith these angles are called by name.

For Radio Today, the top-notch executives were invited to wire radio dealers generally, via these columns. They have been asked to convey their most important advice—the biggest things to remember in radio selling at the moment.

They were limited to fifteen words each:

Keep selling

ENERGY, DETERMINATION AND THOROUGHNESS IMPORTANT IN DEALER ATTACK. PUBLIC WILL BUY IF DEALERS KEEP SELLING.

John F. Ditzell, Stewart-Warner Corp.

Spirit OK

STORMS, DEPRESSIONS, STOCK MARKET CRASHES HAVE NEVER DAMPENED AMERICA'S CHRISTMAS SPIRIT. SELL RADIO FOR CHRISTMAS.

Harry Alter, General Household Utilities Co.

Automatics

FEEL DEALERS OBTAIN BEST CHRISTMAS SALES THROUGH CONCENTRATION AUTO-MATIC MODELS. MAKE CONSUMERS DISSATISFIED MANUAL TUNING,

Howard Briggs, Vice-president, Howard Radio Co.

All-over demo

CONSUMERS AGAIN DEMANDING BADIO VALUES. GET BUSINESS BY DEMONSTRATING VALUE FRONT, BACK. INSIDE AND OUT.
W. Paul Jones,
Fairbanks, Morse & Co.

indunis, morse a (

DEALERS FIND REAL PROFIT IN HANDLING ONLY FEW PROTECTED LINES. QUALITY PHONOGRAPHS AND COMBINATIONS ESSEN-TIAL.

Profit

Arthur C. Ansley, President, Ansley Radio Corp.

Easy sales

CLARION ELECTRIC AUTOMATIC TUNING THAT IS INSTANTANEOUS, PRECISE AND TROUBLE-PROOF SPELLS EASY SALES—PERMANENT PROFITS,

R. B. Lacey, Clarion Corp.

Table models

SMALL ELECTRIC TUNING TABLE MODEL RECEIVERS PROPERLY PRICED WILL BE THE SALES LEADERS OF THIS SEASON.

W. L. Hasemeier, Wilcox-Gay Corp.

Moderne

DEALERS TAKE HEED. SELLING RADIOS WITHOUT ELECTRIC TUNING IS LIKE SELLING AUTOMOBILES WITHOUT SELF-STARTERS.

H. H. Silliman, Director of Sales, Detrola Corp.

Peak

THIS CHRISTMAS WILL, IN MY OPINION, PROVE MOST PROFITABLE PEAK OF ENTIRE YEAR FOR PHILCO DEALERS.

Larry E. Gubb, President,

Philco Radio & Television Corp.

Gifts

THERE'S A TRAV-LER GIFT MODEL SUIT-ABLE FOR EVERYBODY. TELL YOUR CUS-TOMERS TO "TRAVEL WITH TRAV-LER." A. Maybrun,

Trav-ler Radio & Television Corp.,

Price tags

THE RADIO MARKET FROM NOW ON IS A "PRICE" MARKET. KADETTE LEADS IN THIS FIELD.

W. Keene Jackson, International Radio Corp.

Start work

HAVE YOU GOT WHAT IT TAKES STOP SENTINEL HAS STOP QUIT WORBYING START WORKING.

George Russell, Sentinel Radio Corp.

Best bet

ADMIRAL TILT-TUNING PLUS FOOL-PROOF ELECTRIC TOUCH-O-MATIC TUNING YOUR BEST BET TO ATTRACT CHRISTMAS RADIO BUSINESS.

J. H. Clippinger, Continental Radio & Television Corp.

Plus volume

FADA DEALERS' NOVEMBER-DECEMBER PROGRAM WILL ZOOM UPWARD WITH PLUS SALES. FLASH-O-MATIC TUNING IS THE BEASON.

J. M. Marks, Fada Radio & Electric Co.

THIS CHRISTMAS, SELL . . . "A Radio for Each Member of the Family"

For Mother

—a boudoir set

For Father

—a console

For Big Brother

—an auto set

For high-school
Daughter
—a "color" radio

For the Little Folks
—a nursery radio

For Grandpa

—an all-wave job

For Grandmother

—a record-player

For the Whole Family
—a phonograph-radio
combination

RADIO RECEPTION IN YOUR VICINITY

Suggestions on station tuning, to be passed along to customers

* MANY radio dealers and servicemen have questions to ask about reception conditions in their own communities. There are many curious reception "freaks" experienced by listeners as well as dealers and servicemen, and local radio men are called upon to explain these strange caprices in radio reception.

Unsatisfactory reception from a desired broadcasting stations is almost invariably blamed upon the receiving set itself by uninformed listeners. The characteristics of radio transmission are but little understood by the average listener. Frequently resentment is expressed toward a radio dealer, who is blamed for selling an inferior set, when upon investigation, the cause of the difficulty is found to be fading or interference.

Coast-to-coast survey

RADIO TODAY has, therefore, arranged with Edgar Felix, consultant on radio reception conditions for advertisers, and publisher of Radio Coverage Reports, to answer questions from our readers. With his measuring cars and crews, Mr. Felix has made field-intensity measurements in all sections of the United States and in all important cities from coast to coast.

It is believed that dealers may have questions to which they seek answers as explanations to their customers. The purpose of the following is to aid dealers in handling questions dealing with the broadcasting service available in their areas. Your questions are invited, and will be answered in later issues.

The following are actual questions which have been put to Mr. Felix's field crews making measurements. They indicate the type of information which the dealer must have in order to meet the situations which may arise with purchasers of receiving sets.

Central New York

"The president of a manufacturing concern located in Amsterdam, N.-Y., purchased a radio receiver in order to hear the program which his company is broadcasting through the Columbia Broadcasting System. Reception of WABC is quite unsatisfactory because of rapid fading at this distance. CBS programs are available on average receivers here through numerous stations, but what station would you rec-

ommend for greatest reliability and all-around satisfaction to meet this particular situation?" J. K., Amsterdam, N. Y.

Answer: While some regional stations, radiating CBS programs, may be entirely satisfactory near sunset and sunrise hours, you should invariably suggest clear channel stations to the attention of a listener who wishes to listen to a particular network program because no regional station's service is usable at all hours at Amsterdam, WABC and WCAU are both at the intermediate distances which frequently make their fading rather objectionable. High power stations 400 miles or more distant, though weaker, are more likely to be stable and free of distortion, but the direction from which the steadiest signals come varies from night to night according to atmospheric conditions. The simplest recommendation is to try WBT and WBBM; if both of these should at any time prove unsatisfactory, WJR and WHAS; and finally. KMOX and WCCO.

Maine

"I get excellent service from WOR during the day, but it is rarely good at night. Sometimes there is a whistle on it; at other times it is clear for a while and then it just goes to pieces." A. D., Ogunquit, Me.

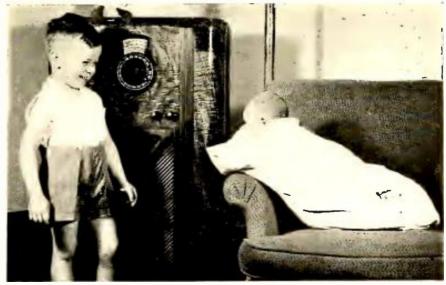
Answer: Excellent reception of WOR in Ogunquit, Me., indicates that you have a sensitive receiver. The whistle occurs when WLW

reaches high peaks as WOR fades out. The automatic volume control increases the sensitivity of the receiver during WOR lows, bringing in a very high whistle from WLW. When WOR reaches normal levels, the automatic volume control reduces the sensitivity of the receiver, with the result that WLW's whistle disappears. If the receiver is well lined up, there is no satisfactory cure because WOR tends to fade more than moderately at the distance involved. A hundred miles further from the transmitter, the "fadeouts" are not so complete and less trouble from WLW is generally encountered.

Illinois

"Because we have almost no primary radio service here, we find sensitivity an essential qualification for a satisfactory receiver. Can you advise me which of the numerous stations audible here are actually the weakest during the day?" F. B. K., Effingham, III.

Answer: You should be able to tune in at least 25 stations on an average receiver at any time during the day at Effingham. WOWO and WHKC are both consistent, yet adequately weak for your sensitivity tests. Near sunset and sunrise, however, they are both likely to rise to substantial levels for brief periods and cannot, therefore, be used as a test for receiver sensitivity at such hours.



This picture of Danny Baumann and his new brother, mailed with 2,000 letters to Chicago customers of Roy Baumann, brought tangible sales results. See page 38.

MORE SNAP IN RADIO SELLING

Dedicated to the idea that peppy promotion will always pay off

DENVER STORE RENTS RADIOS DURING FOOTBALL SEASON

* That the football season and the "World's Series" offer the radio dealer an excellent opportunity for profitable rental of machines has been proved in an interesting way by the Le Moine Music Co., Denver. During the fall months, this company rents on an average of 60 or 70 machines per month for use during big games.

The big volume of this business is done with inmates of hospitals, hotel residents and office tenants who do not have radio facilities and who during most of the year are not interested in them. Cost of getting the business has been practically nil—a poster in the window announcing the rental service has been the only advertising used.

Only table sets taken in on trades are rented. A flat reutal fee of three dollars per mouth is charged for any

machine the customer may choose.

The customer may, up to a specified time, apply the rental he has paid on purchase of this set or another one. Quite a number of extra sales are made in this way.

Losses on rented machines have been kept to a minimum through use of an iron-clad conditional-sales contract. The customer is required to sign exactly the same agreement as if he were buying the machine on time. However, in large letters across the face of a contract used for this purpose is written the word "Rental."

SOUND BOOTH IS A GOOD SALESMAN

* When you are limited for space and cannot afford specially built-in rooms to demonstrate microphones and amplifying equipment, why not create a suitable substitute which produces the same thing at small cost?

That was the theory of Gene J. Rothman, manager of the Allentown (Pa.) Radio & Electric Service Company, Inc. So he built a special microphone testing booth right in the store to demonstrate amplifiers on the show room floor.

"We had a small store room, all on one floor, with no additional available space," explained Mr. Rothman, "and we did not have the room to put up a complete amplifying display. At the same time it was naturally quite impossible to demonstrate without any amount of feed-back.

"So we built this booth of wood framing, covered it with double celotex, provided air space between, and padded it. The glass is also of double thickness, with air space. This booth is very nearly sound-proof. On one side is the amplifier rack and our speaker rack is on the other side. With this set up we can hook up any one of the series of six speakers.

"It is an ideal set-up for the small store, where the question of finding room is a problem. It provides a special set up with all hook-ups complete, ready to demonstrate—any volume—a sound proof booth which does not give any feed-back. With a sound proof booth you can go in there and demonstrate any microphone at any time.... crystal, carbon, velocity,

ELMER HAYSEED PERFORMS

FOR RADIO

★ People in Mamaroneck, N. Y., recently noticed a man in overalls, straw hat and boots parading the streets earrying an old carpet bag bearing the words, "Yep, I'm on my way to Mosier's and \$60,000 in free prizes."

Dealer Russell K. Mosier was using a character actor, "Elmer Hayseed" to attract prospects to his store. Elmer finally arrived at the shop, sat in a chair on the sidewalk and demonstrated RCA's electric tuning with a parasol. Street traffic was blocked, the while Elmer cracked wise.

Trimmings for the stunt were store and window decorations of pumpkins, cornstalks and autumn leaves. The affair lasted two days, cost Mr. Mosier only \$15.25, netted dozens of prospect names.

"WE GOT MORE PROSPECTS FOR BETTER-GRADE MERCHANDISE"



★ Herewith, the completely remodeled premises of Kirk's Radio & Electric Co., Mattoon, Ill.

"Being able to display more merchandise and displaying it properly," reports Clyde Kirk, "We noticed a great increase in our business and certainly more traffic."

The front, in black glass with aluminum trim, cost \$675. The red and green modernistic neon sign, de-

signed by Mr. Kirk himself, cost \$350. Inside, the color scheme is bone-white and red. Indirect lighting is used, with 3-position switches. No shadows. On one side is a 25 ft. display, lighted by four 100-watt lamps with special reflectors.

Cashier counters have black tops, chromium trims and posts. Executive offices have plate glass sidings with top corners cut in modernistic pattern.

HOWARD SCORES Gnother FIRST!



Write or Wire for Details

MODEL 211 PUSH-BUTTON ADAPTER

Automatic tuning has captured the imagination of the radio buying public as nothing has since the dynamic speaker. Everyone wants it but hundreds of thousands will do without it rather than sacrifice their present radio. With this new Howard development you can give them automatic pushbutton tuning for the radio they now have at a small fraction of what it would cost them to purchase a similar automatic radio. Suitable for use with any receiver regardless of make, model or circuit. Provides instant push-button tuning for any eight stations on the broadcast band which can also include your favorite police station. Connections so simple anyone can accomplish it without the use of tools or knowledge of radio. Does not interfere in any way with the receiver's present operation. Station set up may be changed at will by even a layman. Self-contained power supply. will operate any reasonable distance from receiver. Attractive cabinet only 10 in. long, 53/4 in. high and 5 in. deep. A low list price for volume sales, with generous discounts for Distributors and Dealers, whose interests we fully protect.

*Howard engineers are always busy on new developments that help you sell more merchandise. Watch Howard ads regularly for outstanding new ideas.



AUTOMATIC
PUSH-BUTTON
TUNING for
Any RADIO

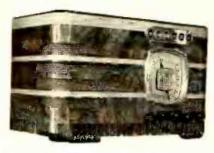


MODEL 240 ALL-AUTOMATIC RADIO

And here's more front page news for enterprising Dealers and Distributors! An Automatic Radio that retails for less than forty dollars. Eliminates dialing completely. All tuning is done by means of eight push-buttons instantly adjustable for any eight stations on the broadcast band including your favorite police station. Station selector quickly and easily changed by anyone without removing chassis from cabinet. Six tubes. Automatic volume control. Dynamic Speaker. Tone Control. Copper plated chassis. Handsome cabinet designed for either top-tuner or horizontal positions. Don't delay your investigation of this and the seventeen other sensational new Howard models for 1938. We have what it takes to get business when and where business is hard to get.

NEW THINGS FROM THE MANUFACTURERS

Fada automatic tuning table models



★ Two models offered—5 and 6 tubes. Flash-o-matic tuning. Features reduction drive tuning, A.V.C. beam power output, diode detection, electrostatic shields, 456 KC I.F., I.F. wave trap and rubber mounted tuning condensers. Model 358 for AC operation, model 368 for AC-DC. Both list at \$49.95. Fada Radio & Electric Co., 30-20 Thomson Ave., Long Island City, N. Y.—RADIO TODAY—see also advt. inside front cover.

Lafayette sound system



★ 15-20 watt sound system with gain of 140 DB. Amplifier has 2 low-gain and 1 high-gain channels. Supplies 16 watts of field excitation. Complete co-ordinated system includes velocity mike, two 12-inch speakers with flare baffles, shielded plugs, and floor stand. Model 101A amplifier illustrated. Wholesale Radio Service Co., 100 Sixth Ave., New York, N. Y.—Radio Today—see also advt. p. 61.

DeWald receivers



★ Line of 1938 sets made up of 25 models covering the entire popular price ranges starting at \$16.75. Model 1,200 illustrated has 12 tubes—tunes 550-1,700, 2,100-7,500 KC. in 2 bands. Power output of 2 watts. Hand-rubbed walnut cabinet. Pierce Airo, Inc., 510 Sixth Ave., New York, N. Y.—Radio Today.

Burgess "B" pack

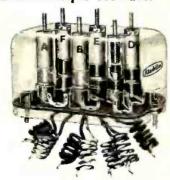
* 135-volt multiple "B" battery pack designed to replace three No. 10308 batteries. Constructed in one flat unit with three standard type "B" battery plugs mounted on side of battery. Dimensions 4" x 12" x 13¾". Burgess Battery Co., 111 West Monroe St., Chicago, Ill.—RADIO TODAY.

Super-pro console



★ Super-pro communications receiver housed in walnut console cabinet for use in the living room or other places where the table model is not suitable. Cabinet with burl, matched and oriental walnut. Acoustical design using bass reflex sound chamber for natural tone—eliminates boom and extends bass reproduction. Hammarlund Mfg. Co., 424 W. 33rd St., New York, N. Y.—Raddo Today.

Aladdin multiple oscillator



★ Multiple oscillator, aligned with Polyiron cores and contained in a compact housing. For use in preselected tuning systems. Use of Polyiron adjusting method obviates the drift as had in compression type trimmers. Ranges are from 1520 to 540 KC inclusive, covered by 6 coils. Aladdin Radio Industries, Inc., 466 West Superior St., Chicago, Ill.—Radio Today.

Bel-monitor station selector

* Mechanically operated station selector using no motors. Comprised of a bank of keys which are linked to an equal number of adjustable centering



cams mounted on tuning condenser shaft. Travels through shortest arc of travel to station desired—no special sequence of stations or operation required. Any key can be adjusted without affecting others. Eight-station model on Belmont 860 and 1175 consoles. 6-station type on table model 582. Belmont Radio Corp., 1257 Fullerton Ave., Chicago, Ill.—RADIO TODAY.

6-volt & AC superhet



★ Receiver designed for use in farm areas where electrification is under way. Set will operate on 6-volts or 110 AC. Five-tube dual-wave chassis tuning 540-1720, 5800-18,000 KC. PM dynamic speaker—pentode output system. Illuminated dial. Walnut cabinet 10¼ x 16½ x 8½ inches. Model 85BT6—list \$44.95. RCA Mfg. Co., Cooper St., Camden, N. J.—RADIO TODAY—see also advt. p. 41-44.

Armchair combination

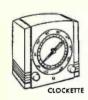


★ Phonograph radio combination is chairside design. Set has 8 tubes tuning 540-18,000 kc. 10-inch dynamic speaker. Cathode ray tuning indicator—6-inch dial. Tone and volume controls on radio and phono. Shelf-space in cabinet for records. Arvin model 848CS. Noblitt-Sparks Industries, Columbus, Ind.—Radio Today.

"A STITCH IN TIME . . ."—I PERSON-ALLY RECOMMEND THAT YOU ASSURE YOUR SUPPLY OF

KADETTE RADIO

The Christmas Gift of the Year!





DYNAMI





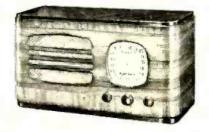
DON'T DELAY ORDERING PLASTICS

First come—first served, must necessarily be the rule in filling orders for Christmas stocks of Kadette Jewels, Travel Sets, Classics and Clockettes. Top speed production is enabling us to catch up on jobber's requirements. And we hope to fill all demands for the holiday trade.

Dealers' orders received NOW will be scheduled for early delivery. Furthermore, dealers placing orders now will be sure of receiving the free cutout counter and window displays. The supply of these is definitely limited. See your jobber—write or wire—TODAY.

AND NOW! THE LEADER OF THE INDUSTRY

Dealers advertising \$19.95
10-tube leader for...19.95
acclaim it the greatest producer of store traffic radio has ever seen!
Increased production now permits filling additional orders for this sensational K-1019. ACT NOW!



INTERNATIONAL RADIO CORPORATION, 559 Williams Street, Ann Arbor, Michigan



NEW THINGS

5-watt amplifier



★ Low-cost amplifier for covering audiences up to 1000 persons. Uses metal tubes with pentode output amplifier. Flat within 2 DB from 90 to 15,000 KC. High and low impedance inputs. Outputs of 1, 1½, 2, 4, 8 ohms. Gain of 110 DB. Model 10B5—list \$41. Webster Electric Co., Racine, Wis.—Radio Today.

Supreme signal generator



★ Test oscillator and frequency modulator with spot-light dial. Hairline indicating shadow lights the individual frequency range and eliminates parallax .38:1 vernier ratio. Provides unmodulated RF, 400 cycle modulated RF, 24 KC band frequency modulated RF, fixed 400 cycle audio, variable 0-10,000 AF. Model 581. Supreme Instruments Corp., Greenwood, Miss.—Radio Today.

Emerson AC console



★ 6-tube AC tuning 540 to 1730 KC and 5.5 to 18 mc. Has AVC, tone control, Emerson foreign tuning principle, shock-mounted tuning condensers, 5 watts output, 10-inch dynamic speaker and acoustically constructed console cabinet. Uses glass tubes. Console is of center-matched butt walnut with striped walnut flanking. Emerson Radio & Phonograph Corp., 111 8th Ave., New York, N. Y.—Radio To-

Trailer radio

* Chassis and speaker for custom installations in trailers. Operates on 110 AC or 6 volts DC. Tunes 545-1750, 5500-18,200 KC. 5-tube superhet circuit. Power output of .84 watts. Consumes less than 2 amps. on 6 volts. Compactly constructed — 6-inch PM speaker. Model 5J196. Zenith Radio Corp., 6001 Dickens Ave., Chicago, Ill. —RADIO TODAY.

30-watt amplifier



★ Compact rack type amplifier for all sound systems. Has exciter lamp unit for motion picture projectors and field supply for speaker units. Power output of 30 watts, Model WR. Herman A. DeVry, Inc., 1111 Armitage Ave., Chicago, Ill.—Radio Today.

RCA-Victor farm radio



* 5-tube 3-band superhet for 2 or 6-volt operation. Tunes 530-22,000 KC. Power output 2.2 watts, Magnetite tuned I.F. transformers and oscillator coils. Full-vision dial with 20:1 vernier and save-the-battery pilot light. PM loudspeaker. 2-point high-frequency tone control. Plug-in connector for B battery. Uses power pack unit for 6-volt operation. Model 85BK. RCA Mfg. Co., Front & Cooper Sts., Camden, N. J.—Radio Today—see also advt. p. 41-40.

Hickok oscillograph

* 3 inch oscillograph to be used with any frequency modulator or frequency modulator oscillator. Tube is mounted at an angle putting screen at eye level. Has removable screen and adjustable cathode ray tube mounting. Also focusing, intensity and positioning controls. Two sweep cir-



cuits with flexible, wide range, linear variable from 3 to 150,000 and 60 cycle sinusoidal. Automatic synchronization. Locking sweep circult eliminates image wandering. Amplifiers have flat response curve up into R.F. One meg. horizontal and vertical input. Hickok Electrical Instrument Co., 10514 Dupont Ave., Cleveland, Ohio—Radio Today—see also advt. p. 76.

General Electric table set



★ Dual-wave table type superhet with vertical straight-line dial. Tunes 550-1800, 2200-7000 KC in 2 bands. Tone control, automatic volume control, dynamic speaker. Attractive cabinet with contrasting horizontal bars. General Electric Co., 1285 Boston Ave., Bridgeport, Conn.—Radio Today—see also advt. inside rear cover.

