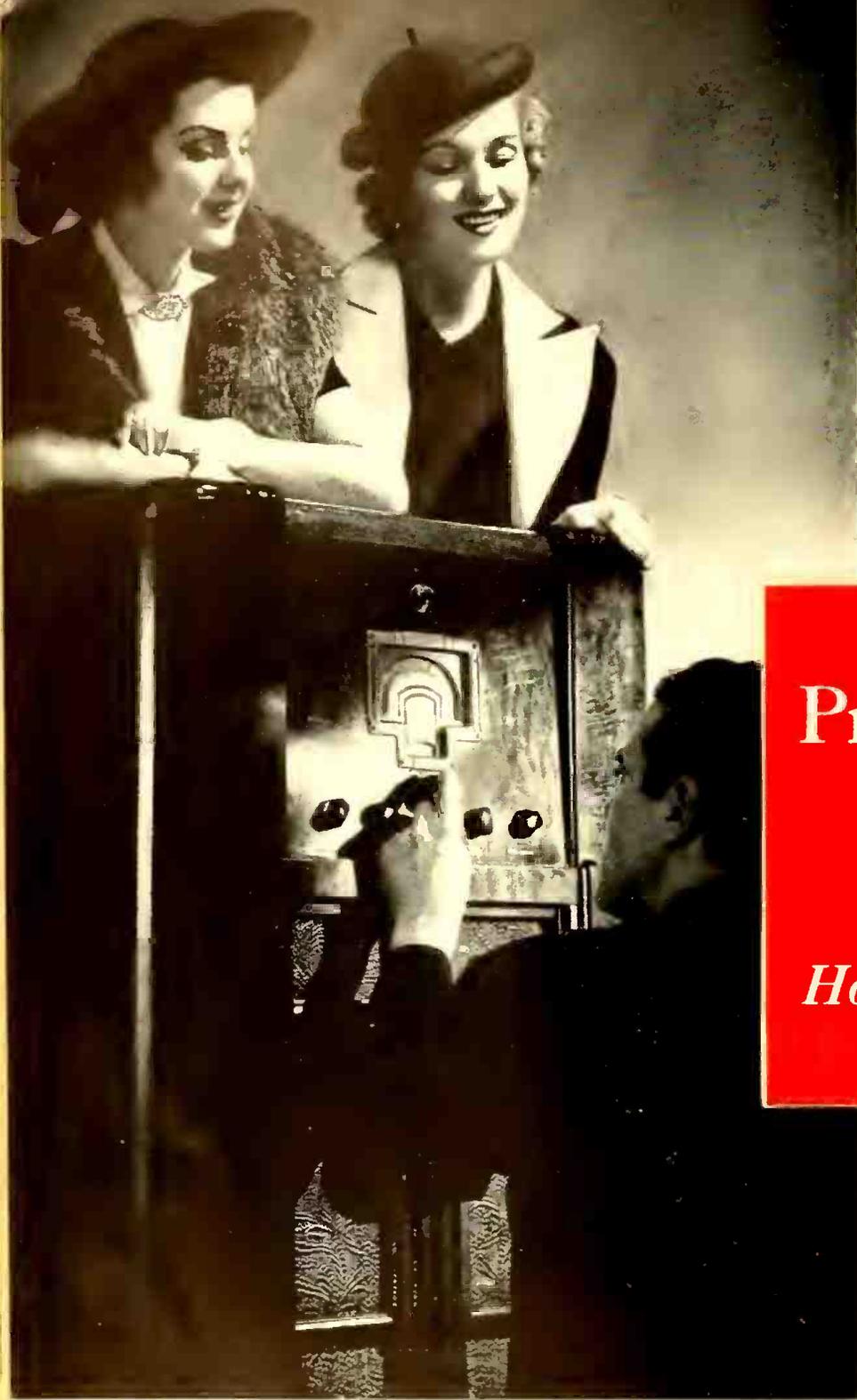


RADIO TODAY



SHOE-LEATHER — the Answer to
Summer Sales, see page 13. **MAY, 1937**



*"Why, that's wonderful, Mr. Smith!
How lucky to hit such a grand program."*

*"Not just lucky, Miss. A good dealer knows
his NBC stations and programs."*

Programs and Sets are O.K.

How's Your Demonstration?

National Broadcasting Company

A Radio Corporation of America Service

FIDDLING with the dials while the prospect burns is often fatal to the sale. Note how surely an outstanding radio dealer dials a station. And note his unerring choice of a program—one that charms the customer and meets his mood, exactly. This dealer doesn't get submerged in price discussions or competitive chatter. He knows NBC stations and programs, right around the clock! He sizes up a prospect and lets an NBC program help put the sale across. His demonstrations are on a par with both sets and programs, and better set sales prove it!

"Coloradio"

(BY FADA)

THE RADIO THAT MADE SALES HISTORY

• One year ago Fada announced the addition of "Coloradio" to their regular radio line. This announcement created no stir among the dealers because of previous unprofitable experiences with color. Little did they realize at that time that while color in radio was not new, "Coloradio" by Fada was decidedly new . . . new in the application of color . . . new in standards of performance . . . new in comparison of value.

• At the first showing of "Coloradio" far seeing radio dealers realized at once the amazing sales possibilities this new line offered. The gleaming modernistic cabinets of Bakelite and Beetle in Black, Walnut, Ivory and Chinese Red adorned with Gold and Chromium metal were glorious to behold. Fada had added another great contribution to the radio industry.

• The appeal of color is universal . . . it arouses the deepest emotions in both old and young . . . it has greater sales appeal because color is the dominant trend . . . it had performance appeal because "Coloradio" offered a new standard of excellence in performance . . . it had price appeal because no other small set line offered so much for so little. Fada had taken the small set radio out of the doldrums of monotony and gave it a new lease on life.

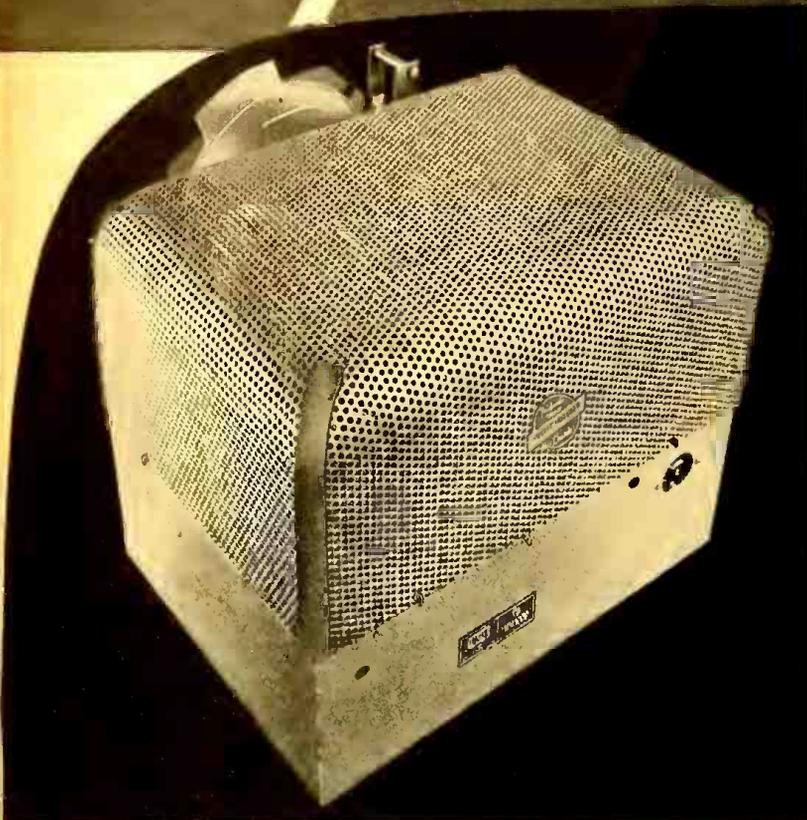
• Wherever it was displayed consumers likewise caught the allure of "Coloradio" as created by Fada. Sales skyrocketed to new highs . . . dealers were literally swamped by the demand . . . production was speeded up . . . extra molds were made . . . extra floor space added . . . extra labor employed to maintain production schedules with the increasing demand. The success of "Coloradio" was assured . . . Fada had given the radio industry another great sales stimulant.

The new "Coloradio" series for 1938 will soon be announced . . . it will far outstrip its predecessor in beauty of design, performance and value. It will feature AC, AC-DC and Battery Operated radios for the farm. It will offer the dealer greater sales possibilities than any other small set line. Regardless of the number of lines a dealer may feature he cannot afford to ignore the addition of "Coloradio" . . . the biggest small set line for 1938.

The New Fada Line for 1938 Will Include a Well Balanced Presentation of Compacts, Table Models and Consoles of Distinctive Designs in Beautiful Contrasting Woods and Featured in Every Price Range

FADA RADIO & ELECTRIC COMPANY, LONG ISLAND CITY, N. Y.

again it's **FA**

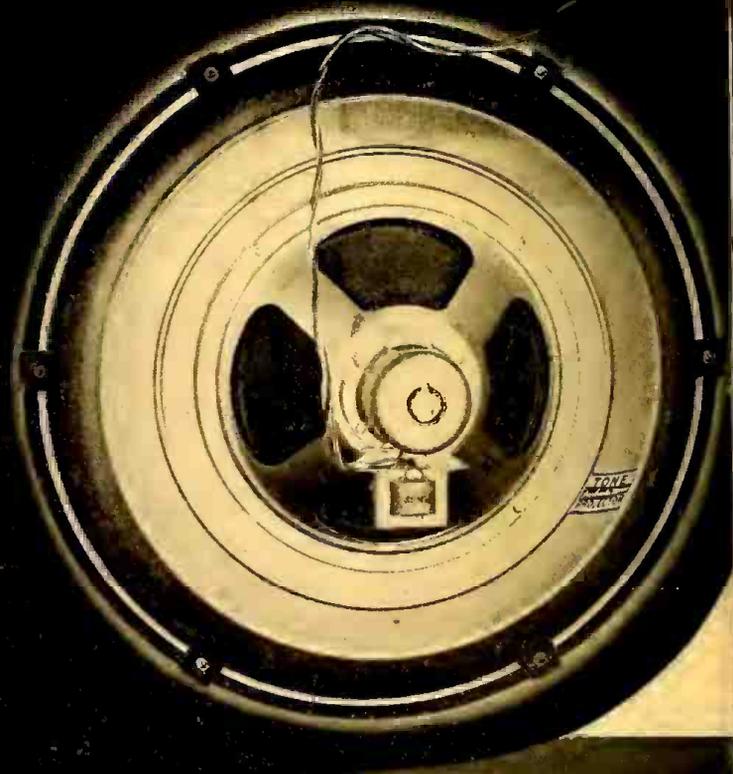


Turret Shielding

Introduced by Fairbanks-Morse, Turret Shielding has been an important factor in closing more sales per customer for Fairbanks-Morse dealers. Visual value—demonstrable performance—gets results.

Tone Projector

Another development by Fairbanks-Morse engineers. Like turret shielding, Tone Projector combines "eye-appeal" with apparent value. It also turns "shoppers" into buyers with less sales effort.



FAIRBANKS-MORSE 19

RBANKS-MORSE!