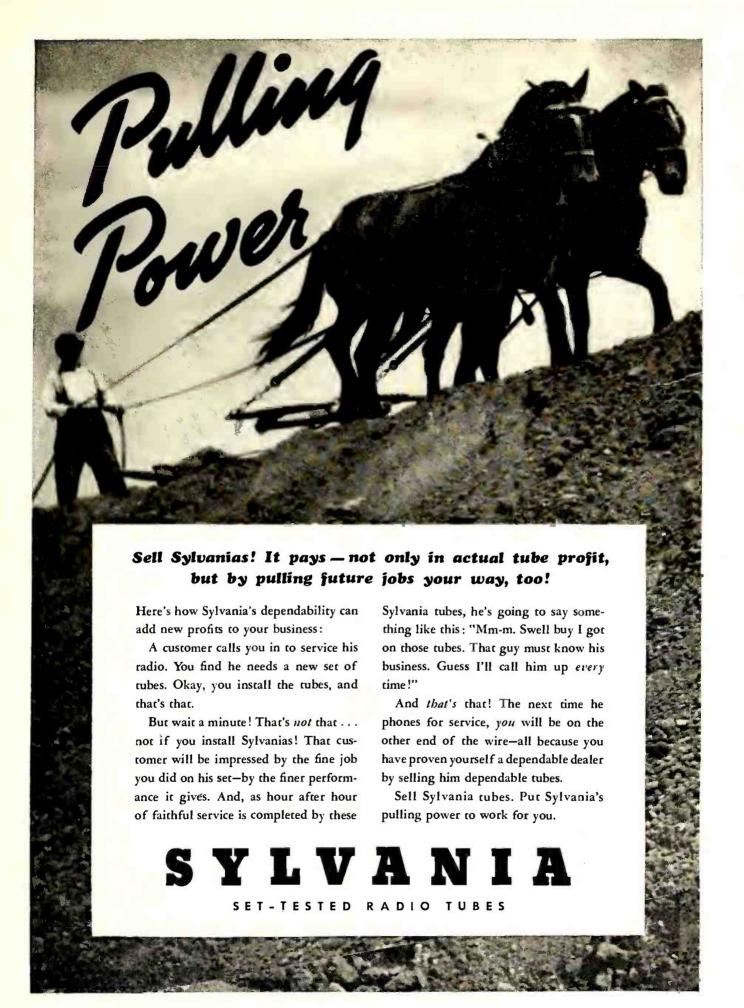
Test-o-lite

★ Neon type test indicator to show presence of voltages from 90 to 500, AC or DC. Unit built with pocket clip to prevent loss. L. S. Brach Mfg. Corp., 55 Dickerson St., Newark, N. J. —RADIO TODAY.

Lightweight headphones



* Commercial headset featuring extra durability and substantially unlform frequency characteristics throughout voice ranges. Absolute sensitivity of 600-ohm impedance unit of .1 microvolt across terminals for a just audible signal. Will handle input up to 1 watt without rattling. Telephone type plug. Trimm Radio Mfg. Co., 1770 W. Berteau St., Chicago, Ill.—RADIO TODAY.



NEW THINGS

Meissner I.F. transformers



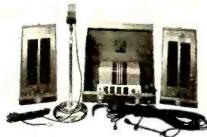
★ Standard I.F. double-tuned transformers known as the wide range line. Feature is the wide range of frequencies that the transformers can be tuned to. One can tune to any I.F. frequency required from 121 to 650 KC without skip. Simplifies replacement problems. Available in either air core or iron core; 1500 and 3000 KC units are available for amateurs. Meissner Mfg. Co., Mt. Carmel, Ill.—Radio Today.

Trav-ler receiver



★ 6-tube AC-DC table superhet with travel-matic type of automatic tuning. Five-inch electrodynamic speaker, full AVC, tone control. Output of 1 watt. Model 627. Trav-Ler Radio & Television Corp., 1036 W. Van Buren St., Chicago, Ill.—Radio Today.

RCA sound systems



* 1938 line of amplifiers and sound systems includes equipment for all applications of sound reinforcement. Outputs range from six to more than 50 watts. Model PG-112 illustrated is a 12-watt portable system operating from AC or a 6-volt dynamotor. Junior velocity mike, 2 heavy-duty PM speakers with baffles, interconnecting cables and carrying case. List \$199.50 complete. RCA Mfg. Co., Front St., Camden, N. J.—RADIO TODAY—see also advt. p. 41.

Midget volume controls

★ Composition element type volume and tone controls. 300-degree effective rotation. Permanent resistance values with quiet contact arm. Power dissipation of 1 watt. Linear and tapered resistance values from 1000 ohms to 5 megohms. Standard tap positions available. Available to manufacturing trade. Clarostat Mfg. Co., 285 N. 6th St., Brooklyn, N. Y.—Radio Today—see also advt. p. 76.

Amperite acoustic compensator



★ Velocity microphone with acoustic compensator permits adjusting response of P.A. system to the requirements of any particular room or condition. Pitch is raised or lowered by pushing up or down the compensator. Acoustic baffle is used to absorb some of the lower frequencies. Amperite Co., 561 Broadway, New York, N. Y.—Radio Today—see also advt. p. 1.

Sentinel arm chair radios



★ 5-tube, 2-band model band coverage 540 to 1720 KC and 2300 to 6300 KC. A.V.C., full range tone control and 8-inch dynamic speaker included. Rubber mounted chassis a special feature. Other arm chair models are 72 AAE 6-tube 2-band set and 80 BA-A 5-tube 2-volt single band, 90 BA-A 5-tube, 2-volt 2-band set and 73 BA-A 5-tube 6-volt models. Same cabinet design in all models. All battery operated sets have 8-lnch P.M. Speakers. Sentinel Radio Corp., 2222 Diversey Pkwy., Chicago, Ill.—Radio Today.

Ohmite precision resistors



* Riteohm "71," a vitreous enameled 1 per cent accurate, precision resistor of 1 watt rating for use as voltmeter multipliers. Riteohms up to 50,000 ohms are 1¾" x ¾" and 7¾16" x 2" up to 100,000 ohms. Resistors are single layer wound with special alloy wire on a ceramic tube. Resistor is covered with ohmite vitreous enamel. Low inductance and distributed capacity. Ohmite Mfg. Co., 4835 W. Flournoy St., Chicago, Ill.—Radio Todax.

6-voit 110 AC farm set



* All-wave, 6-tube receiver for use on 6-volts DC or 110 AC. Tunes 530-22,000 KC. Large mirro-dial, edge illuminated. Power output 2½ watts on DC, 3 watts on AC. 6-inch PM speaker. AVC, continuously variable tone control. Octal glass type tubes. Model B-667A. Crosley Radio Corp., 1329 Arlington St., Cinclnnati, Ohio—Radio Today—see also advt. p. 6.

12-volt vibrator supply

★ High-voltage DC power pack for use with 12-volt battery. Delivers 300 volts at 100 mils. Voltages of 275, 250, 225 available at turn of selector switch. Synchronus self-rectifying vibrator. Model VP-G556. P. R. Mallory & Co., Indianapolis, Ind.—RADIO TODAY.

Howard automatic tuning



★ Six tube push button automatic tuning table model tunes 8 stations—one in police band. Uses copper plated chassis mounted in two-position cabinet, which may be used as top-tuner or horizontal. Howard Radio Co., 1731 Belmont Ave., Chicago, Ill.—Radio Today—see also advt. p. 23.

DO YOU KNOW THIS ONE?

How does the "Eveready" "Air Cell" "A" Battery Breathe?



A cross section of the battery that breathes the same air as we do

ALL PRIMARY BATTERIES must have oxygen. In dry batteries this is supplied by a chemical placed in the battery when it is made. The "Eveready" "Air Cell" Battery takes its oxygen from the air, where the supply is free and unlimited.

There are five and one-quarter pounds of zinc in this battery. Being acted upon on all sides by the electrolyte, the consumption of the zinc plates is practically complete. Therefore the 600 ampere hour capacity.

The slurry cake is the rejuvenator of the electrolyte. It separates the waste product from the electrolyte and the refreshened electrolyte returns for further action on the zinc.

Long life, practically constant voltage and the lowest cost per ampere hour of any primary battery combine to make the "Eveready" "Air Cell" "A" Battery the ideal source of filament current supply for 2-volt "Air Cell" receivers.

The words "Eveready" and "Air Cell" are trade-marks of National Carbon Co.

How can you make the biggest profits out of the "Air Cell" battery?



The "Eveready" "Air Cell" Resistor widens your "Air Cell" battery market to include every two-volt receiver in your neighborhood.

Every true "Air Cell" receiver, no matter who makes it, is approved by National Carbon Company, Inc., and is ready to function on "Air Cell" "A" power without the addition of resistors.

All other 2-volt receivers may be quickly and easily adapted to the economical level power of the "Air Cell" battery by adding an "Eveready" fixed resistor of the proper value. Through this simple operation, the set owner is freed from tinkering with hand-operated resistors, from short-lived ballast tubes and from the excessive power-waste of dry "A" batteries, the nuisance and expense of storage batteries, chargers, etc.

Get a card of these "Eveready" "Air Cell" Resistors at once. Always keep them on hand. Note the five different resistances on each card so you need buy only one to take care of sets from 480 to 740 milliampere drain.

AND HOW CAN I FIND OUT:

How long will "B" batteries last? How long will dry "A" batteries last? How long will an "AIR CELL" "A" battery last? What brings "Sudden Death" to "B" batteries? How does a dry cell produce electricity? How to cut "A" power costs in half. How to increase tube life two to three times. What to do about "voltage wasters." What I should promise my customers?

FREE

JUST MAIL THE COUPON

NATIONAL CARBON COMPANY, INC.
P. O. Box No. 600, Grand Central Station, New York, N. Y.
Please send me free of charge the new book: "The ABC or
Radio Battery Life."

Name

Address

R.T.-5

NEW THINGS

Operadio portable unit



★ Model 108 portable public address system rated at 8 watts normal and 15 watts maximum. Amplifier is removed from case when being operated. Unit comes with velotron type microphone mounted on a stand. Mounting permits the microphone to be used either as a hand type microphone or as a banquet stand type. Built-in tone control permits frequency response to be varied to suit individual taste. Mounted in leatherette covered carrying case. Operadio Mfg. Co., St. Charles, Ill.—Radio Teday.

Readrite oscilloscope



★ A foundation oscilloscope with built-in 60 cycle sweep. For essential visual measurements of the amateur broadcast station. Also a foundation unit for those who wish to add external sweep and amplifiers for specific test purposes. Vertical and horizontal deflector plates. Controls for intensity focus and sweep amplitude. AC operated. Price net \$17.90 with tubes. Uses one inch tube. Readrite Meter Works, Bluffton, Ohio—Radio Today—see also advt. p. 64.

"Knight" intercommunication systems



* Interphone systems include compact two-way units, super-selective systems accommodating as many as ten

stations, master call systems for paging in large offices, factories, or institutions. Standard superselective system permits direct two-way private communication between any two stations. Features include full-range audio system, beam power amplifier, combination P.M. speaker-microphone, volume cotrol and noise filter circuit. Allied Radio Corp., 833 West Jackson Blvd., Chicago, Ill.—Radio Today.

Electro-Call interphones





★ Line of 2-way intercommunicating systems. Model 302 consists of master and outlying station. 300-5 handles communication with 5 outlying stations. No selector switch required—just the talk push-button corresponding to desired station is operated. Model 305 permits simultaneous communication between any pair of stations. Handle 4 to 6 master units. United Scientific Mfg. Labs., 510 Sixth Ave., New York, N. Y.—Radio Today—see also advt. p. 70.

Clough-Brengle signal generator

★ Model 110 signal generator has meter reading dial. Dial has unified calibrations, set one beneath the other for all five bands. Change of wave length is attained by turning band selector switch. Large window dial makes for easy reading. Clough-Brengle, 2815 West 19th St., Chicago, Ill.—RADIO TODAY.

Portable electric phonograph



★ AC-DC operated electric phonograph playing 10 or 12-inch records. Separate tone and volume and controls. Storage space for records in lid compartment. Pilot light indicator. Amplifier interchangeable with radio chassis. Portomatic Corp., 1013 Madison Ave., New York, N. Y.—Radio Today.

RCA Victor-phone

★ Master type interphone handling up to 5 remote stations. Operates on AC or DC. May be operated up to 1,000 feet apart. Remote units can talk with master unit. After contact is made one may both talk and listen without





turning or holding switch. Master unit has volume control, selector switch, and talk switch. Housed in walnut cabinet. Master—list \$39.95; remote units \$12.50 each. RCA Mfg. Co., Cooper St., Camden, N. J.—Radio Today.

Long wave converter for auto radios



★ Long wave converter for autoradios. Two metal tubes used, one provides r.f. amplification of long wave signals, other a signal which may be picked up by the receiver at 600-700 KC. Unit has band coverage of 130 to 430 KC. Designed for reception of government weather reports, ships, airplanes. Regular broadcast reception not affected when converter is not in use. A B C Radio Laboratories, 3334 N. New Jersey St., Indianapolis, Ind.—Radio Today.

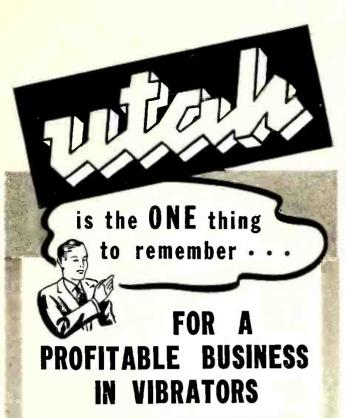
Insuline small-hardware



* Complete line of small-hardware assortments for electrical, radio, automotive shops and home craftsmen. Farts are supplied in indestructible flat metal boxes having hinged lids and individual compartments. Assortments include screw and nut assortment, all purpose radio hardware, insulated washers and grommets, rivets, lugs, etc. Insuline Corporation of America, 25 Park Place, New York—Radio Today.

Atlas marine type horn

* Exponential horn and unit for marine use. Overall depth 12 inches, voice coil impedance 15 ohms, perma-



Original Equipment in More Than a Million Sets



HERE'S the vibrator that has EARNED customer preference by its ability to "TAKE IT." UTAH vibrators are TOUGH. Impartial tests PROVE it. That's why manufacturers have chosen it for original equipment in more than a million sets. That's why it is the preferred vibrator for replacement service. It's the easiest vibrator for you to sell-and the most profitable, too. Exclusive UTAH design and construction mean no costly "comebacks" for you. UTAH vibrators work better, last longer but cost no more. Just a few models service any radio. When ordering vibrators, remember the name UTAH. It's the profitable thing to do.

UTAH RADIO PRODUCTS CO.

CHICAGO, U.S.A.

TORONTO BUENOS AIRES
ONTARIO, CANADA (UCOA RADIO PRODUCTS CO.)

"16 YEARS OF LEADERSHIP"

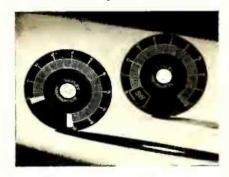


NEW THINGS



nent field magnet. Has frequency response 300 to 6000 cycles, 100 per cent weatherproof. Has high directional characteristics and coverage angle of 30 degrees. Handles up to 20 watts input and has non-resonant aluminum horn. Atas Sound Corp., 1451 39th St., Brooklyn, N. Y.—Radio Today.

Matched dial plates



★ Dial plates matched to Yaxely volume control units. Active rotation part of control marked in 100 degrees. Switch types marked with switch-shorting position. Plates 2¼-inch diameter—satin black background and aluminum markings. P. R. Mallory & Co., Inc., Indianapolis, Ind.—RADIO TODAY.

Patch kit

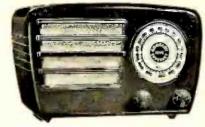


★ Radio-cabinet refrigerator patch kit for filling in deep nicks and scratches. Matches wood, plastics, or white refrigerators. Kit comes in leatherette box with six shellac sticks in various shades and necessary tools. List \$2.25. General Cement Mfg. Co., Rockford, Ill.—Radio Today.

Panel mounting kits for auto radios

★ Panel Mounting Kits for auto radios in 1938 cars. Kits include notable features such as specially illuminated dials, colored knobs and attractively designed escutcheons, to harmoize with automobile panel; interchangeable controls and shafts, permitting use of same controls for all cars, including reinstallation jobs. Kits include airplane and drum-type dials. Crowe Name Plate & Mfg. Co., 1749 Grace St., Chicago—Radio Today ...

Crosley Fivette



★ Five tube AC-DC superhet tuning 535-1,725 KC. Gold type mirro-dial. Self-contained antenna—requires no ground. Has automatic volume control. 5 metal tubes—3-inch speaker. Black or brown bakelite case. DeLuxe model in old Ivory. Size 5¼ x 8½ x 45% inches. Crosley Radio Corp., 1329 Arlington St., Cincinnati, Ohio—Radio Today—see also advt. p. 6.

30-watt sound system



* High-fidelity 30-watt portable sound system in carrying case. Outfit made up of 12-inch speaker with 50-foot cable and connectors, diaphragm crystal mike with 25-foot cable, adjustable floor stand. Amplifier has 4 inputs and mixers for 3. Separate phono volume control. Variable tone control. Output impedances of 500, 250, 125 ohms. Electro-Acoustic Products Corp., Fort Wayne, Ind.—Radio Today.

Transmitter type microphone

* Microphone for police, airways, and other small transmitting stations. Designed similar to a telephone in appearance. Press to talk switch mounted at top, in base, or side of stand. Furnished with single button carbon unit, crystal unit, or dynamic unit. Universal Microphone Co., Inglewood, Calif.—Radio Today—see also advt. p. 72.

Tube tester—multi-meter

★ Tube checker testing all types of tubes—uses straight-line switches for setting up test circuit. Large meter with good-bad scale, Multi-meter section has AC-DC ranges 0/10/100/350/1000 volts. Current ranges 0/10/100/10M. Ohmmeter measuring 0/500/100M/10megs. Self-contained power pack. Royal Confidence analyzer—net \$49.50. Apparatus Design Co., Randolph &



Elizabeth Sts., Chicago, Ill.—RADIO TODAY.

Communications microphone

★ High-level type of crystal mike for ham and voice communications. Level minus 55 DB. Directional characteristic cuts down noise from rear. Shock-proof interior. List (without stand) \$19.50. Turner Co., Cedar Rapids, Iowa—Radio Today.

Automatic record changer



* Record changing mechanism for 10 or 12-inch records. Has crystal type pick up with offset to reduce tracking error. Adjustable needle pressure—normally 3 oz. Needle loaded from top of head. Frequency response from 4b to 7000 cycles—40,000 ohm impedance works directly into grid of tube. Requires space to left of motor board for record well. Model 9820—list \$99.50. RCA Mfg. Co., Cooper & Front Sts., Camden, N. J.—RADIO TODAY.

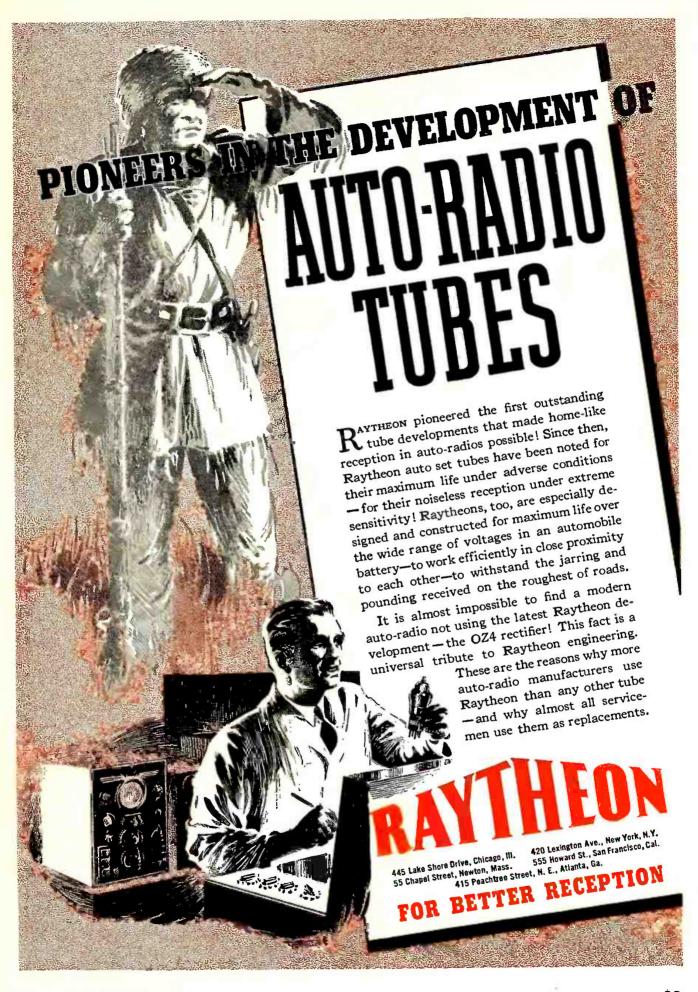
Compact paper condenser

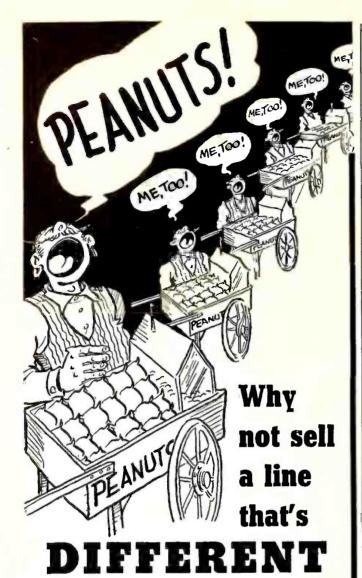
★ Oil-processed paper condensers of extremely compact design. Available in 600 and 1000-volt ranges and .05 to 4 mfd capacitances. Housed in small rust-proof metal containers. 1 mike 1000-volt unit measures 2x1%x1% inches. Tobe surgeproof filtermites. Tobe Deutschmann Corp., Canton, Mass.—Radio Today.

Grebe Prestomatic sets



★ 7 tube AC-DC superhet, tuning 16-53, 172-555 meters in 2 bands. Prestomatic push-button tuning selects 6 stations. 8-inch dynamic speaker. Walnut cabinet. Model 782L. Grebe Mfg. Co., Inc., 115 Fourth Ave., New York, N. Y.—Radio Today—see also advt. p. 66.





That's STANCOR: the COMPLETE, COMPACT, COMPETITIVE line. It's COMPLETE because it covers the greatest range of transformer requirements with the fewest types...COMPACT because "dead-wood" has been eliminated...COMPETITIVE because it's COMPLETE, COMPACT and so conservatively priced. • It's different because a stable price policy protects everyone who buys or sells it • It's different because it is supported by active field merchandising that makes it the "livest" line on anybody's shelf • Get the full story on the STANCOR line. It's Different.

S T A N D A R D
T R A N S F O R M E R
C O R P O R A T I O N

850 BLACKHAWK ST. . CHICAGO, ILL.

RECOTON



Makes Any Kadio ______ of a console a Perfect Combination

THIS new record player is a fine, simplified musical instrument at a sensible price—an ideal unit for dealers and service men. A slight pull on the front panel and the entire mechanism comes forward into playing position. No fussing with lids or tops. A splendid high-fidelity phonograph with crystal pickup floating in rubber mounting with a ball-bearing pivot and handy pick-up armrest—special lever on pickup which facilitates placing on record; 12" turntable; self-starting motor with speed control and separate on and off switch; simple to connect, can be operated in closed position; AC or AC-DC models; exceptionally beautiful cabinet—genuine walnut with hand-rubbed lacquer finish.

Some territories still available; write for dealer proposition

RECOTON CORPORATION

178 PRINCE STREET

NEW YORK, N. Y.

TRĪAD

BALLAST TUBES

(Resistor Units)

NOW AVAILABLE FOR REPLACEMENT

*

Assortment No. 1 Consists of
50 Units (Assorted Types) Glass and Metal
of Fast-Selling Numbers

Assortment No. 2 Consists of
100 Units (Assorted Types) Glass and Metal
Other Types Supplied on Request

Other Types Supplied on Request

ALSO A COMPLETE LINE OF RADIO RECEIVING TUBES

A Profitable Line to Handle

TRĪAD MFG. CO., Inc.

PAWTUCKET

RHODE ISLAND

The Quality Name in Radio

PROFITS FROM PLATTERS

Dealer angles on selling records and players

FEATURING COMBINATIONS

* A radio dealer who has gone over to phonograph-radio combinations entirely is the J. B. Bradford Piano Co., Milwaukee, Wis. Local radio prospects are hearing about a new type of merchandising from the concern.

"We feel that the move has been entirely successful so far," says Stuart G. Randall, a Bradford executive. "It has given our salesmen a real opportunity to sell fine musical instruments through salesmanship and not through price cutting. We find a great demand for the combinations, and the margin of profit on them is quite a bit greater than on straight radio."

Bradford's have created a "Capehart Salon" and are vigorously developing all branches of the combination appeal.

RECORD MERCHANDISING UNITS

* New cardboard display in the form of a giant record has been issued by RCA Victor to plug the newest popular dance band recordings. It is the first of a monthly series to be mailed to dealers; others will keep up with current dance fads.

This display is 36 in. high, has a brightly lettered base and circled around the record are pictures of 12 popular bandmasters.

The company has also introduced a new record rack, a compact merchandising unit which may be mounted on its own base or on a counter. It displays records laid flat on a sloping panel front. Space in the back is provided for storage of 600 records, with room for complete accessories.

TOMMY DORSEY AUTOGRAPHS RECORDS

★ Great interest in record buying was stirred up recently in the Boston, Mass., area while Tommy Dorsey was appearing at the Metropolitan theater there. Two local record merchandisers, the Jordan Marsh Dept. store and J. McKenna's Record Shop made arrangements for the popular Victor swing artist to make personal appearances at their stores.

WAX WORTH WATCHING

★ LEO REISMAN and bis orchestra playing Close and Rosalie, both from the MGM film, "Rosalie" and both with vocal by Lee Sullivan—Victor 25698.

GUY LOMBARDO and bis Royal Canadians playing Everything You Said Came True and Maybe with a vocal by the Lombardo trio—Victor 25701.

RUDY VALLEE and bis Connecticut Yankees playing Have You Met Miss Jones and I'd Rather Be Right, both from the musical comedy "I'd Rather Be Right"—Bluebird B7238.

HORACE HEIDT and bis Alemite Brigadiers playing Vieni Vieni with vocal by Lysbeth Hughes, Larry Cotton, Bob McCoy and Glee Club, and In A Mission By the Sea with vocal by Larry Cotton—Brunswick 3003.

DUKE ELLINGTON and his orchestra playing Crescendo in Blue and Diminuendo in Blue—Brunswick 8004.

ANDY IONA and his Islanders playing Naughty Hula Eyes and Kuu Ipo, both with vocal chorus—Vocalion 3762.

BING CROSBY and CONNIE BOSWELL witb John Scott Trotter and his orchestra singing Basin Street Blues and Bob White—Decca 1483.

DICK ROBERTSON and bis orchestra playing Getting Some Fun Out of Life and Roses in December from "Life of the Party, both with vocal by Robertson—Decca 1487.

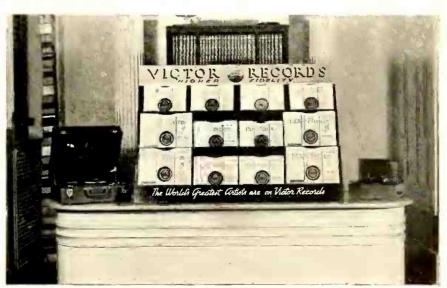
Mr. Dorsey consented to autograph his records personally, and a splash of publicity in local papers brought in fans galore.

In a recent weekly record release, Victor made history by listing only the new swing hits made by Dorsey. The group includes four discs, and ties in with his Friday night broadcasts on NBC.

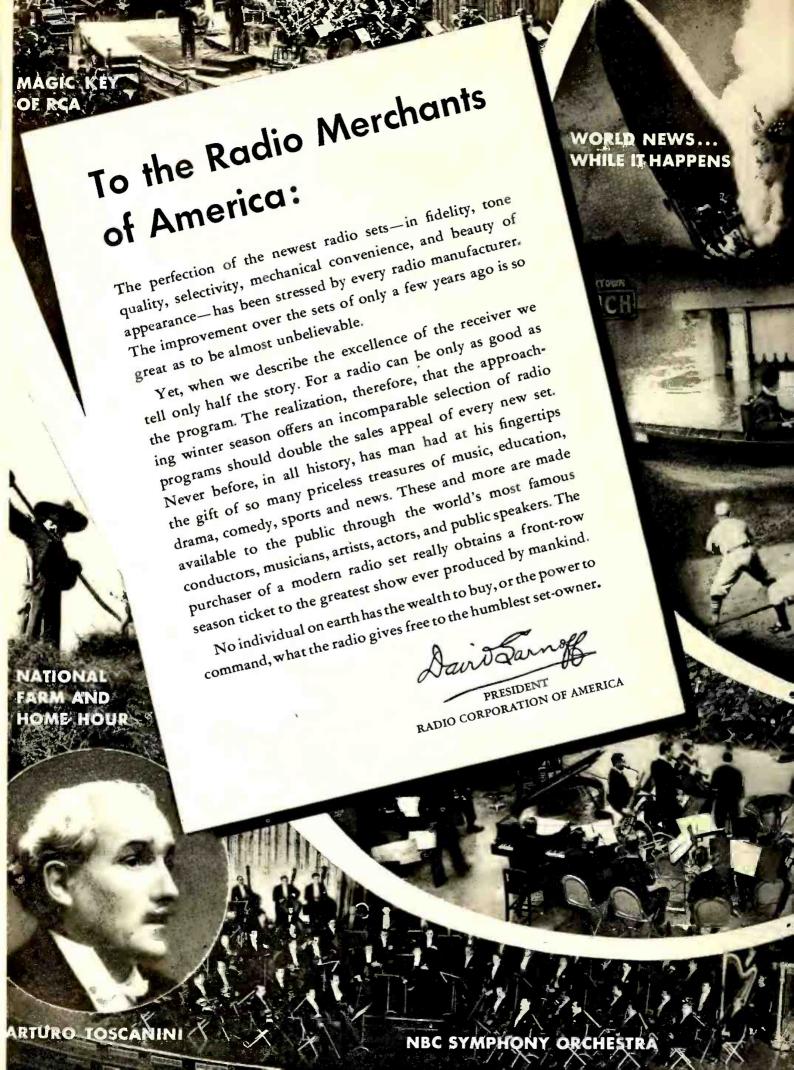
- ★ Charlotte Music Festival in North Carolina recently was used by J. P. McMillan of Southern Radio Corp. as an aid to record sales. The affair included a concert series by renowned artists and the RCA distributor arranged for tie-in ads and displays. David Sarnoff, RCA president, sent a congratulatory telegram. Thomas F. Joyce, advertising and sales promotion manager for RCA Mfg. Co., addressed the Charlotte Chamber of Commerce meeting with dealers; he said that in the coming 12 months, more than \$20,000,000 would be spent to promote the sale of records and combinations.
- * Working together for the first time, Fred Astaire and Ray Noble have recorded exclusively for Brunswick the hit tunes from RKO's new production, "Damsel in Distress." Astaire does a tap dance sequence on the discs, whose numbers are 7982 and 7983.
- * Irving Mills, managing director of Master and Variety labels, has announced that all Variety records will now be listed under the Vocalion banner, and all Master discs will be assigned to the Brunswick label. First platters to be issued under the new plan were Duke Ellington's "Diminuendo in Blue" and "Crescendo in Blue," on Brunswick.
- * Mirror Record Corp., 58 W. 25th St., New York City, makers of all types of blank discs for recording purposes, have announced a new price schedule. Company will send lists to those requesting them.

RECOTON NEEDLES

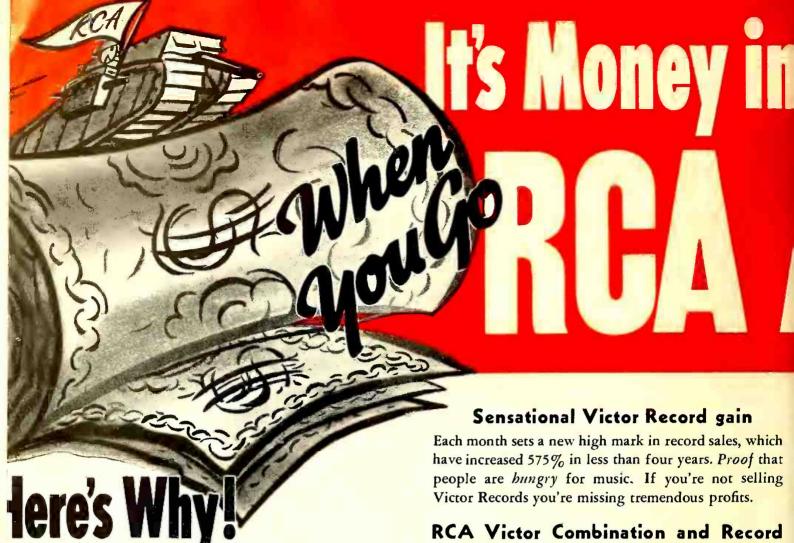
* A new metallic phonograph needle of Swiss make has been introduced by Recoton Corp., 178 Prince St., New York City. It has been specially designed so that the point section is smaller than the rest of the needle, the point itself being a fine one, developed by a unique process to a smooth roundness. The Recoton needle is presented as one which wears the record only very slightly.



New interest in discs has moved manufacturers to issue tricky display units.







1. Only RCA offers you a complete line of radio and sound products - every one a sensational success.

Dealers say it pays them BIG PROFITS to go "RCA All The Way." For only RCA offers them a complete line of radio and sound products. Dealers find that by selling all the products of RCA, they get a steady year 'round business... no seasonal declines... which often occur when dealers carry one product only. RCA makes all the important radio and sound items a retailer needs ... all bear one name, RCA ... all are packed with features that make selling easy...each a leader in its field. The following facts tell an impressive story of why it will pay you to go "RCA All The Way!"

RCA Victor Electric Tuning sets terrific sales pace

In a survey of 15,000 dealers, Electric Tuning was voted the year's greatest selling feature. It has sold radio after radio, smashing all previous sales records. Each sale means \$60 or more profit for you.

RCA Victor Combination and Record Player sales shoot up

Everywhere, sales of RCA Victor Phonograph-Radio Combinations and Record Players mount higher and higher each day. Every sale means a double profit—on Instruments and on Records.

RCA Tubes unquestioned sales leader

300,000,000 of them have been sold—proof of their public acceptance. Proof, too, of the ready market for their sale!

RCA Commercial Sound Equipment sets new high in installations

Here's a business that is on the up-swing-and traveling fast. RCA makes equipment to cover every phase of commercial sound. Ask your distributor for the latest RCA Sound Catalogue.

RCA Parts break all sales records

Never in RCA history have parts sales been so

our Pockets All Year Round LLL THE WAY

high! Genuine RCA replacement parts, accessories and test equipment mean extra money for you. Ask your distributor for the latest Parts Catalogue.

Only RCA offers you products of the world's greatest radio and sound organization.

No company in radio has a background of achievement that even closely approaches RCA's! Only RCA is engaged in every phase of radio and sound. Through the National Broadcasting Company, RCA creates and broadcasts the majority of network programs. Through Victor, RCA has the benefit of 39 years' leadership in sound reproduction. And RCA engineers, NBC broadcast skill, Victor mastery of tone are responsible for the excellent quality of every RCA product. This means every RCA dealer can offer his customers the finest in radio and sound.

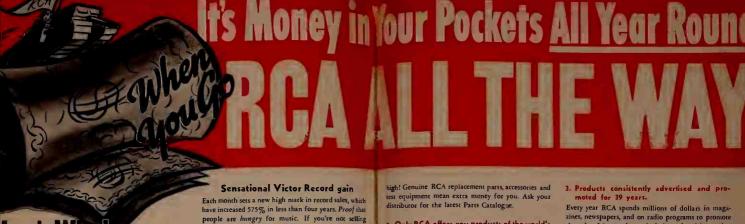
3. Products consistently advertised and promoted for 39 years.

Every year RCA spends millions of dollars in magazines, newspapers, and on radio programs to promote the sale of its products. And that advertising makes sales for RCA dealers. When you go "RCA All The Way," you can be sure that every product is backed by advertising.

4. RCA offers you the greatest name in radio.

RCA's unmatched experience in all branches of radio . . . its outstanding accomplishments . . . its splendid products—all have earned for the RCA trade-mark unequalled fame! The buying public asks for RCA Products. And your association with RCA stamps you as a reliable retailer. That, too, means more money for you.





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Victor Records you're missing tremendous profits.

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. . . its outstanding accomplishments . . . its splendid products-all have earned for the RCA trade-mark unequalled fame! The buying public asks for RCA Products. And your association with RCA stamps you as a reliable retailer. That, too, means more money



OF THE RCA PROFIT ARMY ... Men like " (SAY)

NATCHES JEWELRY

PHONE SOUTH 8. 0960

TYPEWRITERS ELECTRICAL APPLIANCES

GODIN'S CASH OF CREDIT 562 FIFTH AVENUE BROOKLYN, NEW YORK

TIME WATCH AND JEWEIRY REPAIRING

October 29, 1937.

RCA Manufacturing Co., Camden, N.J.

Dear Sirs:

I have been an exclusive RCA Victor dealer for 16 months selling RCA's entire line of products in the field of radio. I send you this letter because I think you deserve to know what a profitable venture going "RCA all the way" has been for me.

Before I took on all the RCA products I did a pretty good business around South Brooklyn selling radios. But since I have standardized on one name and carry a line that is complete in every way, my radio business has not only skyrocketed, but I have felt a general improvement in other lines that I carry. And best of all my profits are consistent - monthly, not seasonal. If you want to use this letter to tell other dealers

value of going "RCA all the way" you have my permission. I wa to help you because you have helped me.

Cordially yours,

GODIN'S INC. quillon Jodin

Milton Godin

THAT IT PAYS TO GO "RCA ALL THE WAY"

S. SIMON, RCA All the Way Dealer in New York City, says: "It took a lot of convincing to make me go RCA All The Way ... but the steady sales I've had ever since make me regret I didn't do it sooner.

NORMAN KAPLAN. RCA All the Way Dealer in Reading, Pa., says: Every day has been a busy day since I have gone RCA All The Way. Profits no longer cram into a couple of months. Now I make good sales all year round."



← JOSEPH FEINBERG. RCA All the Way Dealer in Marshfield, Mass., says: 'Going RCA All The Way has not only cut down my inventory, but has produced a variety of steady business that I missed for a good many years before I began stocking RCA's complete line."



PT98 48 4 EXTRA COLLECT=NEWARK NJ OCT 29 353P RCA MFG CO=CA=

HOW AM I DOING AS AN RCA ALL THE WAY DEALER? SWELL NO MORE HEADACHES ABOUT WHAT TO DO DURING DULL MONTHS BECAUSE THERE ARENT ANY. RADIO LINE SELLING LIKE WILD FIRE. GOING RCA ALL THE WAY WAS BEST THING I EVER DID= JACK SINGER SALES MANAGER LIGHTNING ELECTRIC SERVICE CO NEWARK NJ.

THE COMPANY WILL APPRECIATE SUCCESSIONS PROM ITS PATRONS CONCERNING ITS SERVICE

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



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



METROPOLITAN OPERA

AMERICA'S TOWN MEETING OF THE AIR

DRAMA

RADIO CITY, N.Y.

on main

85.51

INA GLAIRE

PRACTICAL PROMOTION OF APPLIANCES

Products and people in the season's merchandising news

NOVEL LETTER TRIPLES THE RESULTS

"Our policy is to get friendly with the prospect by talking about whatever subject he is interested in," reports Roy Baumann, radio and appliance dealer of Chicago.

To this end, Mr. Baumann has sent out 2,000 letters signed by his small son, Danny, soon after Danny found himself with a new brother. Pasted to the letter was a snapshot of the two youngsters, illustrated page 21. "Danny's letters are two or three times as effective for immediate tangible results as any other type of direct mail or newspaper advertising we have ever done," was the way the stunt ended up.

Here's the letter:

Helo foks:

I wanto introdus mi bruthr to yu. He cam to us a month ago. His nam is Clayton Roger.

Daddy has to do mor bizness now, so we wil apreshiat yur helping him mak mor sals of refrijeraters, radios, ranjs, washers, automatik heet, and apliancses.

Pleez send Daddy a nu customer he wil send yu a chek. If yu nead enithing fer yurself, be shur to kum heer and get ar propasishun. If we kant giv yu mor fer yur muni we dont ekspekt yur biznes. Tha stor is opn evrie nit til 10:30. Daddy iz on tha floor Toosda, Thersda, and Saterda nits.

SPESHUL—ate Westinghows 5 ft. boxs at \$30 saving; fiv Elexterlux 5 ft. boxs at \$35 saving. HURRIE—tha wont last long.

X X X X DANNY

COOPERATIVE SELLING

* Many a new development in cooperative dealer merchandising activity has appeared recently in the appliance field. Utility companies have widened their promotion efforts into something of increasing importance to the retailer.

A lively example of the new trend was noted when E. F. Jeffe, vice-president of the Consolidated Edison Co. of New York, Inc., recently addressed the International Association of Electrical Leagues on the subject of "Cooperative Dealer Merchandising in the Metropolitan New York Area."

A part of Mr. Jeffe's address reads: "The Consolidated Edison Co. endeavors to develop, through cooperative effort, the sale of electrical devices. Business-getting agents and Home Service demonstrators, who are especially trained in the business of selling electric service and electric-

consuming devices for the benefit and happiness of their users, are in daily contact with our domestic consumers. Surveys of electrical appliance applications are constantly undertaken. Results of these surveys are turned over to the manufacturers, distributors and dealers.

"Of a total of 245,000 emergency service calls made within a period of twelve months, more than 10 per cent were occasioned by defective home electrical appliances. A series of letters has been devised which are sent to consumers, outlining the causes of interruption of service. Simultaneously the cooperative retail appliance dealer is notified so that the consumer defective equipment—live prospective electrical appliance purchasers—can be contacted. opens a tremendous market for the replacement of sub-standard or wornout appliances with new, standard appliances which will operate satisfactorily and use kilowatt hours at the low steps of the rate.

Coop advertising

"The company initiates special campaigns linking its advertising to that of the manufacturer and dealers, and developing special effort throughout the sales organization for the sale of the device which is being campaigned.

"Our advertising and display efforts have been developed with the objective of having customers become conscious of neighborhood appliance dealers. The insignia of the approved cooperating dealer appears in our showrooms, newspaper advertising, bill enclosures, as well as in the dealers' windows and on the individual dealer's stationery.

"In a city as large as New York with its large population of foreign-born citizens, many of whom do not speak the English language, it is necessary for us to approach them through the channels of foreign language newspapers and in some cases special advertising written in other than the English language. We endeavor to consider all of our customers and have given particular thought to the people in the lower income bracket groups.

"Company employees conduct lectures in the public and private schools,



Selling refrigerators as gifts is one of the profitable projects at the Delaware Power & Light Co., Wilmington. Here's W. J. Frame landing a sale.

in the churches, and in other assemblages, where consumers are acquainted with the advances and newest developments in the domestic electrical appliance field and in the proper use of home electrical appliances for their convenience and happiness. They are shown how to do things electrically. These demonstrations are given annually to about 250,000 individuals, and the Company's staff of Home Service specialists make approximately 2,500 demonstrations annually on major electrical appliances in the consumers' homes. monthly a meeting of approved cooperative retail appliance dealers is held for active demonstrations and discussions by experts on the origin, development, operation and cost of home electrical devices. To these meetings are invited the appliance sales employees of both the Company and the dealers. Manufacturers have been cooperative in freely furnishing equipment and experts to assist in demonstrations at these meetings.

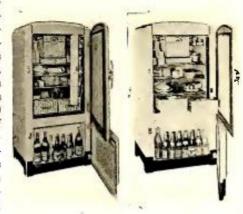
"Whenever an electric range is sold, a trained and experienced Company employee demonstrates the proper use of this equipment to the consumer, in the consumer's home, to make certain that it is properly used and gives satisfactory and efficient service. No time or expense is spared in proper instruction in the use of electrical appliances, by experts furnished by the Company without cost or obligation to the consumer, to the manufacturer or his distributor, or to the retail appliance dealer.

Practical angle

"This Company realizes its responsibility toward the electrical appliance merchants. We are not dealing in generalities, but rather are getting to the 'meat' of the problem. The practices of over-selling and 'overjazzing' these merchants have been discontinued, and in the place of such practices, there has been substituted a good, sound business development plan. The interest of these merchants is considered in every phase of our business. We assist them to become prosperous business men and make periodic contacts with a view of solving their problems in a common-sense, practical, business manner.

"Much can be said for the individuality of cooperative merchandising plans as pertaining to separate and distinct regions. Because of the different conditions, all of which must be studied for the development of proper plans and campaigns, it is not to be expected that any one plan can be universally adopted."

Fairbanks-Morse newest



★ Improved line for 1938 includes leader models EX4 and EX6 three DeLuxe models EL5, EL6, and EL7, and four Super DeLuxe models E4, E5, E6 and E7. The latter group, represented here by an illustration of model E7, include the Conservador. The other model shown here is EL6, without the Conservador.

General features to be noted in various models include a new type nonrefrigerated reserve storage compartment, an improved Conservador, new
dial-type temperature control, shelves
of the ribbon, sliding or split types,
self sealing crisper, sliding fruit
basket, glass wool insulation, a redesigned evaporator and condenser
unit, etc. Fairbanks, Morse & Co., Indianapolis, Ind.—RADIO TODAY—see
also advt. p. 2 and 3.

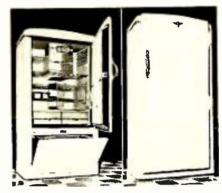
Stewart-Warner 1938 refrigerators

★ Line includes 6 DeLuxe models, 768, 668, 568, 768P, 668P, and 568P, the latter 3 porcelain inside and out; and 3 Master models 658, 558 and 458. DeLuxe model 768, illustrated here, has vapor sealed cabinet, high-bake DeLux exterior, porcelain interior. Net capacity, 7.5 cu. ft.; shelf area, 16 sq. ft. Equipment includes sav-a-step, push-button slid-a-tray, econ-o-lite, cold storage chest, interior thermometer, 2 tilt-a-shelves, illuminated 16-point cold control dial, safety temperature control, jumbo porcelain vegetable fresh-



ener, jumbo fruit basket, porcelain evaporator with reversible door. It makes 136 cubes or 11% lbs. of ice, has ice tray release, automatic interior light, feathertouch trigger door handle, slo-cycle twin cylinder compressor.

Master model 658, also illustrated, has vapor sealed cabinet, exterior DeLux, interior porcelain. Net capacity, 6.3 cu. ft.; shelf area, 14.2 sq. ft. Equipment includes sav-a-step, one tilt-a-shelf, 12-point cold control dial, safety temperature control, food freshener, porcelain evaporator with reversible door, one removable evoparator shelf, glass chilling tray. Four ice trays make 96 cubes or 8 lbs. of ice. Model also has interior light, one sliding shelf, Feathertouch spring ac-



tion door handle, and slo-cycle twin cylinder compressor. Stewart-Warner Corp., 1826 Diversey Pky., Chicago, Ill.
—Radio Today.

Frigidaire's new models



Line just announced for 1938 is made up of de luxe models 8-38 (illustrated) 7-38, 6-38, 5-38 in porcelain, and master models 8-38, 7-38, 6-38, 5-38 and 4-38 in durable Dulux. One imperial model also included. Model 8-38 has 19.4 sq. ft. shelf area, 8.25 cu. ft. for food storage. Makes 108 cubes weighing 14 lbs. Features are silent meter-miser, quick-tube tray, automatic tray release, 9-way adjustable interior, 2-way frozen storage, sliding shelves, 2-way multistorage, sliding hydrators with moisture-seal lids, four zones of cold. automatic reset defroster, doublerange cold control, food-safety indicator, automatic interior light, silent sentinel, touch-latch door opener, and others. Frigidaire Division, General Motors Corp., Dayton, Ohio-RADIO TODAY.