SINCE 1830 the name Fairbanks-Morse has stood for consistent quality and value. The 1937 line of Fairbanks-Morse Radio receivers upheld this tradition in every respect. This fact will be attested to by the men who sold them, and what is possibly more important, by those who bought them.

The new 1938 line will continue to uphold that tradition. It will retain, in improved form, both Turret Shielding and the Tone Projector, as important selling features.

Our engineers have seen to it that this new line will incorporate other new and desirable features that contribute to better performance and greater salability, in models that fill every important price bracket. The Fairbanks-Morse 1938 line leaves nothing to be desired in the way of selling features.

And there is a complete new farm line in 2- and 6-volt models that will rival the new AC line in beauty and performance.

There's plenty of profit to be made by Fairbanks-Morse Radio dealers—always will be—for we believe in protecting the dealer's investment for him. Why not see what this could mean to you, in your territory?

Your Fairbanks-Morse distributor is now attending the 1938 Radio Convention at the factory in Indianapolis, where these new models are being made, tested, and shipped to every part of the globe. He is in position to give you the whole story.

The deal is all "aboveboard," contains no red tape, mandatory requirements, or heavy financial investment. It will take only a few minutes to get the whole story—send in the coupon now.



FAIRBANKS, MORSE & CO.
Home Appliance Division
2060 Northwestern Ave.
Indianapolis, Ind.

Please send me complete information about the 1938 line of F-M Radios and the dealer franchise.

Name.....

Address.....

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

38 PLUS VALUE RADIO

IRC

REG. U.S. PAT. OFF.

Initiative—Resourcefulness—Cooperation
to advance the interests
of the industry

Metallized CONTROLS
... Now Available in
SPECIAL REPLACEMENT
TYPES

with
the
First and
Only

SILENT SPIRAL CONNECTOR

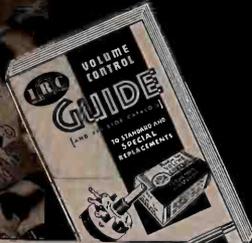
(Designated Guide with Prefix "S"—Patent Applied for)

"Because It's Positive—It's Positively Noiseless!"

For years, servicemen have been looking for better, quieter controls for those extremely critical duplicate replacement jobs that cannot be handled with standard types. Today, IRC makes such controls available—backed with all the well-known features of standard Metallized units PLUS the exclusive S-Finger Silent Element Contact PLUS the exclusive Silent Spiral Connector which is supplied on all of the new special replacement controls listing at \$1.30 and up (on standard types). These special controls are identified by the letter "S" preceding their part number in the IRC Guide. See them at your IRC jobber's today.

GET THIS NEW
GUIDE FREE!

Just off the press (27 pages) lists standard and special replacement types for practically every radio receiver. Includes handy control and resistance calculation data, complete Resistance Catalog, an indispensable aid for your jobber. For a free copy, write direct to:



IT ELIMINATES THE MOST
COMMON SOURCE OF
NOISE IN *Any* CONTROL

The outcome of two years of engineering development work, IRC brings you the outstanding control improvement in years—positive and continuous electrical connection between the center terminal and the adjustment arm. This Silent Spiral Connector spells complete elimination of sliding, metal-to-metal contact in the place where most control noises originate. It means that these new IRC Special Replacement Controls are unquestionably quietest, because they are the only controls having this feature.

The Silent Spiral Connector is made of special wire—sturdy and durable—constructed like a fine watch for a lifetime of the quietest service you can imagine.

NO SLIDE

NO FRICTION

NO NOISE

**Quietest! BECAUSE THEY'RE THE Only CONTROLS IN WHICH
SLIDING METAL-TO-METAL CONTACT HAS BEEN ELIMINATED**

INTERNATIONAL RESISTANCE COMPANY

401 NORTH BROAD STREET, PHILADELPHIA, PA.

Factories and Licenses: Canada . . . England . . . France . . . Germany . . . Italy . . . Denmark . . . Australia

MADE IN MORE SHAPES FOR MORE DIFFERENT APPLICATIONS THAN ANY OTHER MANUFACTURER IN THE WORLD



COMING FOR 1937-38

Another Great G-E "FIRST"



**TOUCH
TUNING!**

"TOUCH A BUTTON — THAT'S ALL"

A great exclusive feature—a great exclusive sales opportunity—and backed by the greatest advertising and promotion program we have ever sponsored.

GENERAL  ELECTRIC
RADIO

APPLIANCE AND MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONN.

The Easiest Tubes in the World to Sell!

Two hundred million sockets. Think of it! ALL of THEM must have new tubes, in the ordinary course of events. Millions need them now. Other millions in a short space of time.

And, don't forget—among these 200 million sockets, there are more Philco sockets than any other—by a tremendous margin.

In that simple fact you have the greatest tube-selling opportunity ever known in radio. The vast army of set owners who already use Philco Tubes, make Philco the easiest tube in the world to sell.

Remember, too, that millions of other sets also need new tubes, creating a demand that you can meet with greater satisfaction to the customer and greater profit to yourself—with Philco Tubes.

Ask your distributor for a copy of the new Philco Tube Brochure Catalog—showing sales helps that bring you more tube business.



PHILCO TUBES

THANKS FOR A BIG YEAR ... AND THERE'S A BIGGER ONE RIGHT AHEAD!

It's been a great year for Philco! So Philco wants to pay tribute to the enterprise, the energetic efforts, the consistent cooperation of the Philco dealers and distributors who made it possible for Philco to rule the radio roost for the seventh consecutive year!

And now . . . the time has come to think of a new season. What is Philco planning for 1938? What will Philco offer in addition to Automatic Tuning, High-Fidelity, the Foreign Tuning System . . . and the other great Philco features of 1937?

It's a little too early to spring the big news! But it is BIG news! And here's a tip!

**GET SET FOR THE GREATEST
OF ALL PHILCO YEARS!**



PHILCO RADIO & TELEVISION CORPORATION

©CIB 338764
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RADIO TODAY

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Copyright 1937
Caldwell-Clements, Inc.
480 Lexington Ave.
New York, N. Y.
Tel. PLaza 3-1340

Vol. III. No. 5

RADIO DEALERS AVERAGED 11.7% PROFIT

★ Questionnairng 5,000 retail radio dealers in its special survey of radio costs and profits, RADIO TODAY has received store operating statements covering nearly \$3,000,000 of retail radio sales made during 1936.

Analysis of these returns, presented in detail on following pages, show that the average of dealers' profits on radio sales was 11.7 per cent of total sales volume, with cost of merchandise running 58 per cent, and total operating costs averaging 30.3 per cent.

Radio sales for 1936 were reported 34 per cent ahead of the preceding year, and stock turnover averaged six and one-half times a year. Customers bought 32 per cent for cash; 15 per cent on credit account, and 53 per cent on installment plans.

Store operating costs averaged as follows, total sales equalling 100%:

Salary of owners	10.5%	
Employees	3.1%	
Rent	3.4%	
Advertising	2.3%	
Telephone, light, heat	2.4%	
Free servicing, installation	1.9%	
All other expenses	1.7%	
Total expenses		30.3%
Cost of merchandise		58.0%
Net profit		11.7%

This survey of retail selling costs and profits in radio by RADIO TODAY is the first which has been made, directed particularly at the radio trade, since similar radio surveys were made under the same direction five and ten years ago.

While valuable general surveys of all kinds of retail businesses are conducted annually by Dun & Bradstreet and others, these have sometimes led to conflicting results for radio when dollar volume of "service sales" is inadvertently added in with merchandise sales. In the RADIO TODAY survey, paid-servicing volume was kept entirely separate, and reported as an independent business operation, so that the above figures give a true picture of the radio-merchandise operation.

RADIO STORMS THE NEWSPAPERS

★ With one smash message or another, radio manufacturers finished the last year with interesting totals in radio advertising lineage run in newspapers. Media Records, Inc., reports these firms as leading newspaper advertisers, with lines run:

Crosley	53,259
Delco	7,438
General Electric	417,810
Grunow	428,518
Philco	2,071,238
RCA	559,146
Stewart-Warner	68,990
Westinghouse	24,030
Zenith	422,730

RADIO PRODUCTION BY STATES

★ A chart in our April number showed the relative percentages of Federal excise tax paid, by states, as an index to radio manufacturing by states. For brevity the chart was titled "Where the Radio Sets Are Made," but it should have been explained that the excise tax covers not only home radios but also radio tubes.

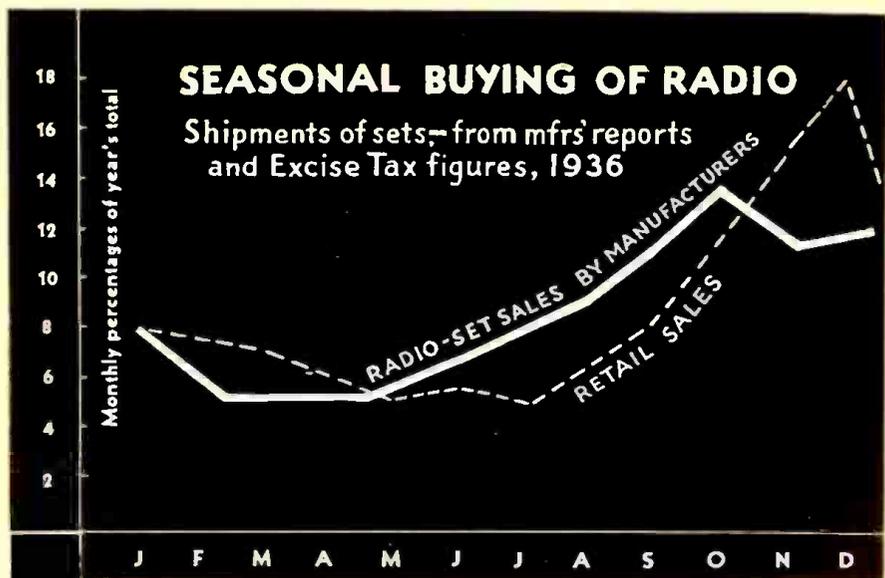
parts, etc., and phonographs and records, radio sets making up five-sixths of the volume. Automobile radios, however, are not taxed under the radio classification but as "automobile accessories," so that the auto-radio volume does not appear in the radio-tax percentages, thus accounting for some of the apparent discrepancies in the radio-tax figures by states.

LAME LISTENING

★ Receivers with one leg in the junk-yard have been counted, among 5,360 radio families, by Prof. L. M. McDermott, College of Commerce, De Paul University, Chicago. While investigating other angles, the professor discovered this about the age of sets in use among these families:

1 year old	20.6%
2 years old	20.3%
3 years old	18.7%
4 years old	14.7%
5 years old	11.2%
Over 5 years old	8.5%

Survey also revealed that 61% of the families had more than one set, and that radio was the first thing they wanted after a car and some insurance.



RADIO WEEK AT CHICAGO, JUNE 8-13

★ Radio manufacturers, distributors, dealers, servicemen, and sales representatives, are all due to concentrate on Chicago, the week of June 8, signalized by the triple feature of the RMA convention, National Parts Trade Show, and IRSM convention.

Hotel Stevens on Michigan Avenue will be the setting of the RMA and Show activities; with the RMA meeting Tuesday and Wednesday, followed by the Trade Show the rest of the week, including Sunday. The Sales Managers Club and "The Representatives" will also meet during the week, and many committee gatherings and lectures are scheduled. A Radio Show Special train will run from New York June 9.