(To next page)

- ★ Home Appliance Dealers' Association, Philadelphia, Pa., reports renewed activity in cooperation with dealers and distributors in the elimination of harmful practices, such as retail selling at discount and objectionable advertising. B. H. Poucher, 17th at Sansom St., is executive secretary.
- * Fairbanks-Morse comes out with new refrigerator lines earlier this year, with its national distributors' convention Nov. 15th and 16th in Indianapolis at the Columbia Club. This procedure allows dealer showings to be held before Dec. 4. and gets the new models on the dealers' floors for the Christmas trade. W. Paul Jones, general manager, and John S. Garceau, advertising and sales promotion manager, point out that national refrigerator figures show a strong trend toward earlier seasonal selling.
- ★ GE's general manager of appliance sales, R. J. Cordiner, has announced organization changes both in the field and at headquarters: C. R. Thorson, formerly district appliance sales manager at Minneapolis, is now sales manager of the electric clock section at Bridgeport, Conn. J. P. Rainbault continues as manager of the section. T. B. Allen, formerly district appliance sales manager at Atlanta, succeeds Thorson at Minneapolis, and J. M. Walker, formerly general sales manager at Rex Cole, Inc., New York, is now district appliance sales manager at Atlanta.
- * Special showing of Bendix Home Laundry, the automatic washer which is described as "the successor to the washing machine" was sponsored recently in New York City by jobbers Bruno-New York, Inc. A large audience found its attention riveted on the dramatic presentation. Speakers were Irving Samoff, Bruno-New York, president; Judson Sayre, Bendix vice-president; John W. Chamberlain, Bendix engineer, and others.
- ★ Earl D. Doty has been appointed advertising manager of Delco-Frigidaire conditioning division of General Motors. Mr. Doty has been with Frigidaire and its predecessor, Delco-Light, for 21 years.
- ★ Former appliance sales manager Charles R. Pritchard of the General Electric Supply Corp., Atlanta, Ga., has been named manager of specialty appliance sales for the same organization at its Bridgeport, Conn., headquarters.
- ★ Frigidaire's new electric range, "a gleaming white lifetime porcelain sister to the General Motors Frigidaire refrigerator," has been given dramatic showings at the Waldorf-Astoria Hotel in New York City, at the American Furniture Mart In Chicago, and at the Dayton Art Institute, Dayton, Ohio. The firm has introduced its 1938 refrigerators 3 months earlier this year than has been the custom.



Russell W. Ayers, new chief engineer of Stewart-Warner's refrigeration division. New 1938 models shown Nov. 11-12.

★ The new 1938 Stewart-Warner line of refrigerators, introduced to distributors Nov. 11 and 12 in Chicago, will be backed by more than twice as much national advertising as was used in 1937, according to John Ditzell, radio and refrigeration sales manager for the firm. Stewart-Warner's network feature will continue in 1938, changed to the NBC Blue web at 9 p.m. EST on Tuesdays with more stations and more power added. Big schedules in magazines, newspapers and on billboards are also planned.



Roy Johnson is now ad manager of the entire household appliance sales division of the General Electric Co.

- ★ The Norge line of 1938 refrigerators will make its debut at the national convention of the company's distributors at the Hotel Statler, Detroit, Nov. 15 and 16. Important at the convention will be the Norge sales director, P. B. Zimmerman, working with the company's executive merchandisers as well as with the advertising specialists, Cramer-Krasselt, Milwaukee, Wis.
- ★ Edward F. Theis has been named works manager for the Indianapolis plant of Fairbanks, Morse & Co. According to W. Paul Jones, the FM general manager, the appointment of Mr. Theis will allow the company to take advantage of new equipment and production lines recently installed.
- * The new lines of electric ranges and electric washers to be manufactured by Frigidaire Division, General Motors Corp., will be marketed under the trade-name "Frigidaire," Frank R. Pierce, manager of Frigidaire's household division, announced recently. Frigidaire's Moraine City, Ohio, plant has been in production since Sept. 8 on electric ranges and information on marketing plans will be released toward the end of the year, Mr. Pierce said, He indicated that still other household appliances will be added to the Frigidaire line in the not too distant future.
- ★ R. V. MacDonald, district appliance sales manager for General Electric in St. Louis since 1933, has been transferred to Dallas in a similar capacity. Mr. MacDonald will succeed F. W. Wheeler, who leaves his position in Dallas to assume other duties with the appliance sales organization. B. C. Bowe, who has been district manager of radio sales for GE in St. Louis, has been appointed district appliance sales manager to succeed Mr. MacDonald.
- * To meet the demand for washers to be operated from power chargers, Crosley Radio Corp. has introduced four Savamaid models. These are exactly the same as the standard washers except for the power equipment.
- ★ O. D. Miller, district manager of appliance sales for the General Electric Supply Corp. at Dallas, has been apointed manager of the Allentown, Pa., branch of the same organization, succeeding L. H. Miller. The latter has been named sales manager of the G-E domestic refrigeration sales section at Cleveland. Mr. L. H. Miller, thus advanced to a key position, has been a GE merchandising expert since 1925. With special success he has handled executive positions in Louisville, Cleveland, Harrisburg, and Allentown, Pa.
- * Now vice-president in charge of refrigeration division of Crosley Radio Corp., is Charles R. D'Olive. Mr. D'Olive formerly worked with Stewart-Warner, having joined that firm early in 1933 in an executive capacity. Trained as an engineer, he has an exceptional background of engineering, production and sales experience.

FAKE "14-TUBE" RADIO ANALYZED

Additional details of laboratory tests in comparison with standard receivers

* ON pages 12-14 of this issue, RADIO TODAY charts the results of tests conducted by a reputable radio laboratory on the fake "14-tube" radio set purchased by RADIO TODAY's editors in the New York metropolitan market. These charts compare the performance of the fake "14-tube set." with a standard 14-tube set and with a standard set in the same (\$69.95)

A partial interpretation of these charts and underlying tests is given on the earlier pages referred to. Reproduced herewith are more complete engineering details of the tests bearing on the three sets compared, together with comments on the performance of the fake "14-tube bargain" offering.

Selectivity

In many districts the selectivity of the \$69.95 fake "14-tube" console would be inadequate to permit reception of all the local stations without interference. Strong stations will override some of the weaker ones. Note in Chart 3 on page 12 that the adjacent channel selectivity is less than half as good as the standard \$69.95 set and only 40 per cent of that of the standard 14-tube receiver. What good is a receiver that gets two or more programs at the same time.

Volume or power output is another important feature of a receiver. For lifelike reproduction the set should be able to play the loud passages without distortion. Chart 4 shows that the standard 14-tube set has 10 times as much power, while the standard \$69.95 set is roughly 31/2 times better in this respect.

High hum

Other characteristics not illustrated that have been taken are as follows. The hum in the fake "14tube receiver is extremely high-it can be heard at a distance of 15 or 20 feet. On a comparative basis it is about 60 times as bad as the hum in the standard \$69.95 model.

In some localities the poor imageratio of the fake "14-tube" set may cause interference from nearby police radio stations and amateur stations, or even strong local stations.

This image selectivity is about 75 times better in a standard 14-tube

If the owner is located near the seacoast or stations broadcasting on frequencies near the intermediate frequency of the receiver, it is very likely that code transmissions will spasmodically interfere with the reception of even local stations. The standard 14-tube set is about 80 times better in this respect while the standard \$69.95 is roughly ten times as

Short wave

While the faked receiver is advertised as covering foreign short-wave, it tunes to only one of the six international short-wave bands. Many allwave sets tune on all six bands, and the majority cover at least five of

Distortion of the broadcast signal is of prime importance where clear, lifelike reception is desired. harmonic distortion in the standard 14-tube set is less than one-third of that occurring in the fake "14-tube" receiver

Rather than be satisfied with laboratory tests of the receiver, the set was given a trial at the technical editor's apartment in downtown New York. A few more bad points were found, as well as generally verifying the lab tests. Motorboating was apparent at several regions on the dial. and on the high-frequency end of the dial the set would often go dead over an area of 400 KC (oscillator went dead). Also much noise was picked up via the AC power line.

:	Standard 14-tube set	Standard \$69.95 set	Fake 14-tube set
T	ube con	nplement	
RF amp. Convert. Oscillat. AFC cont. I.F. amp. Discriminator Detector, AVC 1st audio 2nd audio Phase invert Output Rectifier Ballast	6K7G 6L7G 6C5G 6J7G 6K7G	None {6A8G} 6K7G {6R7G} 2-25L6G 25Z6G BKX21B	None {6A7 } 6D6 {75 } 25L6G 25Z5 (M17HG)
Tuning eye			(7-03G) 6G5

Tuning bands in kilocycles

550-1700 550-1700 5500-18,000 2200-7000 (4 bands)

Standard Standard 14-tube 14-tube \$69.95 set

Sensitivity in microvolts per meter at 1/2 watt output

600 KC	17.2	75*	23
1000 KC	16.3	24*	39
1400 KC	33.2	29*	49
6000 KC	22.0	210*	70

*Set has lo-impedance antenna winding designed for all-wave antenna transmission line, con-sequently values should not be compared to those of the 14-tube sets.

Selectivity in kilocycles at 1000 KC

10 x	10.0*	17.8	13.5
100 x	19.7*	27.8	43.0
1000 x	31.2*	36.6	77.0
*Sharp sel	ectivity posi	tion.	

Image ratios

600 1000 1400 6000	KČ KC	100,000 19,600 1,500 360	254 113 34.2 19.5	113 22.2 9.4 9.05

I.F. response ratio

600 KC	560	21.4	17.4
1000 KC	2400	254	20.0
1400 KC	1720	242	19.4

Harmonic distortion (total)

Antenna input 1000 KC, 5000 microvolts, 30% modulated, 400 cycles.

Output			
50 milliwa	atts	• • • •	1.83%
300			2.98
600	1.2%	2.08%	5.33
1000	1.76%	3.4	8.7
1500			35.9
3000	1.98	5.2	
4000		18.0	
10.000	8.05		
13,000	14.0		
17,000	39.4		

Harmonic distortion with constant output

Antenna input 1000 KC, 80% modulated, 400 cycles.

5000 microvolts	1.84	3.82	5.09	•
15,000 50,000	2.68	3.72 3.58	7.15	5
150,000	3.50	12.0	10.0	
Output standar	d sets—1/2	watt,	faked s	et—50

Residual hum

Audio system on	цу.	
.3 microwatt	.28	194.0
1.4		45.0
		6.4
• • • •	• • • •	5.0
• • • •	• • • •	••••
	.3 microwatt 1.4	1.4

Modulation hum

200,000 microvolts at 1000 KC

•			
120 cycles	22 microwatt	5.9	2780
180	202	62.3	1080
240	2.4	6.9	370
300		9.4	113

I.F. Harmonic whistle

(2nd harm) Input 50 microvolts Negligible 150 500 ** 1500 150,000 15.0%

Electrical fidelity

30 cycles	-0.94 DB	-15.9 DB	-20.0 DB
50 °	.80	-8.3	-13.9
100	.62	-4.1	-6.7
150	.38	-3.3	-3.6
200	.14	-2.4	-2.4
300	0	-1.26	-0.3
400	0	0	0
700	.14	.8	.38
1000	.14	.8	.38
1500	-0.46	.2	
2000	-1.70	-1.9	-0.38
3000	-2.7	-5.64	-3.14
4000	-6.0	-8.8	-8.42
5000	-9.0	-12.02	-13.5
6000	-12.7	-16.4	-18.4

AVC figure of merit

Relative to 200,000 microvolts 44.0 DB 44.2 DB 33.4 DB

AUTOMATIC TUNING SYSTEMS

A simplified explanation of how the Motorola and Detrola electrical push button tuners operate

★ CONTINUING the series of explanatory articles on electric tuning, Radio Today this mouth presents the Motorola and Detrola systems. Complete schematic and illustrative diagrams designed to show clearly how the various parts perform are included. For the Stewart-Warner and Admiral systems refer to pages 42 and 44 of the October issue. And on pages 24 and 26 of the September number the RCA-Victor, Sparton, and General Electric push-button tuners were explained in detail.

Motorola network tuner

The Motorola tuning mechanism is quite interesting in that a rotor with but a single switch is employed to select 19 stations. The push buttons are located on a circle on the front of the set. In Fig. 2, the center drawing shows how these buttons are placed. On each push button there is a stop arm which can be rotated through a small angle, and the exact position of this arm determines the setting for the station. The right-hand drawing at the top shows the

side view of a single button. When the button is depressed, the entire assembly moves.

On the rotor (center and right-hand drawings) there is a switch which controls the operation of the motor. Note that this switch "B" is lecated behind a small slot. When a push button is pressed, the projection on the stop arm is brought nearer to the rotor. When the rotor turns so that the slot is opposite the projection, the projection drops in the slot and opens the switch, thereby killing the motor. If two buttons were depressed simultaneously, the motor would tune in the first station it reached.

Locking plates

In addition to the rotor and push buttons, there is a locking plate which serves to hold down any button that is pressed and to release the button previously selected. This plate is comprised of two identical sheets of thin metal. The plates are assembled with springs which tend to rotate one plate with respect to the other in such a manner as to keep the holes out of line. The edge of the hole on one plate will cover up part of the hole on the other plate.

Close examination of the shaft connected to the push buttons will show that there is a notch for locking it into position. When the button is depressed, the holes in the locking plates are lined up during the time that the shoulder on the shaft is passing through the plates. Since the holes are in alignment, the spring en the push button previously depressed causes it to snap up. When the selected button is pushed into the operating position, the locking notch is in line with the locking plates. The spring on the plates then forces the plates out of alignment and the button stays depressed.

Fig 1 shows the electrical circuit employed. A reversing switch is attached to the condenser gang and serves to reverse the direction of rotation when the condenser is in either extreme position. The switch "B" for station selection is connected in series with the ground return of the motor. In addition, there is a manual switch which serves to kill the AFC and open the motor circuit when manual tuning is desired.

In operation, contacts "A" and "B" must be closed for the motor to run. When the release button is depressed for hand tuning, the motor circuit is broken at "A." When any other button is pressed for automatic tuning, the release button jumps out, closing the circuit at point "A." The motor then starts turning the mechanism until the slot in the rotor reaches the button that has been pressed, at which time the circuit is broken at "B" stopping the motor.

Tertiary motor winding

A rather unusual means of killing the audio system during tuning is employed in this receiver. A third winding is introduced into the motor. Whenever the motor is turning or connected, a voltage is induced into the tertiary winding. This 60 cycle voltage is rectified by a diode and the resulting negative voltage used to bias the audio amplifier to cut-off. As a result no additional switches are required for muting the set.

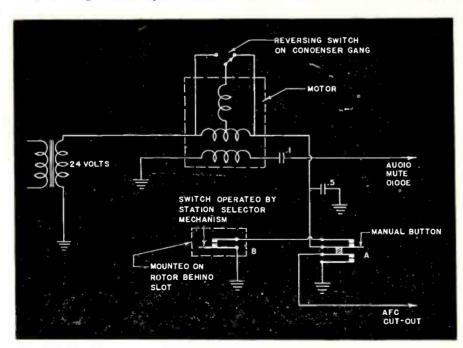


Fig. 1—In the Motorola system of electric push button tuning the station selecting is done mechanically so that only one switch is required for station selection. Note that a third motor winding is used to provide a voltage for biasing the audio system to cut-off, thus eliminating a muting switch.

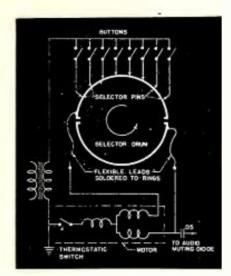


Fig. 4—Electrical circuit employed by Detrola. Momentary type buttons are used for station selection—no manual button is needed.

To set up the mechanism the statiou stop arm is loosened and the station and manual buttons are depressed together. The station is then tuned in by hand while watching the cathode ray tuning eye. In this way the proper setting of the station stop arm is obtained. Siuce each arm covers only a small portion of the whole dial, its range of frequencies is limited. Be sure that the range of the button selected includes the desired station, if not, use one that does. Two stations normally falling on the same button cau be accommodated by shifting the rotor-condenser relationship, so that the stations fall on adjacent buttons, instead of the same one.

The Detrola push button tuning system employs the selector drum type of mechanism with a series of adjustable contacts for setting up the stations. Fig. 3 shows the actual layout of the drum and station contacts. The contacts are mounted in two slots and are movable in an 180° arc.

Momentary contact switches

In Fig. 4 the electrical circuit of the arrangement is given. For each station there is a momentary type switch operated by the push button. One side of each switch is connected to an adjustable contact.

When any button is held down the motor starts turning in such a direction as will bring in the desired station. This is accomplished by having a split drum, each side of which is connected to a different motor winding. If the desired station lies to the *left* of the last station tuned in, the motor winding which will turn the motor directly to that station au-

tomatically connected since the contact for that station is to the *left* of the dead point on the drum. If the desired station were to the *right*, the contact for the desired station would be to the *right* of the dead point,

By using this drum arrangement the mechanism always goes direct to the desired station. Of course, it is necessary that the push buttons be set up so that from the low frequency end, the frequency progressively increases for each contact (in the two slots).

Thermostatic switch

Note that a thermostatic switch is incorporated in the motor to prevent burnouts due to continuous operation of the motor. This switch opens after approximately 10 minutes operation and closes after the unit has cooled down.

Muting of the audio systems is done by taking off an AC voltage from one of the motor windings and rectifying it. The resultant negative DC voltage is employed to bias the audio amplifier to cut-off. The AC voltage for the muting is present only when a station selector switch is depressed and the station selector drum moving. After the station is tuned in (contact resting in gap between selector drums) no voltage is present since the circuit has been opened by the selector drum.

Station set up is accomplished by tuning in the station manually and moving the adjustable contact so that it coincides with the break on the selector drum. A small lamp with a flexible lead is attached to the chassis to indicate visually when the contact and insulated section are in exact alignment. No manual button is required since non-locking types of buttons are used. When selecting a station, the push button is held down until the dial stops moving, at which time the station is tuned in.

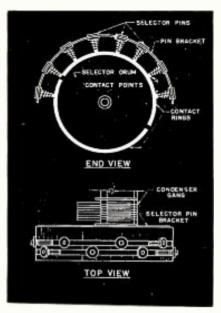


Fig. 3—Arrangement of the selector pins and selector drum used in the Detrola set.

SERVICE SHOP GETS DIAGNOSIS CHARGE

* Ben J. and Harvey M. Lang who operate Lang's Radio Shop. 1929 Winnebago Street, Madison. Wisconsin, always insist on a diagnosis charge when someone brings an ailing radio into their shop.

This diagnosis charge usually amounts to a minimum of \$1.00 and it consists of the time taken to inspect the radio and find out what the trouble is. Sometimes such an inspection takes two hours. The set owner theu must pay for his repair work separate.

"We've been in the radio business for fifteen years and we've always insisted on this diagnosis charge," states Ben Lang. "In the first place, you must pay a doctor for a diagnosis when you come to him to find out what is the matter with your body. If the doctor treats you, the treat-

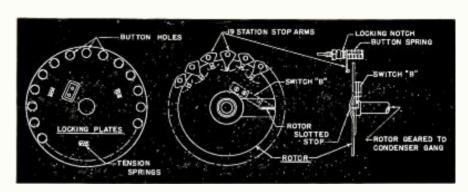
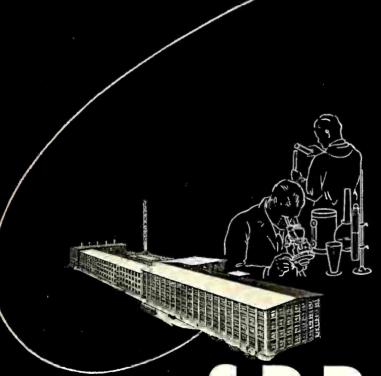


Fig. 2—Mechanical details of how the Motorola network tuner is made. Locking plate at left releases previously depressed button and locks the desired one. Center and right drawings show rotor with switch for stopping motor. Station stop arms are adjustable to accommodate any desired stations.

SERVICE

History speaks for itself. It shows unmistakably that Sprague Condensers have always led in quality because they have always been the first to be improved. Constant, far-reaching engineering research is a Sprague tradition.

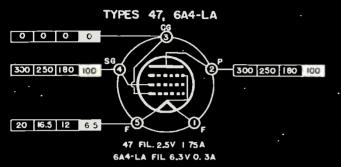


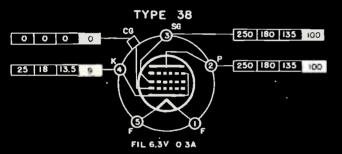
SPRAGUE

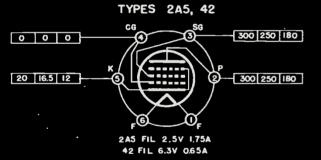
GOOD CONDENSERS—EXPERTLY ENGINEERED—
COMPETENTLY PRODUCED

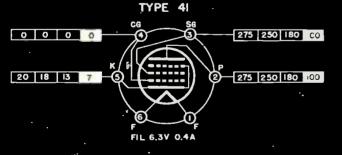
SPRAGUE SPECIALTIES COMPANY, NORTH ADAMS, MASS.

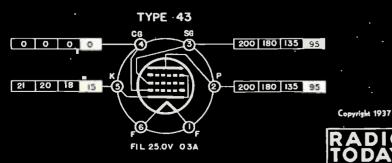
OPERATING VOLTAGES AND SOCKET LAYOUTS FOR POWER OUTPUT PENTODE AMPLIFIERS

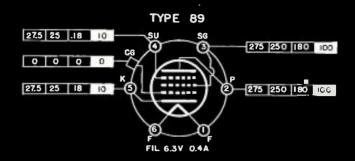


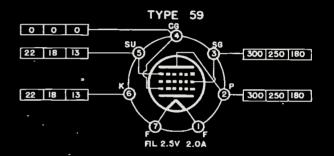


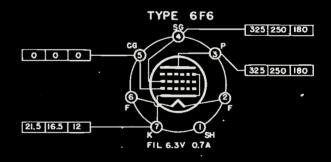


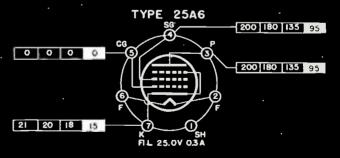












TOP VIEW OF SOCKETS

AVERAGE VOLTAGES (TC GROUND OR 8-) AS USED IN SETS

(left group - high, middle - usual, right - low)

White blocks give voltages for AC-DC operation at 115 volts

Three sets of voltages are given for AC operation of tubes — these represent the normal range found in present-day radios. The left hand set of potentials represents the highest voltage usually encountered. The middle group is most commonly found, while the right hand listing is the lowest set of voltages ordinarily used. For any particular tube, use either the high, low, or middle group of voltages exclusively.

Tubes having the same socket wiring and voltages are grouped together—thes tubes are equivalent but not necessarily interchangeable.