The annual radio industry banquet, another "RMA cabaret" dinner for Association membership and guests, will be the event of Wednesday evening, June 9. The two days of the RMA annual convention will be packed with important business meetings. An unusually interesting program is being arranged by President Leslie F. Muter of the RMA and the convention committee headed by A. S. Wells of Chicago, chairman, and Paul V. Galvin, Peter L. Jensen and James S. Kuowson.

A large luncheon meeting Tuesday, June 8, combining the annual business meeting of RMA members, is a new feature of the RMA convention. Official RMA delegates, alteruates and guests will be tendered a com-



John S. Meck has been named president and general sales mgr. of the new Electronic Design Corp., Chicago.



N. P. Bloom has insisted on retiring from presidency of Adler-Royal.

plimentary luncheon by President Muter and directors of the Association.

The National Radio Parts Show will open Thursday, June 10. During the Show, meetings and discussions will be held in the auditorium of the Stevens, under auspices of the Institute of Radio Engineers, the American Radio Relay League, and the Institute of Radio Service Men.

PROPOSED RADIO TAX WOULD DEPRIVE RURAL LISTENERS

★ Proposal by Commissioner Payne of the FCC to tax broadcasting stations \$1 to \$3 per watt of transmitter power, has aroused wide opposition as depriving farmers and others living in rural communities, of their principal broadcasting entertainment.

For it is chiefly the high-power stations which can be heard in rural regions. Cut down their power by an excessive tax, and Congress would render useless millions of radio sets throughout the farms and rural sections of the nation. It is these isolated listeners on the farms, in lonely mountain cabins, on islands off the coast, to whom radio means most, for it is their sole source of entertainment. Thus the proposed radio-tax bill, sponsored by Commissioner

Payne and Representative Boylan, would act to confine radio to the cities, which already have a surplus of amusements—leaving farms and small towns without any radio entertainment whatever.

High power is service

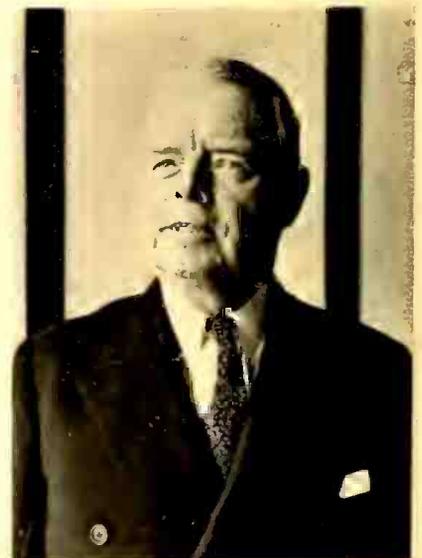
Operation of high-power broadcast stations has not been especially profitable, and hence the preference of many broadcasters is to limit their station powers to cover only the rich city markets and densely populated areas. To get station owners to reach out hundreds of miles and cover farming and sparsely settled territories, means a public service to isolated listeners—performed at great expense and with very little return to the broadcaster.

SUMMER SUMMARY

★ Flying around in a revised condition are a good many facts on the use of radio this summer. Checked for 1937, one of the set counts has been issued by CBS in a booklet which makes the season quite a glad affair.

Extra receivers to take to summer homes, reports Columbia, will add up to 4,000,000. U. S. family-hours of listening each summer day in 1937 is set at 77,000,000. Conclusions are also that auto radio has a new significance and that the total persons without some sort of set this summer will be slim.

Broadcasters—both NBC and CBS—promise "more and brighter summer programs in 1937 than ever before."



Busy as a new tube president would be, C. A. Earl of Arcturus, well known in radio for many years.



C. P. Cushway, Thordarson's gen'l mgr., maps sales with H. O. Johnson, adv. mgr.

ALL ABOUT SOUND SYSTEMS, PAGES 40-48

★ The most complete information on "sound" systems, public-address, and amplifier equipment ever gathered together, appears on following pages of this issue of *RADIO TODAY*, for the benefit of readers.

Compiled by Technical Editor Vinton K. Ulrich, these complete specifications of principal sound lines on the American market, give full details of models, prices, wattage, speakers, microphones, and accessories.

BOSCH DOMESTIC SETS DISCONTINUED

★ Notifying its distributors of its withdrawal from the production of domestic Bosch-trade-marked home and auto radio receivers, the United American Bosch Corporation of Springfield, Mass., one of the oldest radio manufacturers in the business, has announced its intention to concentrate its facilities on export, police, and private-brand sets, in addition to its manifold operations in non-radio fields, including magnetos, automobile ignition, Diesel-engine accessories, and gas water-heaters.

"In our radio division," explains Roy Davey, sales manager, "we have experienced a very large increase in our export volume and at the same time the volume of our private-brand business has developed to the point where, with the increasing demand for factory facilities from our other

divisions, we no longer have available manufacturing space which will permit the continuation of our own domestic trade-marked production of home and car receivers. Our withdrawal from our own domestic trade-marked production of home and car receivers permits us to concentrate on and to continue more aggressively our export, police and private-brand radio activities.

"Because of the substantial increase in both export and private-brand lines, it becomes impossible for us to serve our distributors with a large enough amount of American-Bosch trade-marked radio to make the sales of such sets profitable to our distributors or to us.

"We have in the case of most of our distributors had a long and pleasant relationship and it is with deep regret that this radio relationship must be terminated."

RADIO DATES AHEAD

May 23-25—National Radio Service Association Convention, Dallas, Tex.

May 15-31—Radio and Television International Exposition, Paris, France.

June 8-10—Thirteenth Annual Convention, RMA.

June 10-13—National Radio Parts Trade Show, Fifth Annual Convention, IRSM.

June 20-23—National Association of Broadcasters Convention, Chicago.

July 26-29—National Association of Music Merchants Convention, N.Y.C.



G. K. Throckmorton, with resignation of E. T. Cunningham, takes over Camden as exec. vp. RCAM.

Distributor Conventions

May 13, 14, 15—Zenith, Chicago.

May 19, 20, 21—RCA, Chicago.

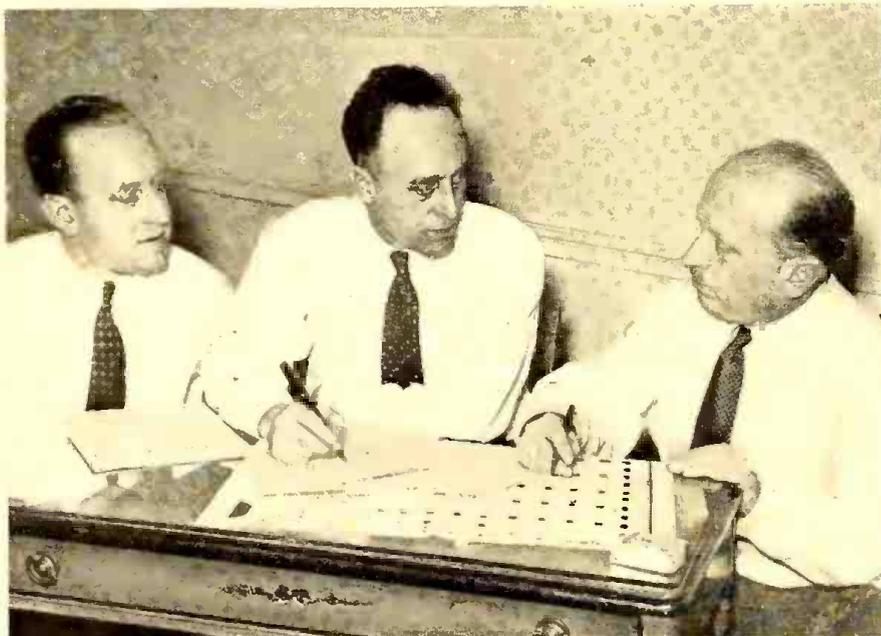
May 21, 22—Fairbanks Morse, Indianapolis.

May 24, 25, 26—Continental Radio & Television, Chicago.

May 24, 25—Grunow, Chicago.

June 14—Emerson, New York.

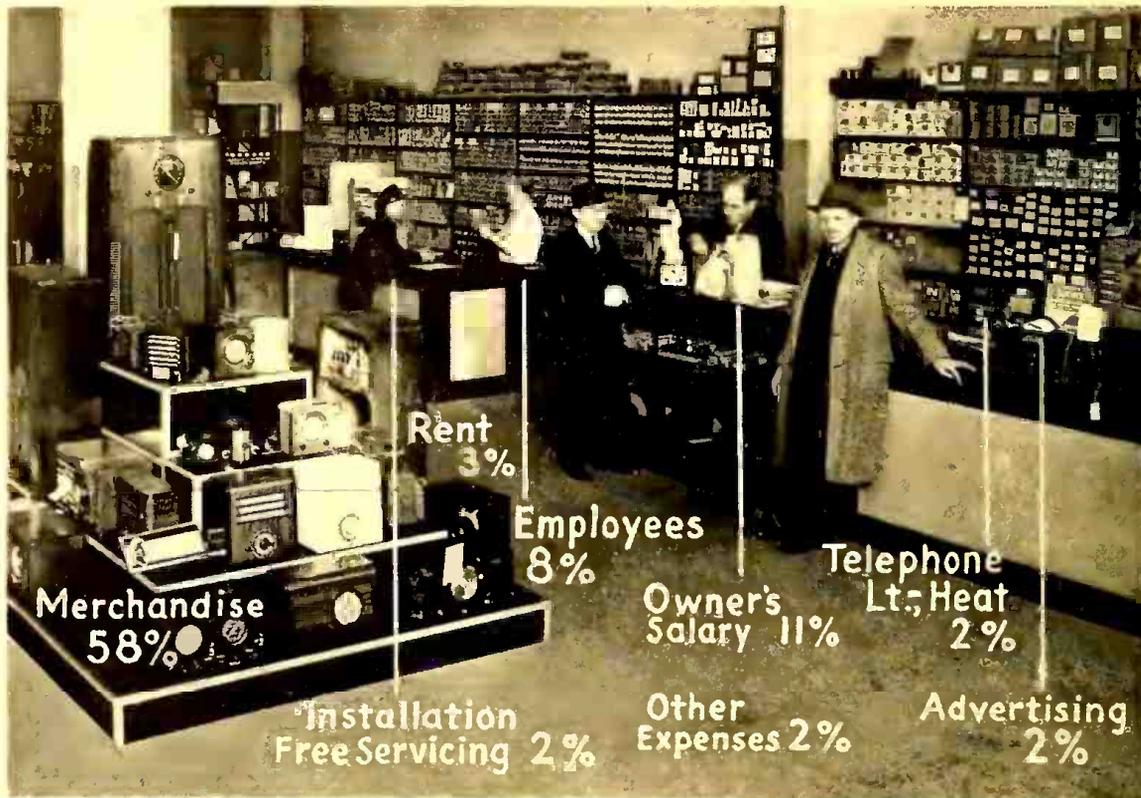
The Philco convention was postponed on account of strike at the Philadelphia factory.



Now called the three musketeers of the National Radio Parts Show Corp., left to right, Arthur Moss, Ken Hathaway and A. Berard, plan events of June 10-13.

ROYAL ROAD TO RADIO PROFITS

Lively averages from "Radio Today's" intimate survey of radio dealers' selling costs. Average retail net profit nearly 12%



★ **SMART SELLING**, and radio merchandising that is not so shrewd, have been examined in a new fashion by **RADIO TODAY**.

Certainly the trade has had a special hunger for detailed answers to the all-industry question of "operating costs" in the 1937 radio dealer's store. The relation of paid-out items to the sources of income has been a fine mystery. Into the confusion, this publication tosses herewith a set of yardsticks. To measure is to improve the prospects for profit.

Any report of **RADIO TODAY's** survey must begin and end with a lively note of optimism on how radio sales sprung the limits of previous totals. But it must contain stop signals in certain matters of expense.

Heart-to-heart figures have been assembled from all parts of the nation, from all types and sizes of radio sellers. Total of 5,000 dealers were invited to cooperate in this special study by **RADIO TODAY**, and to send in a report on their financial fix during the recent fiscal year. From the massed replies, the editors were able

to start off with figures based on nearly \$3,000,000 worth of radio sales.

Whether a dealer should slice his overhead and revamp his management set-up can, to a helpful degree, be determined by the national averages. All he needs to do is to have a careful look at the classification where his yearly income lies. If he is out of line with the typical figures, he can tell precisely where and to what extent.

High points

However, this is not a know-it-all letter to the dealer, saying: "Dear Dealer, your rent should be 3 per cent, the wages you pay should amount to 8 per cent, etc., of your total sales volume." Rather it is a flat statement about what other persons in the business are positively doing about such items, presented with the cordial hope that intelligent and useful comparisons will be made.

Gross sales in radio, minus returns, etc., were seen to range on the individual reports from below \$1,000 to \$1,659,611. Average for all the busi-

nesses was about \$19,300. The overall average per cent of increase over the previous year was 34 per cent. Some dealers reported that their sales were 100 per cent to 200 per cent ahead of the former period, and it was noted that the extreme increases were reported from the smaller stores.

Profits from service, listed in per cent of sales, were freakish in their ranges from 11.6 per cent to 160 per cent; hence no valid conclusions could be attempted. Interesting also was the fact that most of the service activity was among the smaller stores; many of the larger ones either did not have a service department, or reported figures which indicated little activity.

Everybody has an eye on the profit figures, and in this survey there were wild variations. Greatest average profit, expressed in per cent of sales, was in the stores which had the highest turnover—the group which did from \$20,000 to \$50,000 volume. This group managed to cut its expenses to 23.1 per cent of sales, while the average expense figure for all dealers reporting was 30.3.

Average story

Final averages of the amounts of business done on cash, credit and installment plans reveal the last-named to be well in the lead. Cash business, for the entire survey, accounted for 32 per cent of sales. Credit business added up to 15 per cent and installment 53 per cent.

From these figures on the distribution of business, it is noted that the per cent of installment business has a distinct tendency to increase among outfits doing the larger volumes. Larger stores, for the most part, handle other lines besides radio, and the conclusion is that radio managers get the benefit of the all-department installment policies.

Greatest per cent of credit business appears to be done among stores of medium size. Explanation of this is that most of these operate in smaller towns, where the matter of credit is easy to handle.

Merchandise costs are higher among smaller stores, due to the lesser discounts available to the man who buys in small quantities. In the group that did volumes of \$10,000 to \$20,000, the merchandise-cost averages fell to the lowest figure.

Expense control

Figures on "salaries of owners or officers" are inclined to be approximations because many owners of radio stores consider their total profits to be a combination of salary plus profit. The thing for a proprietor to do, of course, is to add in, among his expenses, a reasonable salary for himself.

When a store's total expense was influenced by the fact that other non-radio lines were handled, it seemed reasonable to pro-rate the lump cost of doing business according to what per cent of the entire business was radio. Final averages of total expenses were available in all cases because enough dealers reported totals, even though they omitted details.

Judging the costs

Totals on employee wages are less in the larger stores, when figured, as they are in the accompanying tables, in per cent of sales. These figures are consistently higher, too, among businesses which accented service. When a firm has paid out unusually big percentages for wages, the result is generally found reflected in "net profit in per cent of sales."

"Free servicing during guarantee period, delivery, installation" is an expense factor which is rarely investigated in a survey. Averages compiled

RETAIL COSTS AND PROFITS IN SELLING RADIO

Percentages for Businesses of Various Volumes (Based on Total Sales - 100%). From Radio Today's Survey of 1936 Radio Sales

Dealers doing volume of	Under \$1,000	\$1,000 to \$5,000	\$5,000 to \$10,000	\$10,000 to \$20,000	\$20,000 to \$50,000	Over \$50,000	Average
Salaries of owners or officers	13.4	10.6	11.1	8.3	9.0	—	10.5
Employees' salaries and wages	....	11.2	....	10.9	6.1	4.3	8.1
Rent	7.7	4.0	1.5	3.0	2.2	3.0	3.4
Advertising	6.1	2.0	0.8	1.6	1.1	2.5	2.3
Telephone, light, heat	6.1	1.5	2.1	1.5	1.1	...	2.4
Free servicing, delivery, installation	3.8	0.8	1.0	2.5	1.7	...	1.9
All other expenses	....	1.4	1.0	2.7	1.9	...	1.7
Total Expense	39.9	31.5	24.9	30.5	23.1	32.0	30.3
Cost of merchandise	58.1	60.6	58.8	54.9	58.8	56.0	58.0
Profit	2.0	7.9	16.3	14.6	18.1	12.0	11.7

VOLUME, TURNOVER AND PAYMENT METHODS

Figures on Merchandising Operations in Radio Stores of Various Sizes From Radio Today's Survey of 1936 Radio Sales

Dealers doing volume of	Under \$1,000	\$1,000 to \$5,000	\$5,000 to \$10,000	\$10,000 to \$20,000	\$20,000 to \$50,000	Over \$50,000	Average
Increase in Sales over previous year	60	15	0	40	15	40	34
Range of volume in % of previous year's volume	—20% to +150%	—70 to +600	—65 to +92	—15 to +105	—15 to +100	—2 to +200	—31 to +208
Turnover (times per year)	3.1	6.3	7.0	6.0	8.3	8.1	6.5
Character of Payment Method	Cash %	64	29	50	22	14	32
	Credit %	12	13	12	23	26	15
	Installment %	24	58	38	55	60	53

in this report show the item to be of genuine importance in modern selling practice, although it is a difficult figure for the dealer to arrive at.

To determine the turnover averages in this survey, the inventory figure at the beginning of the year was first added to the cost of merchandise purchased during the year. From this sum was subtracted the closing inventory; the remainder was then divided by the average of the opening and closing inventories.

From the results of turnover figuring, it appears that the typical dealer has in stock at one time about 8 weeks' supply of merchandise. A violent difference was noticed in turnover averages among the dealers doing under \$10,000 worth of business, as compared with those doing over that amount.

The classification "all other expense" includes such items as insurance, taxes, store repairs, office supplies and any other minor expense except those listed elsewhere.

Typical or average figures mentioned in this survey were arrived at by a combined median and arithmetical average treatment of the data reported.

University authorities cooperate

RADIO TODAY's work on the analysis of all the survey material has been directed by officials of the School of Retailing of New York University, New York City. Dr. Norris A. Brisco, dean of the School, and Dr. J. W. Wingate, associate professor of marketing, have supervised all interpretations of the survey results.

These two experts work closely with New York City's most important retailers, and have established the School of Retailing as the nation's first authority on retail practice and management. Procedure at the school is based upon actual field studies; its style of instruction is as modern as it is valid.

RADIO FAIR-TRADE PRACTICES

Advertising and "trade-in" allowances get industry's attention
Resale-price maintenance approved in 34 states, but not U. S.

★ NOTHING much is being overlooked nowadays in the efforts of law-makers, trade associations, and courts to make this the best of all possible radio worlds.

And some of the uplift is succeeding.

Much falls by the wayside, of course.

But out of all the welter of business reform, fair practice struggles, and gentlemen's agreements, a weary radio trade is climbing to greater security and stability.

The Fair Trade Practice Committee of the RMA did much to awaken the trade to the evils of "spiffs," premiums, allowances, and special concessions.

More effective control of dealers' and distributors' advertising allowances has also been a subject often discussed in the trade, and while no official agreements between manufacturers have been made, there is indication that a dollar-for-dollar allowance is regarded as pretty sound practice in radio. This means that for each dollar the retailer spends on advertising, the manufacturer may be expected to kick in with a corresponding sum. Claims are heard, now and then, that in some instances these dollar-for-dollar allowances are being

exceeded, but there seems little evidence that violations of the gentlemen's understanding are either widespread or flagrant.

Advertising allowances

It is true that in certain metropolitan localities special modifications of such a 50-50 plan have been instituted because of the wide discrepancy between the rates paid for advertising space by large chains and small dealers. As a result of conflicting claims in such cases, a schedule of definite amounts is understood to have been adopted by principal set-makers doing business in the New York metropolitan area. Under this plan, fixed sums per line of advertising in each newspaper are allowed. This means that with the low rates earned by some of the large chain outlets, as high as two-thirds of the actual cost of the advertising may be paid by the manufacturer, while in the case of smaller dealers who pay higher rates for advertising, the allowance granted works out to be the equivalent of 50 per cent of the advertising's cost.

Laws permitting "contracts to maintain resale prices" have been a feature in many state legislatures this year, and already such permissive statutes have been passed by thirty

or more states. The Miller-Tydings bill now before Congress would put such resale-price control on a national basis if passed, reinforcing the various state laws. But now that the Roosevelt Administration has definitely stated its opposition to this Federal measure to suspend the anti-trust laws and authorize resale price maintenance, the future of Federal resale price-fixing is very much in doubt. Scheduled for enactment, however, is the Wheeler-Lea bill to extend the jurisdiction of the Federal Trade Commission to include "deceptive practices."

Setting resale prices

In New York State great interest has centered around the Feld-Crawford act which permits manufacturers to set resale prices of their products. While this law has been fought vigorously by some of the large retailers, it is, nevertheless, now in force and can be depended upon to protect retail prices of goods sold within the state. Where interstate commerce is involved, however, the Feld-Crawford act is without authority unless a supporting Federal statute is later passed.

The effect of such state laws for resale-price control is two-fold so far as radio is concerned. (1) The advertised price of the goods is controlled, and (2) the allowance which can be made for "trade-ins" can be fixed. It is in this direction of trade-in allowances that some of the most flagrant evasions of sound business practice have heretofore taken place. But now that the radio manufacturer or distributor may set the limit for trade-in values (as can be done in those states having resale-price statutes), a new tool for price-maintenance and trade stability is placed in the hands of the manufacturer.

"Trade-in" formulas

Schedules based upon age of set, number of tubes, wave-bands, etc., have also been offered. An example of such a schedule, figured on the old set being turned-in by the customer, is reproduced on this page, as developed by the Canadian RMA.