Model Chassis 56.... 57.... WILCOX-GAY* Continued from S40... 541 September RADIO TODAY 4DB10..175—RC 4E6....115—RC 4G7....456—RC 4H11-740 456—RC 580 SA-5. SA-6. SA-65. SA-90. 456 41A6 456 41A6 456 41C6 456 41C6 456 SA 91 SA 91-A SA 99 SA 110. SA 120. SA -130. 175 4JC6-780 456-5A6...456-5A6-89..456--RC -RC -RC SA-133... SH-9... SH-500... SH-501... SU-5... ..175 ..175 ..175 ..456 5A6-810.456-5B5-89..456-5B5-800.456-5BS.800,456—RC 5BA5...456—RC 5E7...456—RC 5E7-91...456—RC 5EA7...456—RC 5F8-90..456—RC 5F8-790.456—RC 6A5....175—RC 6BB8 175—RC .456 SWAN 485 SW-88.... U-50.... U-50.... .485 .486 485 485 U-500.... .456 .456 5F8.790.456—RC 6A5...175—RC 6BB8..175—RC 6J4...175—RC 6S12...456—RC 6S12...456—RC 7A5...175—RC 450..... 451.... 452 456 6S12...456—RC 6T11...456—RC 7A5...175—RC 7C6...175—RC 7CB6...175—RC 7D6...175—RC .370 .370 .370 460 470-A 7D6. 175—RC 7E5. 456—RC 7E5. 456—RC 7G5. 175—RC 7H5. 175—RC A-11. 175—RC A-15. 175—RC A-17. 175—RC A-18. 175—RC A-19. 175—RC A-20. 175—RC A-21. 456—RC A-22. 175—RC A-23. 175—RC A-24. 175—RC A-24. 175—RC A-24. 175—RC A-24. 175—RC A-24. 175—RC ZENITH * 090. 175 4-B-106. 456 4-B-131 456 4-B-132. 456 4-F-227. 4-P-26.. 4-P-51..

.F. PEAKS and COLOR CODING

PART XII . RADIO TODAY . NOVEMBER, 1937

Model I. F. Chassis Peak 6-B-129. 456 6-B-164. 456 6-D-116. 456 6-D-117. 456 6-D-118. 456 6-D-202. 456 6-D-219. 456 6-D-221. 456 6-D-221. 456 6-D-233. 456 6-J-230. 456 6-J-230. 456 6-J-230. 456 6-J-257. 456 6-M-90-D. 252.5 6-M-90-D. 252.5 6-M-91-D. 252.5 6-M-91-D. 252.5 6-M-91-D. 252.5 6-M-91-D. 252.5 6-M-91-D. 252.5 6-M-192. 252.5 6-M-193. 252.5 6-M-194. 252.5 6-M-194. 252.5 6-M-194. 252.5 6-M-194. 252.5 6-M-194. 252.5 6-M-128. 456 6-S-128. 456 6-S-137. 456 6-S-152. 456 6-S-152. 456 6-S-152. 456 6-S-223. 456	7-D-253. 456 7-J-232. 456 7-J-232. 456 7-M-911. 252.5 7-M-911. 252.5 7-M-915. 252.5 7-S-28. 456 7-S-232. 456 7-S-232. 456 7-S-232. 456 7-S-242. 456 7-S-242. 456 7-S-242. 456 7-S-242. 456 7-S-260. 456 7-S-260. 456 8-S-129. 456 8-S-129. 456 8-S-147. NS 8-S-154. 456 9-S-30. 456 9-S-34. 456 9-S-34. 456 9-S-34. 456 9-S-34. 456 9-S-242. 456 9-S-244. 456 9-S-246. 456 10-S-153. 456 10-S-155. 456	12-S-205. 456 12-S-232. 456 12-S-243. 456 12-S-243. 456 12-S-265. 456 12-S-265. 456 12-S-267. 456 12-S-268. 456 12-U-158. 456 12-U-158. 456 12-U-158. 456 15-U-270. 456 15-U-271. 456 15-U-271. 456 15-U-272. 456 15-U-273. 456 16-A-61. 456 16-A-61. 456 16-A-63. 455 90. 175 90. 175 91. 175 92. 175 93. 175 103. 175 210. 175 211. 175 210. 175 211. 175 210. 175 211. 175 2220. 175 221. 175 221. 175 221. 175 222. 175 2230. 175 2241. 175 2241. 175 2241. 175 2241. 175	252. BC-175 SW-1000 260 BC-175 SW-1000 261 BC-175 SW-1000 263 175 270 175 270-5 125 271 175 272 BC-175 SW-1000 288 485 410 175 411 175 414 175 414 175 414 175 414 175 410 175 411 175 410 175 411 175 410 175 411 175 410 175 411 175
6-S-223	10-S-156456 10-S-157456	241175 244175	500
7	R—Resistors	color coded	\$20 175 \$21 175 \$30 175 \$31 175 \$31 175 \$52 175 \$50 485 \$600 175 \$602 175 \$603 175 \$604 175 \$605 175 \$606 175
7-D-241 456 7-D-243 456	used thro	ughout the set	607175 608175

5401......456 5403.....456 610. 5405 5408 456 5409. 5502. 5508. 5509. 252.5 5513.... 5513-A... 5520.... 5521.... .175 .175 . . 456 620..... 621.... .456 .456 5526. ..456 252.5 5605 252.5 252.5 5607 5611. 5612.... 5614.... 5618.... 5619.... 125 252.5 252.5 252.5 5621 ..456 252.5 680.... 5637 5638 701..... 702..... ..456 702. 456 705. 485 706. 485 707. 485 711. 485 712. 485 5642... 5644... .456 .456 5701-R 252.5 252.5 252.5 715 175 730 175 735 175 740 175 5704.... 5709.... 5710.... 456 5711..... 5803..... ..456 252.5 760..... 765.... 456 175 175 175 5905.... AH. BH-LHB.... MHA.... 780.....175 801.....456 ..456 .252.5 .252.5 .252.5 .. 175 252.5 252.5 RHS-829. S-817. S-870. S-871. S-908. 809... . 252.5 . 252.5 811.... 252.5125 5.909 S-961 ... 252.5 WH ... 175 WHA ... 175 485 815......125 825......485 827..... 829..... 835..... 845.... DeLuxe.....485 Stratosphere.. 485 .252.5 817. 850. 860. .252.5 .252.5 .252.5 ZEPHYR 5DA......456 5DK.....456 6G 6GM. 81. 8JM. 861... 252.5 456 862.... 252.5 20A6 30YP6 32B7 866. . . .252'5 456 870.... ..485 ..485 ..485 ..252.5 456 456 456 870..... 871..... 880.... 908.... 909.... 32B7. 32P6. 32Y5. 32Y6. 35B7. 35Y12. 41X6. 61X5. 61X6. 61X8. 63X8. 65X8. 456 .252.5 ...125 .252.5 .252.5 456 950... .456 .456 .456 960..... .252.5 .252.5 ...175 456 456 456 456 456 975... .. 175 65X8.... ...485 AA.... B102..... 456 456 456 1000-Z... ..485 DA..... DB, DBC... ..485 ..485 .252.5 1001.... 1001-A.. 1117... DBL..... DC...... 1161... . 125 456 DDB..... DF..... 456 456 456 252.5 252.5 1167.... 1201... 1201-A 456 .456 .456 .456 485 1202..... 1204..... 1501..... ...456456456456 GBC:.... 456 1601-0 GBE..... GE.....456 GR, GRC....456 2022-A.....175 2059......175 2501-C. (THE END) .485

Model Chassis

619.

668

l.F. Peak

2501-P....

* RADIO TODAY with this twelfth installment of the I.F. Peaks and Color Coding completes the largest and most accurate listing of I.F.'s ever compiled—a total of more than 8,000 models. In addition to the frequencies listed in this feature, the peaks of more than a thousand scts have been included in the Specifications of Receivers published during the past year in RADIO TODAY.

These listings have been checked and rechecked against all available sources of information, including the set manufacturers' files when possible. And the color coding data supplied by the set manufacturers is found only in this feature of RADIO TODAY. To the co-operating manufacturers and publishers listed below, the editors of Radio Today extend a well-deserved thank you.

*Indicates that the listings bave been checked by the manufacturer.

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456

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4-T-51... 4-T-51... 4-T-51... 4-V-31... 4-V-59...

F-233. F-251. J-217.

J-247 1-255

-M-90 -M-191 -R-216.

S-119

5-S-150 5-S-151

-S-161. -S-201. -S-218.

·\$-220. -\$-228. -\$-237. -\$-250.

252

6-B-107

A-20....175— A-21....456— A-22...175— A-23...175— A-24...175— A-25....175 A-26...456—

\(\frac{\capa_3}{23}\) \(\frac{175}{-RC}\) \(\frac{\capa_2}{24}\) \(\frac{175}{-RC}\) \(\frac{\capa_2}{24}\) \(\frac{175}{-RC}\) \(\frac{456}{-RC}\) \(\frac{456}{-RC}\) \(\frac{426}{-RC}\) \(\frac{426}{-RC}\) \(\frac{426}{-RC}\) \(\frac{436}{-RC}\) \(\frac{456}{-RC}\) \(\frac{456}{-RC}\) \(\frac{436}{-RC}\) \(\frac{436}{-RC}\) \(\frac{456}{-RC}\) \(\frac{436}{-RC}\) \(\frac{456}{-RC}\) \(\frac{436}{-RC}\) \(\frac{456}{-RC}\) \(\frac{436}{-8C}\) \(\frac{456}{-RC}\) \(\frac{436}{-8C}\) \(\frac{456}{-RC}\) \(\frac{456}{-RC}

A-35...456—RC A-36...456—RC A-37...456—RC A-38...456—R

WURLITZER*
"Lyric"

"Lyric"
A-60. 485
B-6. 175
B80. 175
C-4. 456
DC65. 175
LU5. 456
LW5. 125

Whenever possible, it is recommended that reference be made to the manufacturer's service notes for complete information on the set.

2062.

980

1001

While every effort has been made to have this listing 100% accurate, in a compilation of this magnitude, some errors are possible. The editors will appreciate hearins of these mistakes. Copyright 1937 by Caldwell-Clements, Inc. Not to be reprinted without written permission.

Acknowledgement is given to the following additional sources of information: Bernsley's Official Radio Service Handibook, Gernsback's Official Radio Service Manuals, Chirardi's Radio Field Service Data, Hygrade Sylvania's Auto Radio Servicing & Installation, National Union's Official Chart of Peak Frequencies, Rider's Perpetual Trouble Shooters Manual.

of all it surveys-

AN ALL-SERVICE TUBE AND SET TESTER

for general radio servicing for auto radio servicing for publicaddress systems, sound equipment and transmitters

equipment and transmitters

HIS great addition to the impressive list of sensational Simpson developments has been named the "Test Master" because it offers complete mastery of every condition that can arise in every branch of radio servicing—in the store or on the job—now, or in years to come.

No other instrument, selling at any price, covers so much ground—yet its price is lower than that of instruments that do not approach its range, its accuracy, its stamina, its beauty of design and finish. Here, brietly, are some of the features it brings to you:

A tube tester of improved design—based on R.

A tube tester of improved design-

esign—based on R.
M. A. standards,
employing double
switching of tilament terminals
(which eliminates
obsolescence) for obsolescence) for testing special types such as 5 X 4 G, 5 Y 4 G, 6A5G, 6P7, etc., without adaptors or special sockets. It provides screen fluorescence and angle test tor "magic eye" 000 a CHITTIED . "magic eye" tubes: hot cathode

Model 220 "Roto-Ranger" Tube and Set Tester—a great tester with the convenient Simpson Roto-Ranger feature which provides separate resistance scales of 100 — 100,000 — 100,000,000 ohms — separate D.C. scales of 8 — 300 — 1,000 volts. \$62.75



No other tester, selling at any price, provides as many tests and ranges!

Yet the dealer's net price is only \$59.00

leakage neon test and "high sensitivity" neon short check—individual tests tor each electrode in tube. Cathodes, diodes, battery types and gaseous rectifiers are tested under proper load. Even "noise test" pinjacks are provided for ear phone connection. Impressive "good" and "bad" scale is provided as well as percentage scale for comparing or matching tubes. It is a tube tester that tells the whole story to you and your customer in your terms and his terms. Tube charts in loose leaf form are readily accessible in the cover. Supplementary cards are easily added added

SIMPSON ELECTRIC CO., 5216 W. KINZIE STREET, CHICAGO, ILLINOIS



YOUR JOBBER



A set tester of tremendous scope—As a set tester the Model 440 has six A.C. and D.C. voltage ranges at 1,000 ohms per volt — 0-7.5-30-150 - 300 - 750 | 1500. All A.C. ranges are available for output measurements. Three ranges cover resistance from 1 ohm to 100,000,000 ohms. Scales are 1,000 ohms (30 ohms center): 100,000 ohms (1,000 ohms center). Four milliampere ranges are provided—0 - 3 - 15 - 75 - 300. There are six decibel ranges of —12 to + 58. D.C. current range of 0 - 15 amperes is incorporated for autowork. Capacity range is 0 - 30 microfarads. Meter leakage test for all condensers including electrolytics is provided.

vided. There truly There is truly nothing that you can ask tor, or find in any instrument that is not covered by the Model 440 at the moderate price of \$59.00. It is sold on deterred payments. Write Joday for complete descriptions

Model 201 and 202 "Roto-Ranger" Volt Ohm Milliammeter Ranger" Volt-Ohm-Milliammeter with twelve independent scales covering all ranges for general servicing. Net price Model 201 (for D.C. \$32.50 only) Price

THE ONLY



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



GOLD CROWN HEAVY DUTY POWER PLANT

Cash in on this Market

ASK

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, Here is an exclusive dealer-jobber line of portable electric light,

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.

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□ "RED TOP" □ "GOLD CROWN"	☐ Converters	Dynamotor:
Name		



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A 64-page special section of Rider's Valume VIII giving explanations of the electrical aperations of the mare complicated 1938 receivers and instruments.

Principles and theory you need.

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Hord Cayers—144 pages—\$1.00

SEND FOR COMPLETE LIST



SERVICING RADIO SETS

(Continued from page 47)



Serviceman Lang believes, and rightly too, that he should be paid for diagnosis as well as for repairing the set.

ments cost extra. In the radio business we feel it is the same. If you give a free diagnosis service, some set owners may think your quotation on repairs too high and take the set elsewhere to be repaired. Then you lose out.

But when you make a diagnosis charge, you are paid for your time, and you can also show the client you know what is wrong with his set; you can also quote him a price on the repairs, and you stand a chance of getting the order right away in most cases."

In the set shown in the picture the repair job ran to \$16.75 which was much more than the client figured. However, when Lang explained that there was transformer and condenser

trouble, etc., and showed how much time it would take to make the repairs, the client said okay. The diagnosis charge was additional.

STROMBERG-CARLSON HI-FI RECEIVERS

★ This year's line of S-C highfidelity receivers have several new circuit arrangements. Separate diode circuits are used for the AFC, AVC, and audio circuits.

At the extreme left of the diagram the 2nd I.F. transformer is shown with the fidelity-tone switch "A" in the normal position. When switched to the hi-fi position a 270 ohm resistor is connected in the secondary circuit of the transformer and a 10 ohm unit in the primary side. A similar but slightly different circuit is employed in the 1st I.F. transformer. This added resistance changes the effective coupling and "Q" of the circuits thereby increasing the bandwidth of the I.F. amplifier which is necessary to hi-fi reception.

The 6B8 2nd I.F. amplifier tube uses its two diodes separately. Onc is connected to a tuned circuit which is directly coupled to a tertiary winding in the 3rd I.F. transformer and is used to provide an audio signal across its load resistor. The extra tuned circuit provides additional selectivity.

The second diode of the 6B8 is capacitively coupled to its plate circuit. The rectified voltage is used to provide AVC. The diode load resistor instead of going directly to the grounded cathode is returned to a

point a few volts negative to ground, thereby providing a delay action in the AVC circuit.

The third diode circuit in the receiver is the AFC twin-diode discriminator which supplies voltage to the AFC control tube.

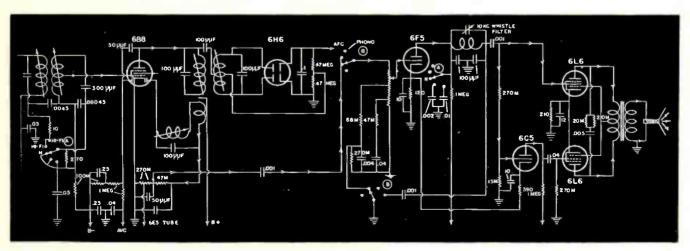
Switch "B" is the bass and phonoswitch. Phono connections have been omitted for simplicity. In the audio system of the set, a 6C6 phase inverter tube is employed to drive the lower 6L6 output amplifier.

SILVERTONE WHISPER TUNING CIRCUIT

★ Featured in the larger Silvertone receivers is whisper tuning, a type of noise squelch circuit which keeps the sensitivity of the set from building up when tuning between stations. This low noise circuit also serves to kill the audio system.

The low noise circuit makes use of a 6Q7G tube in which the effective plate voltage applied to the tube is adjustable by means of a 750 ohm potentiometer in the cathode circuit. The plate current of this tube creates a voltage drop through the diode load resistor to which it is coupled and therefore puts a negative bias on the control grids of the AVC controlled tubes. Note in the circuit diagram that the heavy lines represent the complete plate to cathode circuit. The negative voltage is also applied to the diodes of the second detector and provides a delayed detection act and quiets the set. (Circuit on next page.)

A portion of the I.F. signal is fed to the diode of the 6Q7G whisper tuning tube. The resulting diode current creates a voltage that is applied to the grid of the tube to provide negative bias. When a sufficiently strong signal is tuned in, the negative bias applied to the grid of the



Stromberg-Carlson employs separate diode circuits for AFC, AVC, and audio in the larger sets. Other features illustrated are the high-fidelity circuit controlled by switch "A" and the audio phase inverter tube.

First Aid HURRY-UP JOBS

F16.1

FIG.2

Handy AEROVOX PBS Cardboard-Case Electrolytics.

Made still handler with new Adjustimount metal flanges.

Match any mountlng-hole spacing. Mounted singly or stacked.

In 200, 450 v. and 600 D.C. working. All standard capaclties.

Single, dual and triple sections.

More for your money. More value to your trade. More good will for you.

■ For those emergency repairs —when every minute counts use these handy general utility AEROVOX PBS Electrolytics. But for the best grade of servicing, insist on AEROVOX Exact-Duplicate Replacements.

Ask....

New entalog is yours for the asking. Ask your jobber or write us direct.

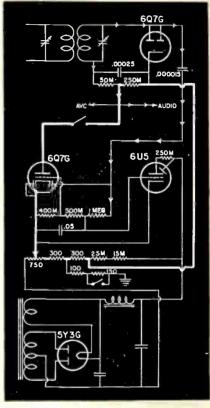




NEW CIRCUITS

6Q7G will be strong enough to decrease the plate current of the tube. The voltage drop due to this plate current is biasing off the receiver as expained above. Therefore, the decrease in bias will increase the sensitivity of the R.F. and I.F. stages. This increased sensitivity will permit more diode current to flow in the whisper tuning control tube thereby decreasing the plate current still further until the plate current is practically cut off. This action takes place in a fraction of a second so that the station seems to break in instead of gradually building up in volume.

The strength of the signal necessary to create sufficient negative grid voltage in the whisper tuning control tube to cut off the plate current depends upon the plate voltage of the tube which in turn is determined by the setting of the potentiometer. Therefore, this setting determines the break-in point of the receiver. The drop-out point depends upon the plate current-grid voltage characteristic of the tube. This differs from the break-in point because at the dropout point the plate current of the tube is at maximum; at the break-in it is at minimum. The plate currentgrid voltage characteristic of the tube is different at these two extremes. When the low-noise control is at normal position the switch in the plate circuit is opened so that it cannot put any bias on the other tubes.



Circuit of the Silvertone whisper tuning noise control.

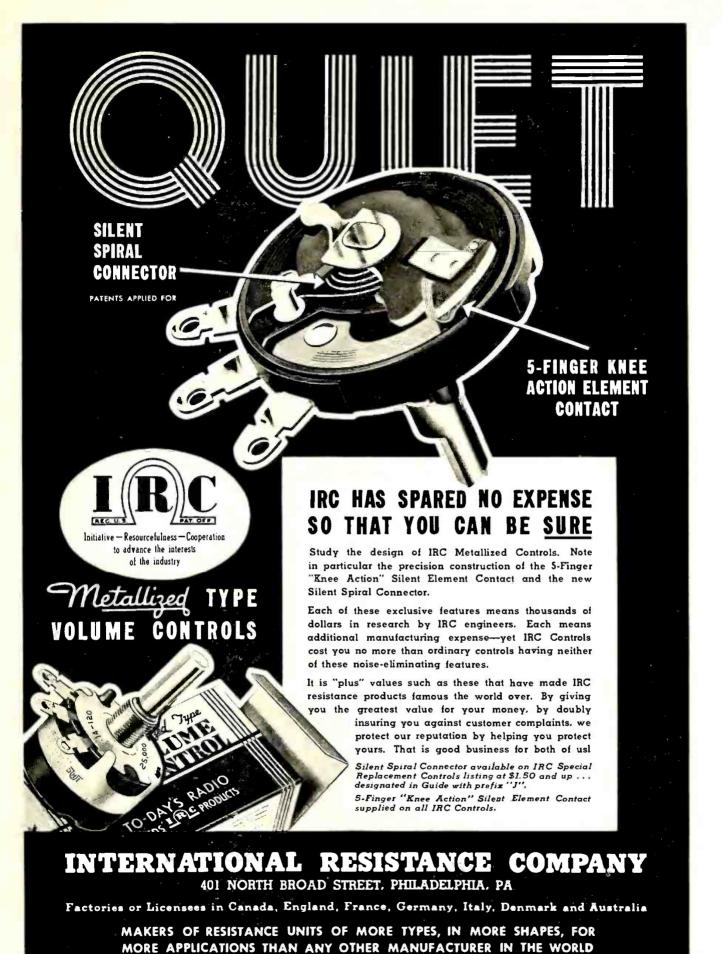
ADAPTER UNIT FOR SOCKET ANALYSIS

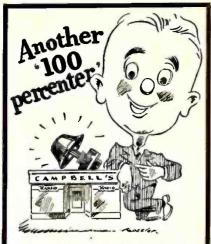
* New use for RADIO TODAY'S Socket Wiring and Voltage Data Charts has been submitted by W. A. Diefenbach of the Radiocraft Shop in Waterloo, Iowa.

Analyzer unit is of the usual type



Colony Radio Service of Washington, D. C., have fitted up the basement for a spacious workshop. Consequently overhead for the service department is kept to a minimum. Also, noise will not disturb customers upstairs.





Mr. J. A. Campbell of Scranton, Pa.

says:

... we consider QUALITY of parts a major essential ... and am consistently 100% Centralab.

Boy! . . . what a boost for Old Man Centralab. But, then . . . that's the reward for trying to "make a better mousetrap than our neighbor." No wonder the radiomen have been making a beaten path to our door.

The Standard Radiohm offers accurate tapers—low noise level—longer life and better power dissipation.

Get the 1937 Volume Control Guide



STANDARD RADIOHM

Centralab

Milwaukee, Wis.

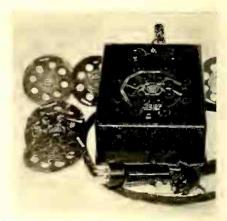
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BRITISH CENTRALAB, Ltd. Canterbury Road, Kilburn London, N.W.6, England

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

SERVICE NOTES





Left, the layout and voltage chart as adapted for use in the analyzer at right.

arranged to accommodate copies of the charts which have been published in numerous issues of this magazine. The unit illustrated herewith has the pin tip jacks mounted in line with 8 equally spaced radii. The charts are mounted on a circular card. Lines are drawn from the tube elements to the corresponding jacks which carry the circuits illustrated in the center. In this way the jacks are automatically marked. In addition to having the circuits marked, this arrangement uses the voltage data supplied on the charts.