"Black books" have been tried as

Continued on page 14)

Recommendations by Canadian RMA



Schedule of Maximum Trade-In Allowances on Used Radio Receivers

STANDARD WAVE RECEIVERS

Mantels	Tubes 3-4	5-6	7 or more
Models three or more years old	\$ 8.00	\$12.00	\$16.00
Models one or two years old	14.00	18.00	22.00
Consoles	Tubes 4-5	6-7	8 or more
Models three or more years old	\$14.00	\$20.00	\$28.00
Models one or two years old	20.00	30.00	42.00

STANDARD AND SHORT WAVE RECEIVERS

Mantels	Tubes 5-6	7-9	10 or more
Models three or more years old	- - -	\$20.00	\$25.00
Models one or two years old	- - -	28.00	35.00
Consoles	Tubes 5-6	7-9	10 or more
Models three or more years old	\$28.00	\$35.00	\$45.00
Models one or two years old	35.00	45.00	60.00
Phonograph	- - -	- - -	\$ 5.00
Orthophonic Phonograph	- - -	- - -	10.00

Long and short wave receivers released prior to 1933 should be classified as standard wave receivers for trade-in purposes.

Models are to be classified as to age according to the year of introduction by the manufacturer. The above are suggested as maximum trade-in appraisal values on receivers in good operating condition and suitable deductions should be made therefrom with respect to making necessary repairs to put set in saleable condition.

SHOE-LEATHER—

The stuff that summer sales success is made of



Playing a portable set while it's being shown to outside prospects.

Calling by appointment, with real radio news.



Checking up on business men, possibilities for several products.

Driving prospects to the store for special demonstrations.

THE 1938 RECEIVERS

- automatic electric tuning adopted generally
- more tubes — fewer ultra-hf tuning bands

★ OUR "radio Winchells" report that at least half a dozen radio-set manufacturers will feature motor-driven automatic tuning systems this season. As predicted last month in RADIO TODAY push-buttons will most likely be used in conjunction with the motors for rapid, easy tuning. And remote controls can easily be added by placing blocks of additional buttons at the desired locations.

Some of the motor drives are reported to be a bit noisy in operation because of grinding gears—without doubt improvements will have made them silent before the year's production is seriously begun.

A larger number of models than last year will employ the dial-type automatic tuning. Even in the very low-priced models "telephone dial" tuning will be employed—but these models should not be confused with the larger sets employing automatic frequency control and "stops" on the dial. In fact these inexpensive sets cannot be truly classified as automatic tuning models since the dial does not stop automatically at the station. The dial is only a means of rapidly tuning to approximately the desired station.

Other models will be introduced us-

ing an automatic tuning dial without automatic frequency control. When comparing the various sets, the dealer should ascertain whether or not AFC is employed—and also if the dial used has stops for the various stations.

More liberal use of tubes seems to be the keynote of 1937-8 design. When there is a choice of having dual purpose or two separate tubes, some of the manufacturers have decided upon using the extra tube. As a result a few of the models will have one or two more tubes than last year. At least from a sales angle and because of rising production costs, this padding is justifiable.

Because of the economic factor, some half-dozen manufacturers have omitted the ultra-high frequency tuning band from this year's models. To offset this, only one manufacturer not using U.H.F. last year is known to have adopted it this season. It is unfortunate that the U.H.F. is being discarded in sets, for only recently the F.C.C. has given new interest to this band through the licensing of stations to carry "commercials" (sponsored programs with advertising) on the ultra short waves.

The circuits of the sets are being

stabilized to a much better degree against temperature and humidity drifts. Thermostatic correction is being used in the trimmers of a few of the new models. This means that the I.F., oscillator, and other critical circuits will stay better aligned.

Automatic selectivity control has received a temporary set-back and it seems unlikely that any of the early production of sets will include this refinement. There is, nevertheless, the possibility that A.S.C. will be incorporated later on in the more expensive models.

Auto radios merchandised by the car manufacturers under their own names this summer will use automatic frequency control in the more expensive models, according to word received from the automotive industry. Later in the year the radio-set manufacturers' own branded models will include this feature also.

In the matter of tube equipment in the 1938 sets, it now seems doubtful that metal-tube complements will go ahead of the past year, if indeed they equal the metal-tube high-water mark of recent months. Some manufacturers who have used metal tubes extensively, are including glass rectifiers and glass power-output tubes in their new sets shortly to appear. Octal-base glass tubes of the G type have however pretty firmly established themselves, so that the new base is standard.

FAIR-TRADE PRACTICES

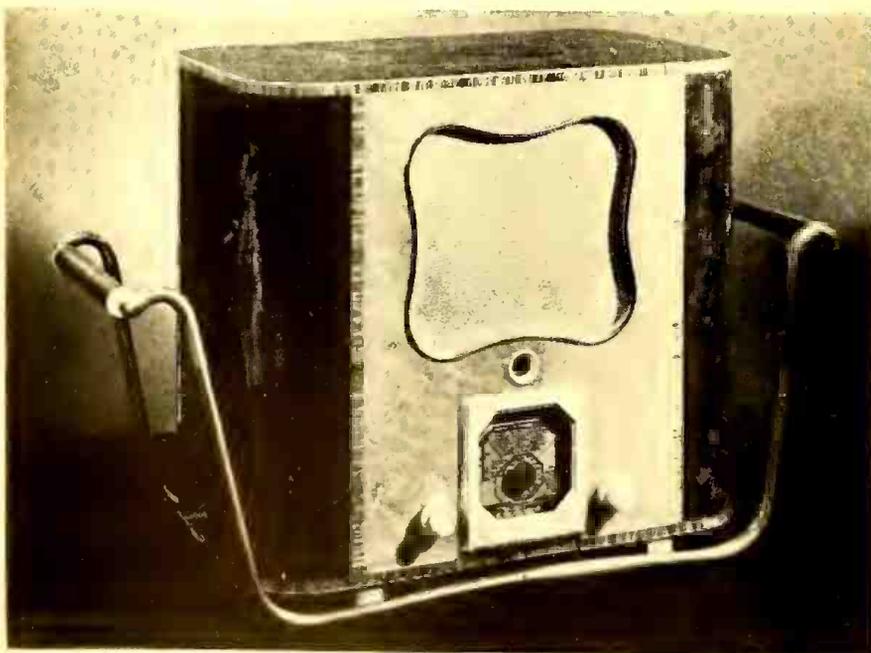
(Continued from page 12)

the basis of trade-in allowances, usually without success. Too often the prices quoted in such lists or "books" have been so very small that they are of virtually no value in helping the dealer handle his trade-in problem.

The difficulty with a trade-in plan of this kind, in which the trade-in value is figured from the old set itself, is that the computed value of the old set may be entirely out of line with the margin available in the price of the new set offered by the dealer. Obviously the amount that the dealer will be able to allow depends not so much on the old receiver (which, after all, has very little market value) as on the price of the new model he is selling the customer.

A formula for trade-in allowance which takes cognizance of this principle is that proposed by a New York radio dealer, which offers, on the sale of a new radio set listing at—

Up to \$49.99	10%
\$50.00 to \$99.99	15%
\$100.00 to \$249.99	20%
Above \$250.00	25%



ROSEWOOD and ivory receiver, one of many built for the Maharajah of Patiala (British India) by the Philips company. Front and back are luxuriously finished alike, and the sets are carried on chromium sledges through the rooms of the palace.

INNING FOR TUBES

- baseball broadcasts stir replacement sales
- "service" business follows major league clashes



★ ALL-STATE interest in tube renewals arises sharply from the fact that major league baseball is under way.

Set manufacturers pick out a receiver and call it a "baseball special" and tube companies issue fancy game schedules. Millions of fans want the scores, and a big section must pay the radio serviceman for them.

In the clubs this season are considerable swatting genius, several "million-dollar arms," and a group of diamond personalities whose names are magic. "Sensation" is the keynote for the 1937 season, and "must" is the word for the resulting broadcasts.

Radio pennant

Official "Play Ball!" was uttered on April 19 and major league schedules run to Oct. 3, with the interleague game at Washington on July 7. Radio men are already busy plastering the daily dope on their street windows.

"Baseball brings a good many sets into operation that are never used for anything else," is the view of Arthur Silverberg, at Grand Central Radio, Inc., New York City. He adds too that his shop can depend upon many additional rentals to hotel rooms and offices, as well as to various types of shops.

Silverberg angle is also that the trend toward broadcasting play-by-play reports of games has helped the tube business. There's a great deal of listener-thrill in such procedure, besides the running interest in league

standings. Experience indicates that the business is easy to get; a lot of it comes in by telephone voluntarily.

Group listening

Herman Diaz, of New York's Barclay-Warner organization, points out that restaurants and bars are generally eager to get all baseball reports via radio. Such places work up interest among customers and would be embarrassed by faulty reception or failure of the set.

That the interest is keen long before the world series arrives, is something that Diaz counts on to boost his business. He believes that portable sets come in for a good share of the extra interest, because club perform-

ances are generally followed by those who are on the move during summer months.

Conclusion is also that the followings of all sports and news commentators are hiked because of major league happenings. Those who miss the afternoon broadcasts depend upon sundown radio reports for results of daily clashes.

Back to work

"You can depend upon a lot of previously inoperative sets being put into action at the high points of the baseball season," is the statement from M. Freed, Davega service exec. Here, the feeling is that radio interest in the game is universal, except for that group which listens only to foreign broadcasts.

Freed attitude is that you can swing your seasonal service campaigns with much greater ease if you have a lively sports season to talk about.

A. E. Rhine, radio service engineer, New York, has plenty of experience to support his remark that afternoon listening is hiked importantly by the baseball thing. He has noticed that it cuts out a few women listeners, or the audience would be increased even more.

Any program that shows signs of including the baseball news will find its audience increased, according to Mr. Rhine, and all of this means more tube renewals.

To be heard on the networks in baseball broadcasts are the ace commentators Babe Ruth, Paul Douglas and Ted Husing at CBS; airing at local high points during the season are NBC stars including Ford Bond and Graham McNamee. Mutual network presents the popular commentator, Stan Lomax.

Major League baseball schedule for summer. Large date numbers are Sundays; teams in black letters are National League.

From a Haynes Radio Log presented by Hygrade Sylvania.

	CHI.	ST. L.	PHIL.	N. Y.	BOS.	DATE	DET.	CLEV.	WASH.	CIN.	PIT.	BRK.
BRK	N. Y.	Det.	Chi.	Cle.	18 19 20							
N. Y.	BRK	Chi.	St. L.	Det.	21 22							
Bos.	Phi.	St. L.	Cle.	Chi.	23 24							
Phi.	Bos.	Cle.	Det.	St. L.	25 26 27							
CHI	WAS.	PHI.	WAS.	ST. L.	28		ST. L.	CHI.				
CHI	PIT.	N. Y.	PHI.	WAS.	29 30		ST. L.	CHI.				
ST. L.	CHI	BOS.	BR 2	NY 2	31							
ST. L.	PHI.	BOS.	BRK.	PIT.	1			Det.				
Bos.	Phi.	CHI.	PHI.	CHI.	2 3		WAS.	N. Y.				ST. L.
J. PHIL.	Bos.	ST. L.	PIT.	CHI.	5 6 7		N. Y.	WAS.				CIN.
N. Y.	WAS.	PIT.	ST. L.	CIN.	8 9 10							CHI.
WAS.	N. Y.	CHI.	CIN.	ST. L.	11 12 13		Bos.	Phi.				PIT.
Bos.	Phi.	ST. L.	Cle.	Chi.	14 15							
PHI.	Bos.	Det.	Chi.	Cle.	16 17							
N. Y.	BRK.	Chi.	Cle.	18 19 20								
BRK.	N. Y.	Chi.	St. L.	Det.	22 23 24							
BRK.	N. Y.	Cle.	Det.	St. L.	25 26 27							
Det.	CHI.	N. Y.	PHI.	BRK.	29 30			ST. L.	BOS.			
Det.	CHI.	N. Y.	PHI.	BRK.	1			ST. L.	BOS.			
PIT.	CHI.	BRK.	BOS.	PHI.	2 3			Det.	N. Y.			
PIT.	ST. L.	WAS.	BOS.	NY 2	4							
ST. L.	CHI	WAS.	BOS.	NY 2	5			CHI 2				CIN 2
CHI	WAS.	BOS.	NY 2	6								PHI 2
J. INTER LEAGUE GAME 7 AT WASHINGTON												
Y. ST. L.	CHI.	BOS.	WAS.	PHI.	9 10 11							
Cle.	N. Y.	PHI.			12							
Cle.	N. Y.				13							
PHI.	BOS.	ST. L.	PIT.	CHI.	14 15 16		N. Y.	WAS.				
Bos.	PHI.	PIT.	ST. L.	CIN.	17 18 19		WAS.	N. Y.				
WAS.	N. Y.	CHI.	CIN.	ST. L.	20 21 22		BOS.	PHI.				
N. Y.	WAS.	CIN.	CHI.	PIT.	23 24 25			BOS.				
BRK.	N. Y.	Cle.	Det.	ST. L.	27 28 29							
N. Y.	BRK.	CHI.	ST. L.	Det.	30 31							

TALK-BACK BUSINESS

- summer strategy in 'phone selling
- demonstration wrinkles among dealers

★ **TRICK SERIES** of early summer angles has turned up in the business of selling intercommunicators.

Pleasant weather has dragged nearly all the sales effort out-of-doors, just when the business was old enough for nearly everyone to decide, anyway, that "you have to go after it."

Dealers are hiring groups of outside salesmen to sell nothing but the inter-phones on a commission basis. Current practice is to advertise for, and try to select, salesmen who already have office "in's." Especially useful are gents who have had experience selling typewriters or some type of office equipment.

In many cases, salesmen take a master unit and one station along with them, in the original carton. Carried along too is enough cord to demonstrate the inter-room idea, if it's the kind that uses cord.

New strategy

Radio men are aware of the fact the intercommunicators have sales possibilities in any office where time is an important factor. The step-saving, speech-service appeal is powerful in these offices where inter-executive activity is rapid, but it has one problem. The busy places are the very ones which won't talk to a salesman if he makes his approach at the wrong time of day.

Dealers have warned salesmen that they should study the routine of the

800,000 PROSPECTS FOR INTERCOMMUNICATORS IN U. S.

- 1,800 advertising agencies
- 48,100 auto dealers
- 16,000 banks
- 13,300 brokers
- 560 colleges
- 16,200 dairies
- 67,800 dentists
- 4,750 department stores
- 144,740 doctors
- 110,000 factories (main offices)
- 7,300 foundries
- 72,150 garages
- 8,700 hospitals
- 24,350 hotels
- 10,600 laundries
- 10,000 libraries
- 160,000 movies
- 16,000 newspapers
- 126,800 restaurants
- 102,400 truck fleet owners

professions involved. Radio men themselves have some of this data, from their acquaintances with office persons among their regular customers.

All of this special effort is worth while, apparently, because as one dealer puts it, "as the public gets edu-

cated on the usefulness of these systems, they'll sell easily!"

Reports from dealers contribute a certain amount of other material to the rules of the game:

Discoveries

1. Business executives very often have elaborate homes, so it's no good stopping after you've sold them a system for business use. Give them the works on the multiple uses of the inter-phones around the home.

2. Watch the newspapers for office rental notices, and items about moves made by companies. A good many systems have been sold just as a firm settled into new quarters.

3. Business executives are more particular about the appearance of their desks than is generally supposed. Salesmen must be altogether positive that the gadgets are in perfect condition from the standpoint of looks.

4. Brokers are excellent prospects because the element of time is extremely important in the business.

5. Tested method of starting a sales talk is to get the prospect to draw a sketch of his office or home set-up; drawing gives him something tangible to illustrate efficiency intercommunication.

More ammunition

From the two dozen manufacturers who are active in the field, come a series of interesting trade names for the inter-phones on the market today. In many cases they are descriptive of their many uses:

- | | |
|--------------|--------------|
| Bulletphone | OrderQuick |
| Carrier Call | PDQ |
| CalFon | Philcophone |
| Communaphone | PicturPhone |
| Communophone | Privaphone |
| Detectophone | PortaFone |
| Dictograph | Speech Relay |
| ElectroCall | TalkListen |
| ElectroTalk | Technatalk |
| Factoryphone | Teletalk |
| Interfone | Transfone |
| | Vocaphone |

An almost unlimited number of applications for these intercommunicating systems suggest themselves. Practically no office, plant or store is without opportunities for such sets to demonstrate savings in time and money.

Dealers can write down, easily enough, actual figures on what money can be saved in individual types of offices by the use of these systems. Such calculations, figured out in advance, make fine sales arguments although they must be presented in a flexible fashion. There are times when such data can be mentioned by a demonstrating voice.



Illustrating, with a Transfone intercommunicator, one of many home uses.

SUMMER STARS

Broadcast artists important
to the dealer's season



Network guest singer and pianist, Niela Goodelle.



Gracie Allen, the life of a Monday night series.



Guest actress Joan Crawford of the Radio Theater.



Mutual's newest singing star, Christina Lind.



Opera singer Lily Pons, on a Wednesday night hook-up at CBS.

RADIO AUDIENCE IN 1937

CBS presents complete statistical picture of radio users by income groups, communities and individuals

28 more radios will be bought in the United States in the minute it takes to read this page. 140 more radios will be bought in the five minutes it takes to glance through this book. And in the three months from January 1st to April 1st, 1937, over 1,300,000 new radios were bought by new (and old) radio families and by the automobile owners of the United States.

★ ABOVE is the arresting introduction to Columbia Broadcasting System's very complete new analysis of the 1937 radio listening audience, viewed from many different angles of income-levels, city size, time zones, automobile-radios, day and night listening, homes with extra sets, age and sex of radio listeners, radio ownership by states, etc.

95,500,000-hour radio day

In the United States, 95,500,000 family-hours of radio listening occur each day. Here are the arithmetic steps which lead to this astronomical but accurate statement. (A) 24,500,000 radio families in the U.S. (B) 76.4 per cent—or 18,718,000—listen some time daily. (C) Average time these families listen daily is 5.1 hours.



TRAVELLERS on crack cross-continental trains are now added to the radio audience, as principal railroads equip for continuous radio listening en route.

(D) 5.1 hours \times 18,718,000 sets in daily use equals 95,461,800 family-hours of listening each day.

94.7% of all radios are kept in working order.

76.4% of radios are in use some time daily.

64.0% of radios are in use some time after 6 P.M.

57.6% of radios are in use some time before 6 P.M.

73.3% of all radio homes, with incomes over \$5,000, listen daily.

77.4% of all radio homes, with incomes \$2,000 to \$5,000, listen daily.

76.9% of all radio homes, with incomes under \$2,000, listen daily.

76.4% of all radio homes listen daily.

Buy radios for use

The levelness of the findings by income-groups should not be a surprise. It is but another, and consistent, check on the radio interest of the American public. It is confirmed by the ownership figures. (People do not buy radios as some people buy pianos: as a piece of furniture or a "symbol" of culture in the home. They buy radios for use. This includes the families on both sides of the railroad tracks.) Radio is an

extraordinarily democratic institution, exactly alike to rich and poor.

71.6% of all radio homes in cities over 250,000 listen daily.

77.4% of all radio homes in cities 25,000 to 250,000 listen daily.

76.3% of all radio homes in cities 10,000 to 25,000 listen daily.

83.9% of all radio homes in cities 2,500 to 10,000 listen daily.

76.4% of all radio homes listen daily (average).

Small towns

As everyone might expect, people in most small towns listen longer each day than people in big towns. Anyone who has ever lived in a small town will know why. But note that even in the largest cities of the country almost three out of four families are listening every day. What better evidence can there be of the tremendous vitality of radio? No single city in the world, however big, is as rich in entertainment, culture and news, as the living-room—or automobile—of any radio owner. No city in the world could hope to support the orchestras, the opera, the sports, the theatres and concert-halls which regularly fill radio's schedules . . . and create radio's audience everywhere. It does not matter how small or removed the city, radio makes it rich.

Listening increases with use

These averages are based on all sets in use some time during the day. By income levels:

4.6 hours (incomes of \$5,000 and over).

5.1 hours (incomes of \$2,000 to \$5,000).

5.2 hours (incomes of under \$2,000).

5.1 hours (average for all incomes).

People used to tease us by saying, "Oh, the novelty of radio wears off in time." Lest anybody still remember such teasing or take it seriously, we publish again exact data taken directly from the audience, explains the CBS compiler. It shows how listening increases with years of ownership. The longer people own radios the more they use them. "Novelty" does not apply to radio any more than it does to the normal appetite for entertainment. And neither wears thin.

1 to 2 years of ownership—4.6 hours of listening daily.

3 years of ownership—4.6 hours of listening daily.

4 years of ownership—4.9 hours of listening daily.

5 years of ownership—5.0 hours of listening daily.

6 years or more—5.3 hours of listening daily.

To the consumer, RCA Radiotrons mean high quality... To the radio man, RCA Radiotrons mean easier selling, higher profits

BUILD NEW SALES AND GET PAID FOR DOING IT!

"Service Men's Meeting of the Air" Unique "Check-Up" Salesman!

RCA and its distributors are sponsoring a new radio program on 51 stations from coast to coast which is helping you sell the Check-Up idea in a unique way.

At the beginning of each program, a frequency run is broadcast. It serves to make the listener sit up and take notice. Then, when the consumer is wondering why his set does not receive the signal, the announcer will say: "If your tonal range is quite limited—or if your reception is generally not as good as you would like, call your local radio service engineer for a Check-Up. These men are all radio experts and they will locate the source of your set's trouble with this Check-Up service, which includes 10 testing, cleaning and adjusting steps, all for only \$1.50."

Auto Radio Check-Up Opens New Field for Sales of Service, Tubes and Parts

1,412,000 auto radios were sold last year. This year it is estimated there will be 1,750,000 more sold. Car dealers aren't prepared to service them. You are! These radios need attention more often than home sets—and the RCA Auto Radio Check-Up Plan gives you a great opportunity to cash-in on extra business.

THERE'S MONEY FOR YOU IN THESE FIGURES

The figures shown here are glowing evidence that radio set ownership furnishes the key to increased service and appliance equipment sales—sales you can make!

7 out of every 10 homes have a radio set.

BUT

8 out of every 10 radio homes have only one radio.

In 7 out of every 10 radio homes

Radiotron Ads Tie-in with Your Window to Help You Sell "Check-Up"

RCA Radiotron, the only tube manufacturer doing any national consumer advertising, crashes through this month with full-column advertising in Saturday Evening Post and Collier's. These advertisements sell the Check-Up idea by using a powerful new theme—"Tired Tubes"—which is tied in with national events that are *news!* A sample of one of these vividly



The streamer at left and ad at right will help you tie-up with the Coronation

alive, newsy ads is shown above. Others will follow every other week—based on the big championship fight this Summer, the World Series, the thrilling football games and other important events throughout the year.