This voltage data gives the values most commonly used in receivers and is of great value when the manufacturer's service data is not available or does not specify the voltages. The voltages are mounted adjacent to the corresponding pin tip jacks. Tube sockets are mounted on rear portion of the panel.

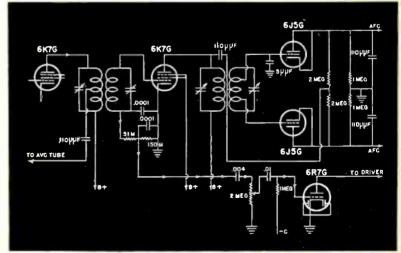
Writes Servieeman Diefenbach, "The layout charts make a wonderful job for point to point testing as you need a top view of the socket."

PHILCO COMBINED DETECTOR-AMPLIFIER

* This year's model 116 Phileo has an unusual 6K7G amplifier and diode detector. Tube is employed as a grid-leak biased tetrode amplifier driving the AFC discriminator. Also the rectified audio voltage developed across the grid leak is fed to the audio system.

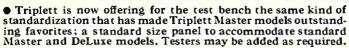
Circuit is shown in the aecompanying diagram. Note that the suppressor grid is tied to the screen of the tube. When a signal is fed to the grid of the tube, the grid and eathode aet the same as any diode detector and a negative bias is developed across the load resistor. This negative bias serves to vary the gain of the 6K7G amplifier tube—the more bias, the less the gain, etc. In other words, the tube acts as a limiter amplifier providing full gain on weak signals and greatly reduced amplification on strong signals.

Since the grid is part of a reetify-



In the Philco 116 set a 6K7G tube is employed as diode detector and limiter amplifier for the AFC discriminator.

Standardized Jest Bench Panels.by



• Testers are held firmly in the panel compartments by flexible rubber retaining grommets with compression fit. Instant installation or removal of instruments is possible. When in the panel, testers give appearance of being permanently installed.

Laboratory panel cabinets can be bolted together if desired.

• Cabinets are of metal, black wrinkle finish, Size 221/2"x16"x5" top, 71/8" bottom.

Provision for lamp attachment.

Price of Cabinets. Any Model Only \$10.00, Dealer Net; Clamp-on Lamp, \$4.34, Dealer Net.

Model 1402 Accommodates Any Two DeLuxe Models.

Model 1403 Accommodates Any One DeLuxe and Two Master Models.

Model 1404 Accommodates Any Four Master Models,

(Illustration shows three cabinets bolted together)





Model 1404, 45

Model 1404 As Shown Contoins the Link Price Stone Unit Price Stone Link Price Stone Link Price Stone Contoins Strate Unit Price Stone Link Price Stone Link Price Stone Link Price Stone Link Price Stone Contoins of Presenter Stone Link Price Stone Link Price Stone Link Price Stone Link Price Stone Stone Link Price Stone Stone Link Price Stone

Wodel 1402 Woderston

Model 1403 Wadels: Model 1403 As Show

Model 1601

New Triplett DeLuxe Set Tester

Contained in black leatherette case (as shown) with removable cover. Roomy compartment for accessories.

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Also furnished in black wrinkle finish metal case (same as above less black leatherette carrying case and cover).

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Model 1403,Model 1404;Model 16	01;
I am also interested in	
Name	

Address. State City



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CROWE NAME PLATE & MFG. CO. 1771 Grace Street CHICAGO, ILLINOIS

SERVICE NOTES

ing circuit, it is only logical to use the audio voltage which is developed across the load resistance. The audio component across the load resistor is coupled to a 2 meg tone-compensated volume control and thence to the 1st audio amplifier.

Another unusual item in the set is the use of a separate diode eircuit for AVC. This diode tube is coupled to a tap on the primary side of the third I.F. transformer.

The AFC eircuit is similar to the Philco circuits that have been described in former issues of RADIO Today. Since a "push-pull" type of AFC control tube is employed, two AFC voltages are supplied by the discriminator.

BOOK REVIEWS

AUTOMATIC FREQUENCY CONTROL SYSTEMS

By JOHN F. RIDER

* The addition of AFC to the superhet receiver has added just one more problem that the serviceman must solve. And "Automatic Frequency Control Systems" has been written to help the serviceman crack this new problem.

As in all good textbooks, a chapter is devoted to a brief explanation of electrical and radio principles involved in AFC circuits. In this way the reader reviews the required fundamental principles.

Another chapter is devoted to the theory of the discriminator and contains basic circuits employed by the various manufacturers in their sets. Both elementary and advanced explanations are given with illustrative

A fourth section is devoted to the theory and operation of the oscillator control tube. Commercial AFC Circuits is the title of the chapter which illustrates and explains the operation of the circuits employed in the 1937 and many of the 1938 receivers.

Of extreme value is the data devoted to the various methods of alignment in AFC sets. Specific references are made to current receivers. And the concluding chapter deals with servicing AFC circuits.

Book is chock full of data on AFC. We feel that it is a must item for every serviceman's library-it should be read and kept on hand for reference

Size of book is about 71/2 x 5 inches and has more than 140 pages. Priced at \$1.00 and bound in washable cover. Published by John F. Rider, 1440 Broadway, New York, N. Y .- RADIO

SERVICING WITH SET ANALYZERS

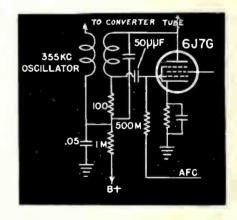
Bu H. G. McENTEE

* Written mainly for the beginner in radio servicing, Servicing with Set Analyzers begins with a chapter of 11 pages on the fundamental principles involved in the design of an instrument for measuring voltages, currents, resistances, etc. The section on the use of the analyzer, illustrated with many diagrams, presents material of the "every-day" variety.

Of value to all servicemen interested in commercial test equipment is the 26-page chapter on manufactured instruments. Pictures, circuit diagrams, and a description of representative types of servicing equipment are given. Paper bound, and 64 pages, the book sells for 50 cents and is published by Raderaft (Gernsback) Publications, Inc., of N. Y. C. -RADIO TODAY.

ARVIN MODELS 1237 & 1247

★ Last month on page 64 of RADIO Today the circuit of the Arvin models 1237 and 1247 had a slight error in the tuned circuit of the 355 KC oscillator. While the error is quite obvious upon inspection, the portion of the circuit involved has been corrected and is presented herewith.



The fixed condenser across the tuned side of the circuit should have been connected across both the coil and the 100 ohm resistor instead of just the coil alone. This connection across the two elements is required so that a phase difference in voltage will be applied to the grid of the 6J7G control tube.



Crystalline Metal Case

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grid control. Fast and

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No service man likes to make good a Job failure in or after working hours. That is why so many radio repair men are using Ward Leonard Replacement Parts. These parts are conservatively rated and thoroughly tested before you get them. Send for data shown in Price List No. 507A.

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Please send me service man's price sheets No. 507A.

Name .		 	 	

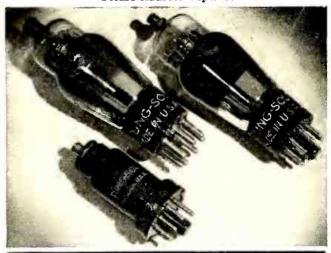
Jobber's	Name	 	 	

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FIELD TRENDS IN MODERN P. A.

Assorted hints in selling and servicing sound installations

BUSINESS BLUNDER

* A veteran sound man points out that one of the unfortunate "sales diseases" in the sound business is over-eagerness on the part of priceminded salesmen to close sales. The blunder is that they want only the name on the dotted—with or without profit.

The volume demons do their work vigorously but are forever rushing back to headquarters with the suggestion that the boss cut the price so that a certain job cau be landed. They do not realize that jobs done at cost are purely a series of headaches. And their attitude indicates that the matter of price, rather than quality or customer satisfaction, has been the basis of their sales talk.

LOUDSPEAKERS AS BUGLERS IN MODERN WAR

★ The colonels or sergeants-major of old-time army days who prided themselves on being able to shout orders to an entire regiment without cracking their vocal cords have lost their jobs to science, according to Dr. E. E. Free, consulting sound engineer, Flatiron Building, New York City.

At recent maneuvers in England of the 131st Surrey Territorial Brigade of the British Army, successful experiments were carried out using a microphone, a radio amplifier and a loudspeaker for the issuance of military orders. An artificial voice thousands of times stronger than any living man could shout made every word of the commander audible to even the most distant recruit. Meanwhile the commander himself did not need to raise his own voice above a whisper.

Light-weight motor trucks, carrying the amplifiers, loudspeakers and other necessary equipment, now can follow military commanders as buglers used to do, explains Dr. Free. Even on foot the commander might still take portable equipment with him, although the leader of a modern mechanized army is likely always to ride a car or tank, as his amplifier and sound engineer also can do. For instructional maneuvers such as the recent ones in England, the equipment

is even more useful. The troops under instruction can hear all orders and see how these are carried out. The instructor also can explain, like a lecturer in a classroom, just what is going on. For secrecy in time of actual war it would be possible for commanders to use special signals, as is done with football teams.

PROPER CARE OF MERCURY VAPOR RECTIFIERS

★ It has been noted that in some quarters, there is an unjustified fear of the larger mercury vapor rectifiers associated with high powered amplifiers. The general impression is that the life of these tubes is very short.

Actually, their life even under severe operating conditions may be found to be of extraordinary length if certain precautions are taken. First, practically all of these tubes should be mounted in a vertical position. Before the high voltage is applied to their plates, be sure that their filaments have been heated a sufficient length of time to remove any particles of mercury which may have adhered to the electrodes. The time involved is sometimes as much as 30

Trailer chapel sound equipped for missionaries. The rear wall folds outward, forming a roof and a platform. At this microphone is Father Holloran.

minutes, and this same procedure must be followed every time one of these tubes is removed from its socket and replaced.

The small particles of mercury adhering to the electrodes cause a flashover when the high voltage is applied, with a definitely disastrous result. The heating process vaporizes these globules and allows them on cooling to return to the reservoir in the base of the tube. After the initial heating, repeated use—provided the tube has not been moved—requires only about 30 seconds of preheating.

NO SLUMP IN SOUND, SAY DISTRIBUTORS

"Our report on the sales of sound equipment in this territory is definitely 'favorable.' We note that the income to be realized from this business is increasing."—Radio Service Laboratory, Portland, Me.

"Certainly on the increase—this is how we characterize the volume of sound equipment sales in this part of the country," opines the Fergerson Co., Paducah, Ky. "If you compare the unit sales of this merchandise with those of a year ago, our estimate would be that they are at least 10 per cent better."

"The trend in sound is strongly upward. As far as the Washington district is concerned, we can say that in our own activity we see quite an increase in sound sales."—Capital Radio Wholesalers, Washington, D. C.

"I think that unit sales of sound equipment here are up as much as 30 to 40 per cent. If you consider the total dollar volume being done in this branch of the radio business, there can be no doubt but that it is on the increase."—Hunter's Radio Shop, Enid, Okla.

"Although we do not handle sound equipment at this time, it is our observation that sales in that field are better. From the looks of things in our area, we would say that general activity in public address is increasing."—Brown Electric Co., Oklahoma City, Okla.

"We will simply say that compared with former activity in sound, sales out here are slightly better. We must say also that we notice a trend toward cheaper equipment, and yet an increased total dollar volume."—Power City Radio Co., Sioux Falls, S. Dak.

NEW BOOKLETS

- ★ Now off the press is Philco's new parts price catalog. Its 40 pages have more than 300 illustrations; some 10,000 items are listed. Prices on replacement parts and consumer accessories are not given, but net figures are included on items used exclusively by servicemen.
- * Andrea Radio Corp., 48-20
 48th Ave., Woodside, N. Y., have issued a new catalog for U. S. dealers and jobbers on the Andrea "Climate Sealed" line. Booklet lists 16 features of the 1938 models. Ten receivers are described and shown, including AC, AC-DC, farm, and phonograph-radio combination.
- ★ Western Electric Co., 195 Broadway, has released a new bulletin on receiver equipment designed to cover the various frequency bands useful in aviation work.
- * "Modern Small Panel Instruments" is the title of a new folder released by General Electric Co., Schenectady, N. Y.
- ★ Special material to assist commercial sound distributors and dealers to promote the series of 74 commercial sound service meetings being held in 38 states, has been issued by RCA Mfg. Co., Camden, N. J., in a new booklet.

- * New list price Birnbach catalog, the first to be issued in 3 years, is now available free from Birnbach Radio Corp., Inc., 145 Hudson St., New York City. Over 3,000 items are listed in elaborately illustrated style, including antennae and accessories, insulators, sockets, jacks, plugs, conductors and cables.
- ★ Recently released by National Carbon Co., Inc., is an elaborate 14-page descriptive catalog (No. A 1352) on Eveready flashlights and batteries. The colorful booklet lists some 30 items, currently of special holiday interest, and will be sent free to those addressing the firm at 30 E. 42nd St., New York City.
- ★ Currently offered by Radio and Technical Publishing Co., 45 Astor Place, N. Y. C., is A. Ghirardi's Supplement Sheet Service, to keep the Radio Fleld Service Data Book up to the minute. Price offer covers period from Sept. 1937 to Sept. 1938.
- ★ Just released by Weston Electrical Instruments Corp., Newark, N. J., is a new folder on test equipment—"for industry, school and laboratory."
- ★ Entirely new service manual has been issued by Clarostat Mfg. Co., Inc., 285 N. Sixth St., Brooklyn, N. Y. Handy pocket size, it has over 200 pages of exhaustive and detailed data compiled as a result of extra work by engineers. Copies are free to those writing on biz stationery.

 (To next page)



There's money in sound! Wherever crow's gather — in auditorium and theatre, in school and factory . . . at the swimming meet, tennis match, polo field or stadium, there's your market for this Lafayette Amplifier. Powerful, yet compact—capable of handling the largest indoor and most outdoor functions. We have yet to meet a sound job too big for Lafayette Model 292-A- yet to meet a sound amplifier that can match this Lafayette for the money.

look at a few of these big

- * 4 INPUT CHANNELS
- * EXCLUSIVE (illuminated) NEO-DIAL
- ★ 5 STAGE—14 TUBES (all metal type)
- * NEW INVERSE FEED BACK CIRCUIT
- ★ BUILT-IN 40 WATT FIELD SUPPLY
- ★ VARIABLE A.V.C. AND A.V.E. CONTROL
- ★ CATHODE-RAY "EYE" OUTPUT INDI-CATOR
- ★ VARIABLE TONE CONTROL

MORE FEATURES THAN EVER BEFORE IN A SINGLE AMPLIFIER

tells you all about Lafayette Sound Systems. Information on where and how to use, how to save, plus 50,000 other items listed: Lafayette's great 1938 line of 70 receivers, amateur equipment and parts. Easy Time Payment Plan! Send for FREE 180 page catalog today.

WHOLESALE RADIO SERVICE IN NEW YORK, N.Y. CHICAGO, ILL. ATLANTA, GA

Wholesale Radio Service Co., Inc. 100 Sixth Avenue, New York, N.Y.

Rush FREE 1938 Catalog Na. 69-12L7

Name

Address

City.....

PASTE COUPON ON PENNY POST CARD

The World's fastest Selling Line of DRY ELECTROLYTIC CAPACITORS THE HEN YOU order C.D. electrolytics

WHEN you order C-D electrolytics you KNOW that, whether if be an "8 mike" or a "16 mike," it will be absolutely the best obtainable in the industry.

If you could step behind the scenes at the Cornell-Dubilier plant and witness the careful selection and inspection of raw materials, the extreme precautions taken by C-D engineers to insure positive sealing, (C-D dry electrolytics are triply sealed), against corrosion and humidity, and the endless test and inspection of the finished electrolytic, you would understand why these condensers are the world's fastest selling line of electrolytics.

Be sure you say. "C-D" when ordering your dry electrolytics. Send for complete technical data, Today?

CORNELL-DUBILIER
ELECTRIC CORPORATION
1022 Hamilton Blvd., So. Plainfield, N. J.





CORNELL-DUBILIER
ELECTRIC CORPORATION
South Plainfield, New Jersey

TO GET MORE BUSINESS... Sell Something NEW



THAT'S the slogan of dealers who are in the money today. That's why leading dealers all over the country are featuring the PRESTO JR. SOUND RECORDER. Because it's new. Because everyone likes to talk into a microphone. Because everyone likes to hear his own voice reproduced from a phonograph record.

THE PRESTO JR. RECORD-ER will bring more customers into your store . . . make more friends for you . . . give you more word of mouth advertising than anything else in your line. There is still time to attract the Xmas trade to your store with this fascinating new gadget.

WRITE TODAY FOR THE NEW PRESTO FOLDER ENTITLED "HOW TO SELL THE PRESTO SOUND RECORDER." It tells you step by step how successful dealers have developed the market for recorders. It illustrates free window and store display material, ready to run ads for your local newspaper and direct mail pieces.

PRESTOREGORDING CORP. 137 W. 19th St., New York, N. Y.

★ Two-color, 8-page general catalog of new test instruments is offered free by Supreme Instruments Corp., Greenwood, Miss. This broadside describes the company's 1938 set testers, analyzers, signal generators, multimeters, frequency modulators and both 2 in. and 3 in. cathode ray oscillographs.

★ Data on the protection of electrical equipment, dealing particularly with the precise protection afforded by the Re-Cirk-It breaker, is offered in a new 8-page illustrated folder available from Heinemann Electric Co., Trenton, N. J., on request.

* "Official Football Facts and Guide for 1937" is being distributed by Philco dealers. W. W. "Pudge" Heffelfinger, former Yale star, has edited the booklet.

★ New tube chart for use with the Precision Electronometer is being released by Precision Apparatus Corp., 821 E. New York Ave., New York City. This testing information is available free to owners of series 500 or 600.

★ Pocket-size tube complement booklet of 165 pages has been released by Hygrade Sylvania Corp., Emporium, Pa. Included are complements for 10,386 receivers, complete I.F. frequencies, replacement information on 75,000 sockets, trade name directory, technical articles, etc.

★ Off the press recently was Raytheon Production Corp.'s 11th edition of the firm's characteristic data chart. It carries more complete information for jobbers' salesmen, dealers and servicemen and may be had free from Raytheon jobbers or from company headquarters at 420 Lexington Ave., New York City.

* A folder titled "Clear Reception," handling the subject of background noise suppression and featuring several types of noise eliminators or filters can now be had free from Aerovox jobbers or from offices at 70 Washington St., Brooklyn, N. Y.

* "High Fidelity Radio Reception" is the title of a new 11-page booklet issued by Philco Radio & Television Corp., Philadelphia. It was written by chief engineer W. H. Grimditch in non-technical terms and is available from Philco jobbers.

★ Three new folders have been published by Pioneer Gen-E-Motor Corp., 466 W. Superior St., Chicago. Titles are "Pinco Gold Crown Heavy Duty Power Plants," "Red Top Gas-O-Lectric Power Plants," and "Now Is the time to Sell Pinco Power Plants."

★ To aid the easy selection of radio transformers and chokes, Jefferson Electric Co., Bellwood, Ill., has just issued a catalog (372-R) of 16 pages—augmented by a similar number of pages on public address equipment. Booklet includes a transformer replacement guide for nearly 2,000 sets, dimension tables, and other data. Copies are free.

SQUAWKING BABY



* From parts jobbers, servicemen may now get a new window-counter display card released by National Union Radio Corp., 570 Lexington Ave., New York City. The card is lithographed in brilliant red, green, black and silver, and features a photo of a squalling baby.

FLASHING COLORED PHOTOS

* Advertising broadcast entertainment along with Touch Tuning, General Electric has released a giant action window display made up of three units. Center unit, illustrated here, is an enlarged reproduction of the GE instrument panel. Tuning buttons are included and as a hand moves out to touch them, natural color photos of broadcast artists are flashed on an upper section.

There are 6 different photographs

There are 6 different photographs used, symbolizing as many types of broadcast entertainment. Flanking this center piece are two side dis-



plays for Touch Tuning models. While the complete display is 14 ft. wide overall, sections may be used separately or diagonally.

FLASHING PANEL



Animated display to feature a Stewart-Warner Magic Keyboard console has been issued in four colors by the company. Large stars on the upper panel flash on and off each time the moving finger of the boy approaches a button on the keyboard.

Stewart-Warner has also readied an island background designed in unusual modernistic style, using two shades of green, white and cream, and displaying 10 table models.

PERSONAL NAME PLATES

* Two individually etched metal name plates are being given free to dealers to add sales punch to the merchandising of Transducer Corp.'s Bullet microphones. Because the dealer's

In "wind tunnel" tests by a leading

In wind tunnel tests by a teodrig midwestern university, the new Model 38 6-valt Wincharger com-

Model '38 6-valt Wincharger competed with other 6-volt rodio chorg:
ers and come off with TOP HONORS.
ers and come developed more curwincharger developed more current at 8, 10, 15 miles wind velocityrent at 8, 10, 15 miles wind velocityrent at 8, 10, 15 miles wind velocityrent at 8, 10, 15 miles of 70 miles,
At 4,5 miles Wincharger alone showed
at vibrotian. Even at 70 miles,
how the speed, Wincharger's new
horricone speed, Wincharger's new
horricone speed, wincharger's new
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customers genuinely like something with the personal angle, the company has agreed to etch five call letters on each side of the plate for patrons to be named by the dealer. Transducer, at 30 Rockefeller Plaza, New York, has issued a booklet on the subject.

"LUCKY 7" AND "LITTLE 3"

As a part of Emerson's big "Round Robin" cash prize contest, the firm has produced two store or window displays—the "Lucky 7" and the "Little 3." The first one demonstrates seven table models; the second sets off three bakelite models. They are available during the contest with two special groups of sets.

The contest, which opened Oct. 1 and will close Nov. 30, offers prizes to distributors and to dealers, as well as for the salesmen of both. Awards will be made for merchandising ideas. The competition comes at a time when Emerson national advertising is at a peak.

BULLETIN BOARD

A new board for display in the distributor's store has been issued by Standard Transformer Corp., 850 Blackhawk St., Chicago. It is designed that the displayed literature will be changed monthly; this material on Stancor will be issued regularly.

LETTERHEADS FOR SOUND MEN



* A new aid to PA men is a series of letterheads lithographed in color and imprinted with the dealer's name, address and phone number. The Amperite Co., 561 Broadway, New York City, offers them in three different styles, in an effort to help sound men improve their business personalities.

Amperite is also busy issuing window decals and displays as merchandising aids for PA specialists.

SUPREME POSTER

★ A new window poster 13" by 18" has been released by Supreme Instruments Corp., Greenwood, Miss., to all new users of Supreme test instruments. Full details on the poster and on the new 1938 line will be sent those writing to Greenwood.



tor. With a quick source of supply they can more profitably push the sale of Winchargers and battery radios, for they can pick-up Winchargers at the same time they get their battery radios...can often have a Wincharger shipped with a battery radio for no extra freight cost. With Winchargers readily available, dealers can deliver them to their customers at the same time they deliver their radio, thus avoiding the delay

DEALERS are enthusiastic with this new plan which gives them quick delivery on Winchargers. DIS-TRIBUTORS are contacting their dealers NOW in order to anticipate their orders and have an adequate stock of Winchargers on hand.

DISTRIBUTORS - If you are not familiar with Wincharger's new PROFIT PLAN for DISTRIBU-TORS write or wire Dept. RT for complete details.

WINCHARGER CORPORATION, SIOUX CITY, IOWA

World's Largest Makers of Wind-Electric Equipment

SERVICE EQUIPMENT CARRYING CASE

* Featured as a dealer help by Arcturus Radio Tube Co., Newark, N. J., is a new professional service kit with space for a complete set of parts, tubes, tools, etc. In the design of the case, Arcturus has emphasized compactness, convenience, and durability; there is a removable tray and a hinged side. Servicemen get the cases from Arcturus distributors.