TIE-INS FOR YOUR STORE

Not only is RCA doing a tremendous advertising job, but is further helping you cash-in on the Check-Up by supplying you with colorful window streamers, which tie-in with the timely advertising! The first of these streamers based on the Coronation, is scheduled to be mailed to subscribers to the 1937 RCA Display Service, May 1st. They will be sent for display at the same time magazines are running advertisements which will feature a similar event. In this way both the advertising and displays will be doubly effective!

GET THIS YEAR-ROUND DISPLAY SERVICE!



Shown here is the second of the RCA window displays in the 1937 Display Service. This one is going out to subscribers now. It can be used very effectively either by itself or as a background for the advertising tie-in streamers mentioned in the preceding article. This particular display provides you with a blackboard, chalk and eraser, so you can write in your own message.

Your RCA Tube distributor will be glad to give you further details. See him today.

RCA Radiotron Spring "Check-Up" Plan a Proved Way to Profits

58 out of every 100 radios in your neighborhood need service, repairs, new tubes! This fact, plus the many other startling, yet bona-fide, figures revealed in columns 1 and 2 (lower left)—tell you *why* the RCA Spring Check-Up Plan is successful.

With the Check-Up you can get into the homes whose radios need service. People will realize the worth of a radio check-up, because they know the benefits of other check-ups—auto, health and dental. And, in your role of "Radio Doctor" you can get the chance to sell *more* than tubes. For, as the figures show, nearly all the homes need electrical appliances, new radios. Hence, you can make valuable sales contacts, find new prospects, while performing a service for which you are paid!

New RCA Pindex Tells Position of Tube Prongs

How many times have you laboriously checked tube charts and service notes to find which tube pin is plate, which is grid, etc.? And even after you found them you still were not sure you were right!

Well, here's the answer to all of these and many other questions—the RCA Pindex. In operation this clever device is simplicity itself. Pick out the type number of the tube, pull the slide until that number appears in the opening beside the indicated "socket" and the pin positions are graphically shown. No tables, no numbers to remember, no complicated figuring.

Pindex is small (3" x 6½"), flat, fits neatly into your pocket. It is made of heavy celluloid for long wear. Ask your RCA Tube distributor how to get yours.

INSTALLING AUTO SETS

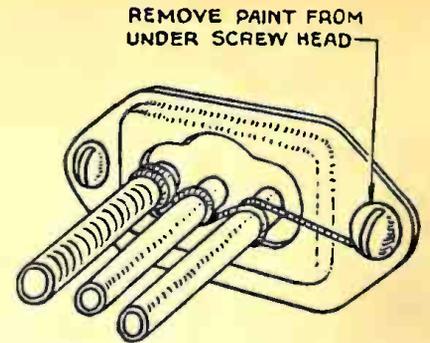
★ ROUTINE installation practices are usually sufficient in most cars—although in some extensive work must be done to eliminate the electrical noises. However, in any installation the recommended procedure by the automotive manufacturers should be followed for speed and least work.

Tabulated here on this page are the suggestions given by the radio departments of the various car companies for the 1937 models. Table gives the antenna lead-in location (light face indicates built-in an-

tenna), battery terminal grounded, location of suppressor resistors, grounds to be made, and the location of the fish line for header speakers when used.

Ordinarily battery polarity is unimportant—but if the set employs a synchronous vibrator-rectifier it is essential that the polarity be taken into account.

Condensers should be used in each one of the locations listed in the table—and the length of the lead should be as small as possible to effectively by-pass the noise. Values



In some cars the controls should be bonded to the dash to prevent interference from entering the body. An easy way of bonding is shown above.

are usually from .1 to 1 mfd. Condensers located in the engine compartment should be of the highest quality obtainable to withstand the temperature, and impregnated to be moisture proof.

Grounds important

Grounds are often more important than the use of condensers—consequently great care must be taken to make sure that the routine grounds are effectively obtained. In many cars the controls—which include choke, speedometer cable, ignition or spark control, hand throttle, oil gauge tubing, thermometer, etc.—should be grounded to the dash so that they will not carry ignition noises back into the car body. The diagram on this page shows how it is done on the Chrysler cars.

While spark suppressors are not used in the plug positions in most cars, they are recommended for use at the distributor. Very often the background noise produced by the ignition system is annoying when driving in areas with low signal strengths and when tuning from station to station. Spark plug suppressors will greatly reduce this interference—and recently low resistance units have been developed which squelch the noise without reducing the engine efficiency, according to the manufacturer, Continental Carbon.

Cars designed for use with header type speakers are built usually with a dummy cable or fish line that is used for pulling through the speaker cable. The side on which this fish line is located is listed in the accompanying table. Care should be taken in pulling through the speaker cable not to break the fish line—sudden jerks may break the line. If the cable does not come through quite easily it is well to see that there are no kinks.

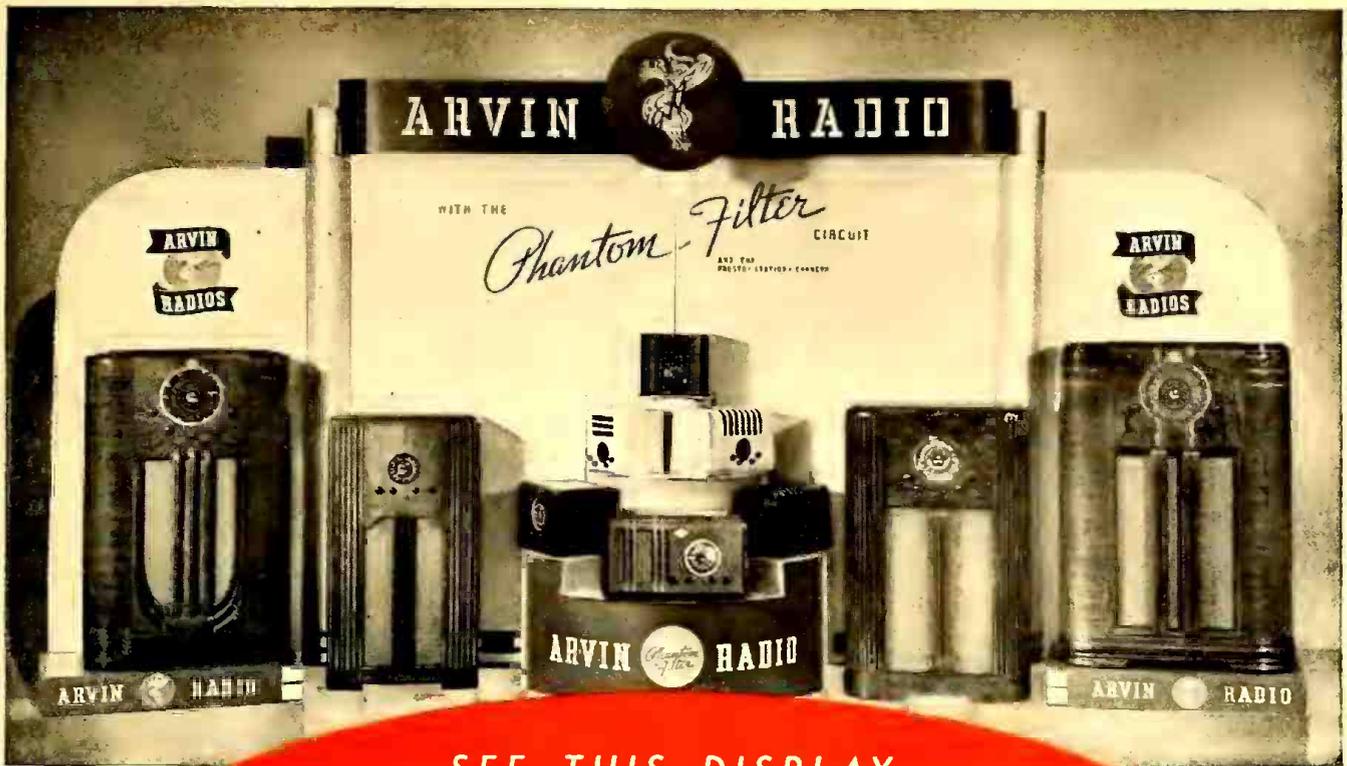
By following the recommended instructions, car radio installations will be greatly simplified with a consequent increase in profits.

ROUTINE INSTALLATION PRACTICES FOR 1937 CARS

MAKE OF CAR	Grounded battery terminal	Antenna lead-in location	Suppressor location	BY-PASS CONDENSERS	GROUNDS	Header speaker cable location
BUICK	N		Dis	Generator Ignition coil	Front wheels	
CADILLAC	P		Dis SP	Generator Clock Ignition coil	Front wheels	
CHEVROLET	N		Dis	Generator Ammeter	All wheels Muffler	
CHRYSLER Air Stream	P	Left	Dis	Generator Ignition switch or ammeter	Controls	
CHRYSLER Air Flow	P	Left	Dis	Generator Ignition switch or ammeter	Dome light Controls Steering column	
CORD	P		Dis	Generator Ignition coil	Exhaust pipe	
DE SOTO	P	Left	Dis	Generator Ignition switch or ammeter	Controls	
DODGE	P	Left	Dis	Generator Ignition switch or ammeter	Controls	
FORD V-8	P	Left	None	Generator cut-out Gas gauge, Ignition switch	Oil gauge None	Right
GRAHAM 85	P		Dis	Generator Ignition switch	Muffler Rear spring	
GRAHAM 95, 116, 120	P	Left	Dis	Generator Water thermometer Ignition switch	Oil gauge Regulator	Left
HUDSON	P		Dis	Generator Water thermometer	Gas gauge Transmission Muffler	
LAFAYETTE	P		Dis	Generator cut-out	Muffler Brake cable	Right
LA SALLE	P		Dis SP	Generator Ignition coil	Clock Front wheels	
LINCOLN V-12	N	Rear seat	Dis (2)	Generator Water thermometer Ignition switch	Oil gauge Gas gauge Dome light	
LINCOLN-ZEPHYR	P	Left	None	Generator Water thermometer Ignition coil (2)	Gas gauge Oil gauge Relay	
NASH	P		Dis	Generator cut-out	Muffler	Right
NASH AMB.	P		Dis (2)	Generator	Muffler	
OLDSMOBILE	N		Dis	Generator	Muffler Engine Front wheels Transmission	
PACKARD 115 & 120	P	Left	Dis	Generator Ignition switch	Clock Steering column Controls	Right
PACKARD 8 & 12	P	Right	Dis	Generator Regulator	Dome light None	
PIERCE-ARROW	P	Right	Dis	Generator (2) Ammeter	None	
PLYMOUTH	P	Left	Dis	Generator Ammeter or ignition switch	Controls	
PONTIAC	N	Left	Dis	Generator	Cylinder head to dash Front wheels	
STUDEBAKER Dictator	P		Dis	Generator	None	Right
STUDEBAKER President	P		Dis	Generator	Engine to floor board screw	Right
TERRAPLANE	P		Dis	Generator Water thermometer	Gas gauge Muffler Transmission	
WILLYS	N		Dis	Gas gauge Generator Ammeter or ignition switch	Oil gauge None	

Light-face antenna location indicates built-in aerial. DIS—Distributor SP—Spark Plug.