ST. NICHOLAS DISPLAYS

★ "Timely touched with a head of old St. Nicholas," new displays for the Kadette models called Classics, Clockettes, Travel sets and Jewels, have been produced by International Radio Corp., Ann Arbor, Mich.

The new displays accent the unusual appearance of the models, as well as the popular prices, and are released as a rart of Kadette's promotion of the sets as gifts.

STREAMER PLUS DISCS

★ A new display lithographed in colors is being distributed to radio service dealers by Ken-Rad jobbers. It tells radio set owners what service, including the testing of tubes, is available from the dealer. It consists of a 30 x 10 streamer and 5 discs 11" in diameter.

DISPLAY TREE



★ A 4-ft. Santa Claus display for window, counter or floor has been issued by Burgess Battery Co., Freeport, Ill. Colorfully lithographed, it has room for 16 actual Christmas tree lights, and real gifts may be attached to the tree.

COLORED CARD

★ A neatly colored display card which is mainly circular in design has been released by Hytron Corp., Salem, Mass. Planned to accent uniform quality in Hytron tubes, the new eyecatcher is suited for window or counter use.

RADIO FOTO LOG

★ A booklet having 132 dramatic pictures of broadcast artists has been issued by National Union Radio Corp., 570 Lexington Ave., New York City, under the title, "Radio Foto Log." Treatment of the pictures has unusual variety and interest, and general dope of interest to the listener has been included. For distribution to customers and prospects, the booklet is available to dealers and servicemen through National Union distributors.

COLORED DECAL

* As a part of an extensive jobbercooperation program being undertaken by Standard Transformer Corp., the company has issued a colored decalcomania for use by Stancor agents. The item is designed for window or door display and provides eye-catching identification for the firm's distributors.

GADGETS IN FULL VIEW

★ Special compact combination counter and wall display stand has been announced by Radio & Technical Publishing Co., 45 Astor Place, New York City. It has room for six of Ghirardi's home-radio gadgets and six of his auto-radio gadgets. Design of the display keeps the merchandise in full view even after some items have been sold and removed. Dealers buying fixed amounts get the display free.

IMPROVED UP-TO-THE-MINUTE 1937-38 TUBE TESTER



Only Sorthis TUBE TESTER

Positively Checks All Type Radio Tubes According to Latest Recommendation of Tube Engineers.

- Has Line Voltage Adjustment
- Has Leakage and Short Test
- Uses Triplett Direct Reading Instrument (GOOD-BAD Scale)

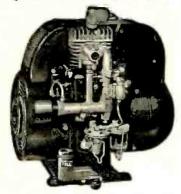
Five flush type sockets provide for all tubes. The tester operation is very simple and indicates condition of the tube for dealer and customer on Direct Reading (GOOD-BAD) colored scale of Triplett instrument. Will also test for inter-element shorts and leakages. Complete in attractive, sturdy, quartered-oak case. Sloping panel of silver and black. Suitable for portable or counter use.

Model 431 same as 430 except has Readrite (GOOD-BAD) Meter

A MODIFIED EMISSION TYPE TESTER . . . APPROVED CIRCUIT

ONAN ALTERNATING CURRENT PLANTS

operate AC RADIO, PUBLIC ADDRESS, SOUND CAR and MOTION PICTURE EQUIPMENT



These PLANTS supply electricity for Domestic and Commercial places where current is not available. Op-Water System, Refrigerator, Household Appliances.

SIZES TO SHIT EVERY PURPOSE

Operate on Gasoline, Gas or Distillate. Sizes 350 to 50,000 watts, \$110 and up. Also 6, 12. 32 and 110 volt, DC Models. All Models furnished complete, ready to run. Write for

D. W. ONAN & SONS 579 Royalston Ave. Minneapolis, Minn.

No Scratch!



Electric razors which do not scratch the face may make scratchy, crackling sounds in your radio and those of your neighbors for several hundred yards about! This electrical interference may be stopped at the razor's power outlet with a CON-TINENTAL Carbon FO1DH unit, List, \$1.00

Squawk!

And if your neighbor's razor causes interference, install a CONTINENTAL Carbon RO1DH Filtemoys unit at your radio for relief. Sell a Fisternoys unit on every service call! Send 10c in stamps for Handy Pocket Data on Radio Interference Elimination.



13910 LORAIN AVENUE, CLEVELAND, OHIO or Toronto, Ontario, Canada



NOT in years has there been such a heavy demand for wire in connection with the Serviceman's business. You have noticed it-we have noticed it.

With Public Address going like a prairie blaze and Radio a seething hotbed of activity which promises to be sustained, you will be needing GOOD WIRE.

CORWICO Wires are scientifically produced to do their job 100%. Antenna Systems, P-A Cables, Hookup Wires—"made by engineers for engineers." Use CORWICO on your next





Eliminates "Man-Made" Static on Broadcast as Well as on Shortwave Bands

Licensed by Amy, Aceves & King, engineered with traditional CORWICO care, this masterly aerial system fits every set and every location. Filters out nuisance noises caused by electrical devices. Improves reception generally-widely endorsed by Service men.

No. 14 (illustrated above)

For broadcast and shortwave frequencies, designed to eliminate "man-made" static and afford better reception. 2 to 6 sets can be operated at the same time with an additional lower transformer for each added unit. Other "Noise-Master" units available. WRITE FOR INFORMATION.

CORNISH WIRE CO., Inc.

30 CHURCH STREET

NEW YORK CITY

CORWICO Wire Catalog available to Service men. Distribution is exclusively through jobbers

DOPE ON DISTRIBUTORS

Announced for Dec. 1 and 2, a Radio and Electrical Show and Open House will be sponsored in Philadelphia by jobbers' Radio Electric Service Co. The event is set for the company's main store at 7th and Arch Streets, and is announced as "The New York Trade Show brought to Philadelphia." Participating manufacturers include RCA, Cornell Dubilier, International Resistance, Supreme, Emerson, Hammarlund, Meissner, JFD, Presto, Simpson, American Hardware, Burgess, Philco, Weston, Bogen, Amperite, National

Union, CRL, Belden, Shure, Yaxley-Mallory, Thordarson, Triplett, Webster Chicago, Hallicrafters, John Rider, Astatic, Sprague, Jensen, Eby, Thor and Universal appliances.

* Announced as distributors for Fada in the state of Wisconsin is Radio Parts, Inc., 538 W. State St., Milwaukee, Wis. Charles Brown is head of the firm and the Fada district manager in the area is J. A. Keim. Radio Parts has a branch at Madison, Wis., and has already begun a series of lively dealer showings.

★ John J. Crider, for the past 8 years a special sales representative for Cooper-Louisville Co., the Louisville, Ky., jobbers for Crosley, has been elected vice-president and director of the firm.

★ Warren Electric Co., Sioux City, Iowa, has been appointed dis-tributor for Stromberg-Carlson radio to service dealers in northwest Iowa and northern and eastern Nebraska.

* Krich Radisco, the Newark, N. J., distributors for RCA and the RCA Mfg. Co., were recently joint hosts to 80 dealers from Newark. The guests were taken on a tour of the Camden, N. J., RCA plants and were entertained at a luncheon. On the program were the RCA execs Fred Wilson, Lou Sullivan, David J. Finn and Lou Roth; Paul Krich, the Krich-Radisco sales manager, also made a short address.

* Appliance Sales Co., the Wichita, Kan., distributors for Crosley, were recent hosts to 250 dealers along with the Crosley Radio Corp. Jack Hennigh, appliance sales manager, arranged the meeting with these Crosley execs attending: John J. Hope, W. T. White, Richard O'Connor and H. A. Armbright.

* At H. A. McRae & Co., Inc., the Stewart-Warner jobbers of Troy, N. Y., "Rudy" Browd has been named general manager and vice-president. For the past several years, Mr. Browd has been sales manager for McRae. P. C. Ford is president. The company is now travelling 5 salesmen in its automotive dept. and 4 in the appliance dept.

* Sam M. Harper, 53 Park Place, New York City, has been appointed representative for The Turner Co. in New York City, Pennsylvania, Delaware, Maryland, Washington D. C. and New York City. ington, D. C., and New Jersey. Turner's, of Cedar Rapids, Iowa, are makers of sound equipment and crystal mikes.

★ Unusual advertising stunt recently accompanied the announcement of Lawrence Furniture Co. as New Orleans jobbers for Kadette. Under the direction of Jimmy Woods, Southern division sales manager for International Radio Corp., a radio ad appeared on every page of local newspapers for three successive days.

* Kierulff & Co., 1835 S. Flower St., Los Angeles, distributors for Admiral, have just doubled their floor Show rooms have been annexed in order to handle visiting dealers, who, according to Charley Kierulff, manager, are genuinely enthusiastic about the line.

Ross Siragusa, president of Continental Radio & Television Corp., Chicago, spent a recent week in New York City contacting Admiral dealers and distributors.

At Crosley Distributing Co., Chicago, James Cunningham has been added to the wholesale sales force.

The SELLING SENSATION of 1938

FOUR MORE MODELS ADDED TO THE GREATEST LINE IN GREBE HISTORY - ALL WITH



INSTANTANEOUS TUNING

PRESS A BUTTON . . . PRESTO! . . . THERE'S YOUR STATION!



MODEL 782 I-

tube AC.DC Su-perheterodyne

American, For-

elgn, Amateur and Police. Console

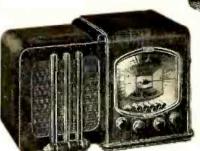
cabinet of selected walnut veneers with graceful mod-

ern overlay con-struction and con-

trasting inlays hand rubbed to piano finish. 10" Super Dynamic Speaker, Dimen-

sions 40" x 24" x

Sell GREBE. That's the advice of men who know automatic tuning systems. After years of research. Grebe gives you press-a-button tuning in its simplest and most reliable form, climaxing many years of dependable manufacturing. And, in cabinet work and dials, your customers will be awed by their sheer beauty.



MODEL 782 T-7 tube AC-DC Superheterodyne American, Foreign. Amateur and Police. Exquisite up. right cabinet of beautifully grained walnut with contrasting inlays. 8" Super Dynamic Speaker. Dimensions 191/2" x 151/2" x 93/4".

GREBE

119 FOURTH AVE.

NEW YORK, N. Y.

MODEL 762 L—7 tube AC-DC Superheterodyne American, Foreign, Amateur and Police. Ultra modern cabinet of rich walnut, artistic and distinctive—beautifully finished. Special $6\frac{1}{2}$ ° P.M. Dynamic speaker gives superb tone. Dimensions $16\frac{5}{2}$ ° x $10\frac{3}{4}$ ° x $8\frac{1}{4}$ °.

MODEL 782 L—7 tube AC-DC Superheterodyne American, Foreign, Amateur and Police broadcasts. Modern hand rubbed cabinet of choice walnut 8" Super Dynamic Speaker. Dimensions $21/2" \times 11/4" \times 9/2"$.

Dealers!

Give YOURSELF a Merry Christmas. Wire or write for the complete Grebe proposition. You'll have no regrets



HAS EXCELLED IN QUALITY FOR 26 YEARS

- ★ O. W. Githens, president of Universal Camera Corp., makers of Univex cameras and projectors, has announced the most extensive pre-Christmas ad campaign in the history of the firm. National magazines, newspapers, and a series of displays and booklets are a part of the promotion. Raymond Spector is advertising counsel for the company.
- * Grebe Mfg. Co., 119 Fourth Ave., New York City, are now represented in the Atlantic seaboard states from eastern Pennsylvania to Alabama and Tennessee by the Morris F. Taylor organization with head-quarters at Silver Springs, Md. Associated with Mr. Taylor in selling the line are C. H. Drury, Jacksonville, Fla.; A. S. Hardy, Atlanta, Ga.; W. F. Turner, Winston-Salem, N. C.; L. D. Lowery, Philadelphia, Pa.; and R. A. Kitchen, Baltimore, Md.
- ★ General sales manager Charles Shapiro of Howard Radio Co. announces the appointment of Springfield Elec. Co. of Springfield, Mass., as exclusive distributor in sections of Vermont and Massachusetts.
- * New technical representative in the Chicago area for the Allen B. DuMont Laboratories, Inc., is Rowe Radio Research Laboratory Co., 1103 Bryn Mawr Ave. Harry C. Rowe, Jr., heads the firm.
- ★ J. P. Quam, president of the Quam-Nichols Co., Chicago, Ill., loud speaker manufacturer, has returned after a successful trip to the Pacific Coast. "Jim" found business very satisfactory in the Coast markets, and visited the trade with Carl A. Stone and O. A. Huber, the company's representatives in Los Angeles and San Francisco, respectively. Right now Jim is visiting the Middle West manufacturers with Ivan Picard, Q-N sales reresentative from the factory.
- ★ Continental Radio & Television Corp. advises that their new district manager in New England for Admiral is James Hayes. Headquarters will be in Boston, Mass.



Detrola radio and refrigeration has a new district manager in Denver, Colo. —Earl F. Bryant.



Feature Something Everybody Wants!

Santa Claus knows what he's talking about! Here's the movie camera that millions want and the only one everybody can afford! They've been hearing about it all year! Now they'll be reading about it in the largest and most dynamic advertising campaign ever put behind any movie camera!

CASH IN!

Make this the biggest Xmas you ever had by cashing in on this unparalleled promotional opportunity! Tie up with the sensational campaign in 12 magazines and 25 newspapers. Write today for free displays, mats, leaflets and electros.

DON'T DELAY!

Remember, you can't sell merchandise if you don't have it. Because of the unprecedented demand, it will be impossible to guarantee shipments unless you order immediately. Be smart—this Xmas make your store UniveX headquarters. Universal Camera Corporation (World's Largest Manufacturers of Movie Cameras), New York... Chicago... Hollywood.



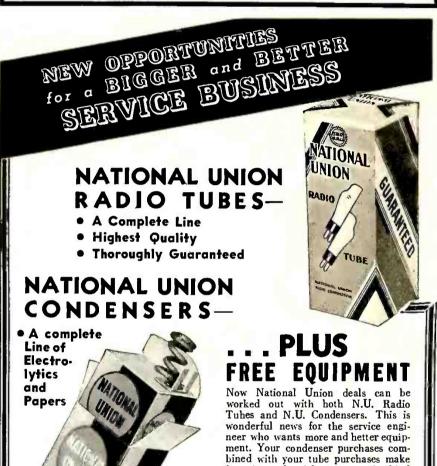




Converts Any Superheterodyne To An Automatic Tuner Model

Make a "1938" Automatic Tuner Model out of every old or tunerless radio in your stock. Selectroma-tic doubles your profits on new sets and moves your old stock. Send for literature at once.

PACIFIC RADIO CORPORATION 844 W. ADAMS ST. CHICAGO, ILL.



it easier and quicker to own the kind of equipment you want. National Union has constantly put the latest advances in scientific equipment as well as modern selling aids within Highest

Quality Thoroughly Guaranteed

> ask your johher. NATIONAL UNION RADIO CORP. RT1137 570 Lexington Avenue, New York City

reach of the service dealer. The National Union deal calls for a

dealer deposit which is rehated when

the purchase of the required amount

of tuhes and condensers has heen made. Thousands of completed deals. Every dealer should investigate. Just

☐I am interested in obtaining complete information on your proposition.

Name.	•	•	•		•	•	•	•	•	•	•		•	•	•	•	•	٠	٠		•	•	•	•		•	•	•	•	
Addres	S		•			•	4	•	•	•		•			•	•		•	•	•	•	•	•	•	•	•	•	•		

City State

THE ROAD TO BETTER BUSINESS Full guorontee on 4, N.U. jobber stocks highest quality ore complete...No rodio tubes. hunting for odd

Cut price business licited. 3. Price Protection.

5. Timely business building oids.

types.

* A meeting recently held for dealers of the Monangahela West Penn organization, Stromberg distributors of Fairmont, W. Va., was led by Lee McCanne of that company. Other Stromberg-Carlson representatives present were William Fraser and J. E. McCauley.

- First prize winners in Philco's national contest among distributors on merchandising Double X models have been announced: Group 1, Philos Radio & Television Corp. of New York; Group 2, Beaucaire, Inc., Rochester, N. Y.; Group 3, The Mathes Co., Fort Worth, Tex.; Group 4, Schmiers Radio Shop, Rock Island, Ill. Silver plaques presented by Philco president Larry E. Gubb, celebration dinners, and gold watches are presented to group winners.
- Bruno-New York, Inc., the New York RCA distributor, was a first prize winner in the national electric tuning display contest. Award was based on the number of exclusive RCA windows in any given area; Bruno-New York had more than 250 special ones in its territory. Dealer winners were F. E. Weale & Sons, Middletown; Michaels Bros., Brooklyn; Liberty Music Shops, New York City; Fordham Radio Co., Jackson Heights; and John J. Shaneck, Brony.
- Distributors report widespread satisfaction with the use of Stewart-Warner's 17-foot radio-and-refrigerator display coaches. Results of the coach's travels come under these heads (1) Jobbers contact more dealers (2) Dealers don't have to travel to far-away distributing centers (3) It gives the dealer local prestige (4) It attracts crowds and contacts consumers for the dealer.
- * Burstein-Applebee Co., distributors of parts, supplies and equip-ment at 1012 McGee St., St. Louis, Mo., have issued a new catalog of 164 pages covering radio, electrical, refrigeration and public address.
- ★ Reader's Wholesale Distributors, the Crosley jobbers of Houston, Tex., have moved into a new home at 1811 Ruiz St.—larger showrooms and improved facilities throughout. Hymen Reader, president, expects to double business next year, is enthusiastic about the recently announced Prestotune models.
- Standard Transformer Corp. has announced the appointment of H. S. Roes, 2004 Grand Ave., Kansas City, Mo., as a new representative to cover western Missouri, Kansas and Fort Smith, Ark. Also, Roye Sales Agency of New York City has been granted an extended territory to in-clude Philadelphia, Delaware, Mary-land, New Jersey and Washington, These appointments replace Stancor's former affiliations in those



Sales manager Harry Kalker of Sprague, left, has a parts huddle with Thomas H. Brown, distributor of New Haven, New London and Waterbury, Conn.

- * Radio Specialties Co., Los Angeles, reports Chas. G. Mackey as a new member of its sales force to handle Hollywood territory.
- ★ The Arnold Co. of Richmond, Va., has named R. E. Chase to handle N. C. territory. Ed. Thornbury (W3GPV) has also been added to the order dept. and amateur sales.
- * Maurice Raphael, general sales manager for Grebe Mfg. Co., has announced that E. B. Latham & Co., 250 Fourth Ave., New York City, will distribute the Grebe line in New York, Long Island, and Westchester. Latham firm, itself 36 years old, is one of the pioneer jobbers for Grebe. Re-appearance of this company as a Grebe jobber is therefore a reunion of radio veterans, as Mr. Raphael has represented Grebe since 1919.
- ★ Automobile Equipment Co., the Arvin jobbers of Detroit, Mich., recently held a dealer meeting to honor 1938 lines. Some 656 dealers attended the big affair.
- * Specialty Distributors, recently moved to their new location at 937-45 Fort Wayne Ave., Indianapolis, Ind., have been appointed distributors for Crosley products in the Indianapolis territory. Paul D. Cave is owner and manager.
- * Billings Wholesale Radio, Fresno, Calif., have just modernized their showrooms and plan additional expansion. Now 14 years old, the firm is the new central California distributors for Packard-Bell radios, and plans 'the most modern service dept. in the area."



Congratulations go from Maurice Raphael, right, of Grebe Radio, to L. E. Latham of E. B. Latham & Co., on latter's appointment as Grebe jobber.



Get the jump on Competition

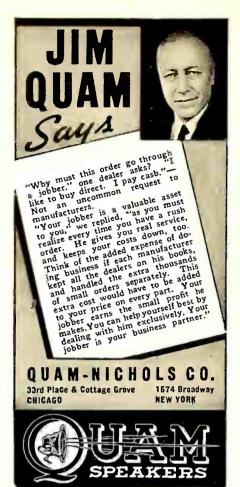
Just try to find a wind-electric plant that packs the sales appeal of Ruralite. Study the outstanding features of this amazing machine and you will readily see why it sells easier, lasts longer and performs better than any other.

Ruralite engineers were the first to build a powerful 1000-watt 32-volt charger, the machine both dealers and consumers have been waiting for. Its unusually high efficiency and economy in operation are marvels to all who see it perform.

The Ruralite offers Triple Action, "Slip The Wind" Governing Principle, relieving the unit of up to 70% of the wear and tear to which the ordinary charger is subject—Over size and More Efficient Generator—Larger Turntable Bearings—Quick Starting Propeller. Eight Ball Bearings, all grease sealed.

Increase your year's profits with Ruralite, truly a selling sensation. Exclusive territory franchises. Some good territory left, but going fast. Write today for Free Literature.

RURALITE ENG. CO. 2700 HAWKEYE DRIVE, DEPT. RIS SIOUX CITY, IOWA





ON THE TRADE TICKER



Here's a Simpson Electric Co. corner, including, left to right, Arthur H. Baier, Cleveland, Ohio; Ray Simpson, president; and G. H. Koch, sales manager.

- ★ Engineering department of Clarostat Mfg. Co., Inc., 285-7 N. Sixth St., Brooklyn, N. Y., has been expanded. Also more equipment has been added to handle the bigger research program undertaken by the company.
- ★ Miles Reproducer Co., Inc., now occupy new and larger quarters at 812 Broadway, New York City. Expansion announcement says that "we are equipped to give our dealers prompt and most efficient service on any and all of their sound requirements."
- ★ Cincinnati Electrical Association recently elected officers: Matt Williams, Crosley Radio Corp., president; Williard B. George, Johnson Electric Supply Co., vice-president; Stanley Isaac, Auto-Rad Supply Co., secretary; and A. H. Schrage, Fisher Aeschbach Co., treasurer.

* The Standard Transformer Corp., manufacturers of Stancor products, recently bought a four-story building at the north-west corner of Halsted and Blackhawk Streets, Chicago, which will give the company an increase of more than 50 per cent in manufacturing facilities over its present headquarters at 850 Blackhawk Street. J. J. (Jerry) Kahn, president of the company and a director of RMA, takes particular pleasure in this latest expansion of his company, because only a year and a half ago, Stancor doubled its manufacturing space in order to keep pace with its increasing business. The company increasing business. The company is only seven years old, but in this short space of time has attained an outstanding success that is reflected Looking in its constant growth. ahead to the future, Mr. Kahn also purchased two lots at the north end the new building which will be available for expansion purposes.

Install the Motors That Help Your Demand

YOU will find that music-wise customers constantly are pleased by the superior performance of General Industries Flyer Motors. Building up enthusiasm for the purchase of more radio-phonograph combinations—boosting your record demand. Install General Industries Flyer Motors. Dependable for high fidelity in playing all records, regardless of changing record drag. Self-Inducting, quiet, precision built for long trouble-free operation. Easily and quickly installed. Low cost.

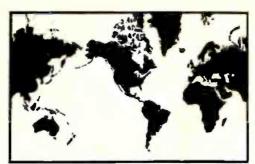


ORDER SAMPLES TO TEST



Types for AC, DC or universal AC-DC. Also two speeds can be furnished. In ordering, please specify exact voltage and frequency of current you use.

McGENERAL INDUSTRIES CO. 5758 Taylor Street . Elyria, Ohio



WORLD-WIDE RADIO SELLING JOB
CAN BE DONE in the DECEMBER ISSUE of
RADIO TODAY

THE ANNUAL EXPORT ISSUE AND BUYERS' GUIDE

The only ALL-RADIO medium covering the ALL-RADIO export market!

An issue surpassing all previous efforts of RADIO TODAY in the foreign field will give you access to the finest radio outlets in all countries with undivided interest on the subject of radio.

The Export Issue puts you in touch with foreign importing houses who are able to make the most of any radio marketing opportunity.

In each foreign country that is now a radio market, the circulation of the Export Issue will conform closely with the percentage of radio exports to that country. Thus, in the foreign field as well as at home, Radio Today's circulation is based upon buying power.

FOUR BIG SPECIAL FEATURES

plus all regular monthly services

- 1 FOREIGN BUYING POWER—5,000 super outlets in all countries that can be regarded as markets; eliminating those that are closed by war or other restrictions.
- 2 SPECIAL "PRODUCTS AND PERSONNEL" SECTION—listing names and addresses of all advertisers in this Export Issue, with their products and export managers; photographs of personnel will be used wherever available.
- 3 LITERATURE INSERT—listing the chief products of all advertisers in the issue. Three languages—French, Spanish and English. Detachable mailing card to facilitate inquiries.
- 4 BUYERS' GUIDE—listing in handy, convenient form every product made by RADIO TODAY advertisers.

22,000 KEY MEN OF THE RADIO 5,000 FOREIGN IMPORTERS, WHOLESALERS including 5,000 AND MANUFACTURERS * * * *

Closing Date, December 4



480 LEXINGTON AVENUE, NEW YORK



COMPLETE STOCKS READY FOR YOU

"B.A" serves the trade with every need in radio. Complete 160-page catalog of radio receivers, public address systems. parts, supplies and equipment is now available. You will find your favorite nationally known lines represented in this big book. "B.A" prompt service will please you-orders shipped same day they are received.

BURSTEIN-APPLEBEE CO. 1012-14 McGEE ST. -: KANSAS CITY, MO.

UP-TO-DATE CATALOG NOW AVAILABLE

TRADE FLASHES

GE TUBE PROGRAM

* To help dealers to get into the tube business with only a small investment, General Electric has announced a complete merchandising program. Charles T. Wandres, GE tube sales manager, points out that the set-up offers a comprehensive line of tubes, advertising, sales promotion aids and service equipment all in one deal. The company placed their re-ceiving tubes on the market 6 months

The line includes 21 metal types, 41 octal base glass types, and practically all the standard base glass tubes. Ads are running in 500 newspapers and in the biggest national magazines. Also GE has prepared a merchandiser cabinet, to allow the dealer to set up a tube dept. in a small space. This will hold 324 tubes in four compartments, has a tube checker on top, and a four-color sign. The merchandiser includes GE service notes, 1930-35, and a combination insulated screwdriver and socket wrench. All this is available at special prices to those placing orders for tubes.

- Pleasantaire Corp. has moved general offices to 1623 Connecticut Ave., Washington, D. U.
- The Cussin & Fern Co., Columbus, O., has announced the appointment of Fred Olholit as sales manager of the radio and appliance division of their chain.



Doing de luxe job as manager of Phyl Coe Mystery Contest, A. P. L'Hommedieu, Philco tube exec.

- * Reports received recently by George Russell, Sentinel sales manager from Pat Reed, factory representative in the West and South-West, indicate that the demand for six-volt sets is exceptionally active in this territory; these reports being based on Mr. Reed's activities with the dealers in the various trading centers. Recent visitors at the Sentinel executive offices were Jim McCormack, manager of the major appliance division of Marshall-Wells, Duluth, Minn., and D. R. Warren, Jr., of the Stratton-Warren Hardware Co., Memphis, Tenn.
- * H. J. Clippinger, vice president and general sales manager of the Continental Radio and Television Corp., Chicago, Ill., has announced the appointment of James New England with headquarters at Boston. Mr. Hayes has long been identified with this territory and has already started "the ball rolling."
- ★ Returning recently from 6 weeks in London, McMurdo Silver announced that he will desert his announced that he will desert his former direct-to-user sales policy, and that the products of McMurdo Silver Corp. will now be marketed through exclusive high class dealers, one to a city only. While in London, Mr. Silver organized an English branch, the British McMurdo Silver Co., Ltd., and had the Duke of Kent and Douglas Fairbanks, Sr., for the first customers. In the U.S. for the first customers. In the U.S., Masterpiece receivers are being mer-chandised in the "luxury" market by such retailers as Lyon & Healy, Chicago; Jenkins Music Co., Kansas City to Texas; Sherman Clay, West Coast; Aeolian Co., St. Louis; and Davega-City, New York City.
- ★ Shure Bros.' crystal record reproducer, called the "Balanced-Tracking Zephyr" received honorable mention in the Scientific Group in the recent Modern Plastics Competition conducted by Modern Plastics Maga-

We Take Pleasure in Announcing That McMURDO SILVER CORP.

is now merchandising its custom-built radios and radio phonographs through strictly and rigorously exclusive

MUSIC MERCHANTS AND THE FINER RADIO DEALERS

To those qualified for, and seriously desiring appointment as exclusive McMurdo Silver dealers for their cities or territories, full details will gladly be forwarded. McMURDO SILVER CORP., 2900 S, Michigan Ave. Chicago, U.S.A.

RECORDERS



Professional and portable models for acetate, aluminum or wax recording. Scientific. Rugged. Efficient. Modern. Discs, needles, styli and accessories.

(Recording Division)

MICROPHONES

New dynamic. An amazing sound development. Also crystals, carbons, condensers, velocity, ribbons, stands and accessories.

(Microphone Division)

Universal Microphone Co., Ltd. Inglewood, Calif., U.S. A. 424 Warren Lane



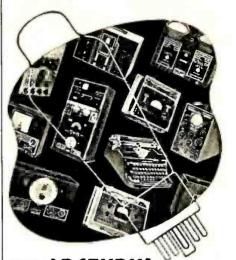


Round-up of Raytheon execs includes, left to right, D. F. Reed, asst. credit mgr.; Earl Wood, works mgr.; Arthur Akeroyd, NY office mgr.; Earl Dietrich, mgr. of distributor sales; R. M. "Bob" Campion, Texas and Louisiana dist. mgr.; and F. E. Anderson, assistant works manager.

- * Among the awards made in the second Modern Plastics Competition, sponsored by Modern Plastics magazine, is a second prize in the decorative group, given to the Kadette Clockette radio. International Radio Corp.'s winner is made of Fiberlon, and was designed by Carl W. Sundberg and Montgomery Ferar. Said International president Charles A. Verschoor in acknowledging the award, "We are particularly gratified to know that this is the only radio for which such an award has ever heen given." Mr. Verschoor also states that "we have a hack-log of orders for plastic models. Approaching the holidays, we would like to have some sort of inventory on Clockettes, Classics, Travel sets and Jewels, but the demand just won't permit. This Christmas is certainly proving a real holiday for molders of plastic cabinets."
- * Arthur Moss, secretary-treasurer of the Radio Parts Manufacturers National Trade Show, and Miss Marjorie Thalheimer of New Haven, Conn., were married at the Warwick Hotel in New York City, October 14. Returning to New York after two weeks in Havana, Mr. and Mrs. Moss will be at home to their friends at 5 W. 86th Street, New York City, about November 15. Mr. Moss is sales manager of Solar Mfg. Co., New York, and is widely known throughout the radio industry.
- ★ D. E. Johnson, formerly president of the Day-Rad Company, Dayton, Ohio, and who, for the past two years has been sales manager of Bendix Day-Rad, has purchased the Day-Rad division from the Bendix organization. Mr. Johnson has been in Chicago to check inventory, and to supervise the movement of equipment and apparatus to Dayton, where he will manufacture a complete line of test instruments and units, using the former trade name, Day-Rad. His new company, known as the Dayton Radio Corporation, will begin operation at once.
- ★ New manager of the RCA auto radio division is Walter H. Dyer, who has had more than 15 years experience as a sales executive in the auto radio field. H. D. Mysing will continue his auto radio activity in Detroit, acting as assistant to Mr. Dyer.
- * John Steupak has recently been appointed production superin-

- tendent of Ariston Mfg. Corp., Chicago, Ill. He was formerly with Peerless Reproducers, United Reproducers and recently with the speaker division of Continental Motors.
- * Powell Crosley III, for sometime one of the vice presidents of the Crosley Radio Corp., has heen put in complete charge of the radio set manufacturing division of the company. Vice-president J. P. Rogers is now in charge of the private hrand division which covers the sale of automobile radio sets to car manufacturers and special hrand radios and refrigerators to large users.
- ★ G. K. Throckmorton, who has been executive vice-president of RCA Mfg. Co. and operating head since the April retirement of E. T. Cunningham, has been elected president of the company. Mr. Throckmorton began his radio work in 1926, following 20 years of merchandising experience in the electrical field.
- ★ Chicago office of the Arcturus Radio Tube Co., Newark, N. J., is now located at new and larger quarters in Room 14112A, Merchandise Mart. Wm. "Bill" Johnson is in charge of the new lay-out, with F. P. Benson, R. S. Diethert and E. Englerth assisting.
- ★ Earl S. Dietrich, Raytheon's manager of distributor sales, has a new assistant, Art Akeroyd, recently named manager of the company's New York offices at 420 Lexington Ave. Akeroyd was formerly Raytheon's Ohio representative. Also promoted is Carl M. Lundquist of the Chicago office, now district sales manager for the Cleveland area.
- ★ Allen B. DuMont Labs, Inc., Upper Montclair, N. J., have purchased a factory building at 2 Main Ave., Passaic, N. J., and will move there early in 1938. Various DuMont departments will be expanded, the firm personnel will be doubled, and activity in television equipment will be increased.
- ★ The jury of awards of the National Industrial Advertising Association has again awarded first prize for the most effective advertising campaign to Fairbanks, Morse & Co. Credit goes to Harry Neal Banm, director of publicity and advertising for FM's industrial products, and to the advertising agency, Henri, Hurst & McDonald, Inc., Chicago, who planned the campaign.

RADIO'S Fairest DEAL RADIO'S Finest TUBE!



The ARCTURUS EQUIPMENT DEAL

Is Making Radio History!

Year after year ARCTURUS has led the way in tube engineering design and research . . .

Now ARCTURUS again pioneers by offering the fairest, easiest equipment deal in the history of radio.

The ARCTURUS offer includes a wide variety of highest quality standard equipment—tube and set testers, oscilloscopes, portable typewriters, etc. It gives you IMMEDIATE DELIVERY with only a small down payment... tube requirements are surprisingly low. ARCTURUS quality and ARCTURUS Dealer Helps actually help you sell. You profit two ways!

AND REMEMBER: You buy tubes at STANDARD LIST PRICES, less standard discounts. We haven't added one cent extra! Nothing could be fairer! You simply can't lose. Write for details.

Modern Service Demands Modern Equipment . . .

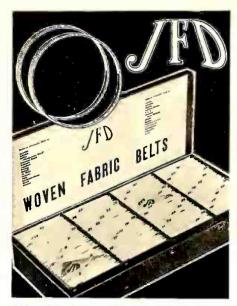
Let ARCTURUS help make yours the best equipped shop in town!



ARCTURUS RADIO TUBE CO., Newark, N. J.

ARCTURUS

INDEPENDENT TUBES FOR DEALERS WHO DO THEIR OWN INDEPENDENT THINKING



FABRIC

More than half a million modern radio sets now in use are equioped with Woven Fabric Dial Belts. . . Every one of these, sooner or later, will require replacement and this replacement will be repeated again and again.

The Fibre Board Display Kit illustrated contains 300 assorted radio dial belts exactly the same as originally used on Zenith, Emerson, Grunow, Sparton, Crosley, R.C.A., Fada, Stromberg-Carlson, Detrola, Silvertone, (Sears, Roebuck), Airline (Montgomery Ward), and every other popular radio set manufactured.

The attractive kit will last a lifetime and should be prominently displayed by every jobber and distributor. Send for complete detailed schedule.

J. F. D. MANUFACTURING CO. 4111 Ft. Hamiltan Pkway, Braaklyn, N. Y.



How Wincharger Corp. tells the 32-volt story to U. S. rural areas. Stanley E. Byther is shown with one of 9 outfits now whirling thru America.

Earl L. Hadley, who has been general advertising manager for the Rudolph Wurlitzer Co., has joined Henri, Hurst & McDonald, Inc., as account executive. This agency is launching a broader program of merchandising service for its client, Fairbanks, Morse & Co., home appliance division, Indianapolis. Hadley will serve on this account. Prior to his Wurlitzer connection, he was advertising manager of the Grigsby-Grunow Co., manufacturers of Majestic radios and refrigerators. His advertising background also includes nine years as advertising manager for the Cable Piano Company.

Philco division managers from all parts of U.S. met at a merchandising and advertising conference in Philadelphia recently to huddle over Christmas radio promotions.

DUBILIER ANNIVERSARY

The Dubilier Condenser Co., Ltd., of London, England, celebrating the 25th anniversary of its founding by William Dubilier, has presented to Mr. Dubilier an illuminated address expressing affection and gratitude to its founder. The address traces the engineering genius of Dubiller from his first work with the static capacitor, through his work in Russia, the founding of the American firm in 1910, and the beginning of the London company in 1912. The English organization, as well as the huge plants of the Cornell-Dubilier Electric Corp. at South Plainfield, N. J., remain under the close supervision of pioneer Dubilier.

STATEMENT OF THE OWNERSHIP, MANAGE-MENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

Of RADIO TODAY, published monthly at New York, N. Y. for, Oct. 1, 1937. State of New York, N. Y. County of New York, N. Y. Before me, a Notary Public in and for the State and county aforesaid, personally appeared Orestes H. Caldwell, who. bavins been duly sworn according to law, deposes and says that he is the Editor of RADIO TODAY and that the following is, to the best of bis knowledge and bellef, a true statement of the owner-ship, management (and if a dally paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Resulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Maurice Clements, 277 Park Avenue, New York, N. Y. Editor, Orestes H. Caldwell, Catrock Road, Cos Cob, Conn.

2. That the owner is: (If owned by a corporation-list name and addresses of the bright of the control of the cont

(Signed) Orestes H. Caldwell

B. M. Phillips
Notary Public. New York County
Sworn to and subscribed before me this 28th day of
September, 1937
Notary Public, Westchester County, Belle Mead Phillips County Clerk's No. 396
New York County Registrat's No. 8 P 227 (My commission expires March 30, 1938.)

RADIO HARDWARE

We carry in stack standard and many special items of radia hardware used by manufacturers of sets, radia parts, speakers, sound equipment, testing instruments, etc. Buyers of substantial quantities — manufacturers or jab--will save time and maney by writing far our Bulletin 50-available ta Manufacturers — Jabbers — Labarataries.



MACHINE SCREWS & NUTS TUBULAR RIVETS EYFLET LIIGS

SPADE LUGS

ETC.

SOLDERING LUGS BRASS WASHERS STEEL WASHERS LOCKWASHERS

ETC.

METAL TAPPING SCREWS SPEAKER MOUNTING SCREWS ESCUTCHEON SCREWS RUBBER GROMMETS

FEDERAL SALES CO., 26 S. JEFFERSON, CHICAGO

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, III. U.S.A. BOSTON-NEW YORK-PHILADELPHIA-CLEVELAND-MILWAUKEE-LOS ANGELES DETROIT-SEATTLE

INDEX • TO ADVERTISEMENTS

	age
AEROVOX CORP	54
AMPERITE CO	1
ARCTURUS RADIO TUBE CO	
BURSTEIN APPLEBEE CO	
CENTRALAB	
CLAROSTAT MFG. CO., INC	
COMMERCIAL CREDIT CORP	
CORNELL OURILLES CORP	61
CORNELL-OUBILIER CORP	65
CROSLEY RADIO CORP	6
CROWE NAME PLATE & MFG. CO	58
OETROLA RADIO CORPIV C	over
FAOA RAOIO & ELECTRIC CORPII C	over
FAIRBANKS, MORSE & CO2	
FEOERAL SALES CO	
GENERAL ELECTRIC CO	over
GENERAL INOUSTRIES CO., THE	70
GREBE MFG CO., INC	
HOWARO RADIO CO	
HYGRAOE SYLVANIA CORP	
INTERNATIONAL RADIO CORP	
INTERNATIONAL RESISTANCE CO	
JANETTE MFG. CO	74
J. F. O. MFG. CO	
KEN-RAO TUBE & LAMP CORP., INC	
LAUSON CO., THE	
MAJESTIC RADIO & TELEV. CORP	
NATIONAL CARBON CO., INC	
ONAN & SONS, O. W	60
PACIFIC RADIO CORP	
PHILCO RADIO & TELEV. CORP., SET DIV.	8
PHILCO RADIO & TELEV. CORP., TUBE DIV.	
PIONEER GEN-E-MOTOR CORP	
PRESTO RECORDING CORP	
QUAM-NICHOLS CO	70
RAOIO CORPORATION OF AMERICA36,	
RADIOTECHNIC LABORATORY, THE	
RAOOLEK	
RAYTHEON PRODUCTION CORP	33
11 12 13	44
READRITE METER WORKS	64
RECOTON CORP	
RIOER, JOHN F	
RURALITE ENGINEERING CO	
McMUROO SILVER CORP	
SIMPSON ELEC. CO	
SPRAGUE SPECIALTIES CO	
STANDARO TRANSFORMER CORP	
STEWART WARNER CORP	
TRIAO MFG. CO., INC	
TRIPLETT ELECTRICAL INSTRUMENT CORP.	S7
TUNG-SOL LAMP WORKS, INC	
UNITEO SCIENTIFIC LABS	
UNIVERSAL CAMERA CORP	
UNIVERSAL MICROPHONE CO., LTD UTAH RAOIO PRODUCTS CO	
WARO LEONARO ELECTRIC CO	
WHOLESALE RADIO SERVICE CO., INC	
WINCHARGER CORP	

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.



TRANSMITTING CAPACITORS

OIL-PAPER and MICA TYPES



TRANSOIL ... SOLAREX ... TRANSMICA

Write for complete catalog



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

POWER POWER LAUSON

SMALL LIGHT SYSTEMS, BATTERY CHARGERS, POWER UNITS, WASH MACHINES

Lauson Smoothflo motors are being used by the thousands in leading makes of small generator and hattery charging sets, because they have proven themselves to be reliable, trouble free, power plants.

Light weight . . . sturdy . . . economical in price and operation. ½ to 5 hp., 4-cycle, air ecoled, fly-ball governors hold speed uniform and assure smooth operation. Roller bearing crankshaft. Conveniently located factory service stations. 45 years of engine building experience assures dependable design.

Look for the Lanson name ongas-powered equipment. Write for details.

The Lauson Company
54 Michigan Street
New Holstein, Wis.





STANDARD 3" TUBE— Complete Visual Alignment



The Quality You Wish at the Price You Can Afford

All important features of better 3" Oscillographs—Adjustable Tube Mounting—Removable Calibrating Sercen—Two Sweep Circuits:—Flexible, wide range, linear variable from 3 cyc. to over 150,000 and 60-cycle sinusoidal for simplification of visual alignment. Amplifiers have flat response curve up into R.F. May be used with any frequency modulator signal generator for complete visual alignment without other apparatus.

Write for complete information about this and other HICKOK RADIO TESTING INSTRUMENTS

HICKOK ELECTRICAL INSTRUMENT CO.
10510 DUPONT AVE. CLEVELAND, OHIO



R. M. Karet of Utah Radio Products relaxes between sales drives.

ZENITH ADDS PROMOTION

* Continuing its master review of unusual promotional efforts currently being made by radio manufacturers, Radio Today presents herewith a summary from Zenith Radio Corp.

"Advertising plans for Zenith are of course very much larger this year than they were last," states Edgar G. Herrmann, advertising manager for the company.

"Plans include more evening radio programs on leading network stations, national advertisements in practically all the major magazines, and a widespread dealer cooperative campaign of broadcast, billboard and newspaper advertising through our exclusive distributors.

"Zenith continues steady monthly ads in nearly two-score farm publications. Another important promotion is our direct mail campaign—a series of mailings from the company to jobbers, from jobbers to dealers, and from dealers to the consumer.

"It would be a Herculean task for me to detail to you our many efforts in store backgrounds, window displays, posters, signs, and other dealer helps. This job is continuous with us, and this year the operation has been greatly increased.

"Zenith has again issued to its exclusive distributors a guarantee against mid-season new models, lower prices, cut-price and slaughter advertising. Dealers will be protected not only in words but in deed.

"Our advertising and promotion generally stresses the new arm chair models introduced in a major way by Commander McDonald, electric automatic tuning, and Robot Dial."



Just Right! ...

- ★ Remember, there's a CLAROSTAT exact-duplicate control and ballast replacement for every standard set.
- ★ These matched replacements insure proper mechanical and electrical characteristics. That means a good servicing job—promptly, satisfactorily, profitably.
- ★ CLAROSTAT provides the most extensive replacement data. And CLAROSTAT jobhers necessary units right from stock.

Free MANUAL . . .

Just Issued. Over 200 pages. Handy pocket size. Most extensive listings. Also other practical data. Yours for the asking.







The New 1938 Radolek Radio Profit Guide contains complete showings of Radio Repair Parts: every repair part for every receiver: Newest Radio Receivers in a complete price range; New 1938 models of Public Address Amplifers: outputs from 5 to 100 watts—Speakers, Microphones: Test Instruments, Technical Books, Special Tools, Leading Standard Brands! Everything you need in the Radio Business all at Lowest Prices, You save money at Radolek!



at Radoleki
Every item you get from Radolek is guaranteed. It must be right or we make it
right. Standard merchandise produced by
leading manufacturors with Badolek's guarantee added!
Everything in Badio gromptly when you

FASTEST SERVICE

antee added!

Everything in Radio promptly when you want it—and exactly what you want. Radolek's efficient organization insures you the fastest service in the Radio business 25.—000 servicemen tustomers depend on Radolek service and benefit by Radolek's LOWEST PRICES.

Send now for Radolek Radio Profit Guide. It will help you make money.

RADOLEK
601 W. Randolph, Chicago, Dept D-13 Send me the 1938 Radolek Radio Profit Guide FREE
Name.
Address Serviceman? Dealer? Experimenter?

Radio's Two Biggest Selling Months

Are Here

Make Them the Biggest **In Your Business**

WITH THESE TWO **SENSATIONAL**

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TOUCH TUNING MODELS

MODEL F-107

TOUCH TUNING CONTROL

MODEL F-96

G-E touch tuning-just press a button that's all-at a sensational, low price. The biggest radio dollar value in years, with an exceptional appeal to all buyers. Stocks now being rushed to your G-E Radio Distributor for immediate delivery.

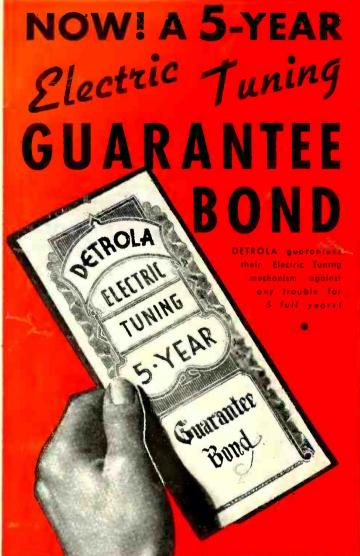
MODEL F-107

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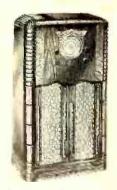
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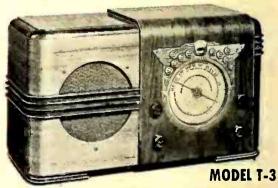
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