Above data courtesy Motor and car manufacturers listed



SEE THIS DISPLAY
AT YOUR JOBBER'S

NEW 1938 ARVINS

WITH THE *Phantom Filter Circuit*

● Anyone who knows the technical side of radio knows this: The basic difference between radios lies in the circuit—the way the various characteristics of coils, condensers, transformers and tubes are knit together. In the Phantom Filter Circuit, Arvin engineers have combined these and other units in a way that produces better radio reception. It is apparent when you listen to the new Arvins alongside other radios. Do that now—at your jobber's.



ARVIN PHANTOM QUEEN Model 1247—a lovely 12-tube combination bookcase radio, priced at \$140.00. Has automatic tuning with Arvin's Presto-Station-Changer... and all other modern features. Other consoles and table models shown above on impressive Arvin Floor Display.



BETTER RADIO RECEPTION because of the Phantom Filter Circuit—that's the dominant sales idea in Arvin national consumer advertising. Full page announcement in Post and Collier's coming soon. Miniature reproduction shown above.

● The Phantom Filter Circuit is a powerful sales producing feature—because it means better radio reception. And that's exactly what folks want in radios. That—plus cabinet styling which appeals. Of course, the new Arvins have every modern radio improvement, including automatic tuning with Arvin's Presto-Station-Changer in the larger models. Arvin has both the performance and the styling that makes sales. See them. The line is "hot!" Noblitt-Sparks Industries, Inc., Columbus, Indiana.

ARVIN PHANTOM BACHELOR Model 628CS—a distinctive chair side console, popularly priced at \$69.95. This is one of 19 beautiful Arvin radios priced to sell from \$19.95 to \$160.00. Also 2 and 6-volt battery models in console and table cabinets. Prices slightly higher in extreme South, Denver and West.



Sales are Booming on Arvin Phantom Filter Car Radios

DAILY PLANS FOR RADIO DEALERS

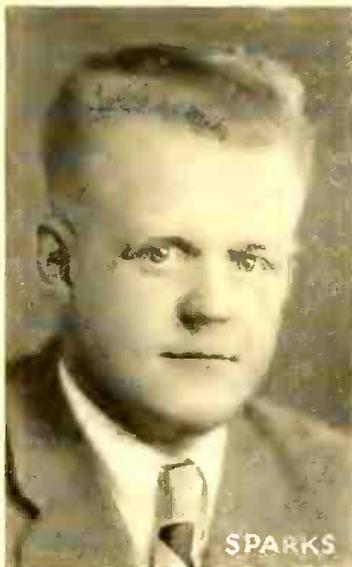
Half a dozen radio men furnish tested ideas for monthly schedule

May 20-31

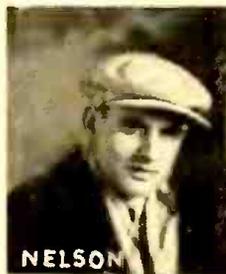
- 20—Stage a guessing contest on a pile of old tubes in your window.
- 21—Fix a counter display on auto radio, with the vibrator uncovered. Working mechanism will attract 'em.
- 22—Find out your prospects' church faith—mention special broadcasts by denomination and religious groupings.
- 23—Sunday.

- 24—Re-vamp your store stationery to include novelty reproductions of new auto radio control knobs.
- 25—Start a campaign under the head, "Your Home Is the Place to Try Our Radios."
- 26—Install a neon sign on the front of your delivery truck arranged in a musical-bar pattern.
- 27—Take a trade-in set to your com-

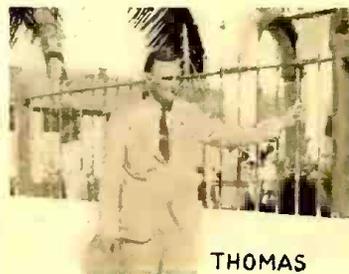
- munity auction sale, offer the buyer a feature allowance on a new receiver.
- 28—Pick out prospects remote from noisy power lines, concentrate on selling expensive sets.
- 29—Build a window display around a radio completely taken apart.
- 30—Sunday.
- 31—Send prospects a card with all types of vacations listed, ask them to indicate their plans and return.



SPARKS



NELSON



THOMAS



COLVIN



TOMALINO



PETER

June 1-20

- 1—Offer to have a new radio installed in summer quarters before the prospect moves in.
- 2—Arrange colored sets in your window, progressing from the darkest to the lightest.
- 3—Open a campaign on home movies, vacation style, selling equipment as a summer stunt.
- 4—Display news pictures of the Spanish War, along with photos of news commentators now on the air.
- 5—From cardboard, cut out a large human hand. Place it above the handles of a string of portable sets.
- 6—Sunday.
- 7—Go after college prospects coming home from school. Send them new lists of dance broadcasts, personal radio suggestions.
- 8—Send interested prospects a major league baseball schedule.

- 9—Display a batch of records, with small photo of artist in center of each.
- 10—Start a campaign on the new wall-type hang-up sets, for bedroom, kitchen, den, etc.
- 11—Send prospects a copy of Editor O. H. Caldwell's recent NBC broadcast on "Getting Your Radio in Shape for Summer."
- 12—Cash in on the fact that you can now leave your front door open; line up a group of sets near the entrance.
- 13—Sunday.
- 14—Build a window using several shades of the color blue, featuring blues singers now on the air.
- 15—Send prospects an actual photo of your new summer air conditioners.
- 16—Suspend a series of baseballs from the ceiling, so that they form the outline of a tube.
- 17—Plug new radio sets for young-

- sters, via Children's Day on the 19th.
- 18—To get the farm radio business, prepare a series of folders and handbills to distribute from your delivery truck on trips through the country. Just drop them on the ground.
- 19—Send out a batch of old sales letters, with 1937 corrections made by hand, to attract extra attention.
- 20—Use a "stair step" idea in your window, starting with your tiniest receiver and arranging a row of sets until you reach your biggest console.

Dealers pictured herewith, whose ideas are listed on this page, include A. F. Tomalino, Glendive, Mont.; J. W. Colvin, Grymes' Radio Service, Orange, Va.; Ralph Sparks, Sparks Auto Supply, Bluffton, Ind.; Carl E. Nelson, S & M Tire Co., Minneapolis, Minn.; Fred V. Peter, Jerseyville, Ill.; John Thomas, Suburban Radio Service, New Rochelle, N. Y.



SAFETY FIRST! Admiral completely eliminates the hazard of auto radio tuning while driving. Keep your eyes on the road — where they belong. Just touch a button . . . and presto! in comes one of your favorite stations clear as a bell. Make 1937 your biggest auto radio year with touch-o-matic tuning and the new 1937 Admiral Auto Radios. Write for details.

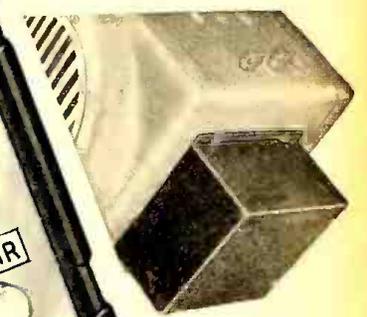
6-7-8 Tube Admiral Radios with External or Self-Contained Speakers

Powerful superhet circuit operates entirely from 6V car battery. Lowest drain. 10 KC selectivity. Variable tone control. Iron core antenna gives 1/4 MV sensitivity and increases antenna "pick up" 2 to 7 times over other car radios. Heavy duty dynamic and permanent magnet type speakers. Dash controls to match dash. (Touch-O-Matic tuning optional.)

Model 78 (7 tubes) and Model 88 (8 tubes) with external 8" permanent magnet dynamic speaker for installation in any position below dash. (see left)

Model 77 Admiral 7 tube auto radio with 6 5/8" self-contained dynamic speaker. (see right)

Model 66 Admiral 6 tube auto radio with 6" self-contained dynamic speaker. May also be adapted for installation with speaker in "header" in 1937 Fords.



Admiral Auto Radios \$35.95 and up

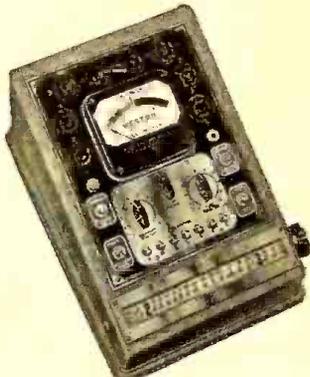
CONTINENTAL RADIO & TELEVISION CORP.
325 W. Huron Street Chicago, Ill.

NEW THINGS FROM THE MANUFACTURERS

Philco parts

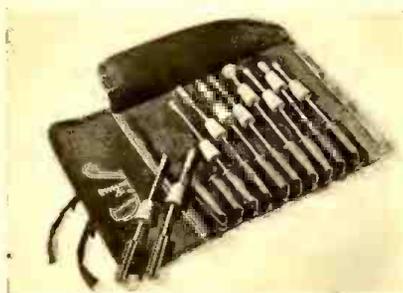
★ Cement for fastening car-top aerials without drilling the roof. Part No. 45-2345. Loading coil No. 32-2417 for eliminating the effects of a number of powerful stations being received simultaneously. Coil will also reduce the sensitivity on the BC band so it should not be used indiscriminately. Third item is a line of midget type electrolytic condensers. Philco Radio & Television Corp., Philadelphia, Pa.—**RADIO TODAY.**

Weston tube checker



★ Modernistically styled tube tester in counter and portable models. Anti-obsolence circuit and switching system. Large English reading meter. Emission tests on specific load basis—general type tubes, battery tubes, diodes. Noise test jack for audible test. Hot cathode leakage. Direct line voltage test. Rotator type reference index on counter model. Exclusive "key number" classification system reveals data on any tube. Model 733. Weston Electrical Instrument Corp., Frelinghuysen Ave., Newark, N. J.—**RADIO TODAY—see also advt. p. 29.**

Auto radio tuning wrenches



★ Set of 10 wrenches for aligning and tuning the set in car or on the bench. Flexible shaft and adjustable bushing. No need to remove shaft and head from car. Complete in leatherette roll—net \$4.50. J. F. D. Mfg. Co., 4111 Ft. Hamilton Pky., Brooklyn, N. Y.—**RADIO TODAY—see also advt. p. 65.**

G-E battery sets

★ Eight battery sets have been announced by G-E. 5 and 7 tube models for 6 and 2 volt—both consoles and table types. Illustrated is the FB-72



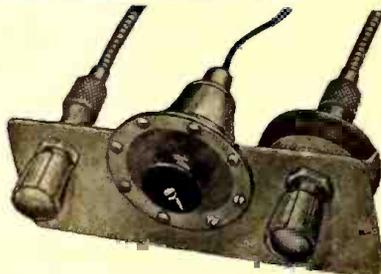
7-tube 2-volt model. Colorama tuning dial with push-button switch for conserving battery power. Class B output stage of 2.2 watts. Slide rule tuning scale—tune 540-18,000 KC. PM dynamic speaker. General Electric Co., 1285 Boston Ave., Bridgeport, Conn.—**RADIO TODAY—see advt. Cover III.**

RCA record player



★ Deluxe record player with self-starting motor. Plays 10 and 12-inch discs. Bass compensated volume control. Cabinet of walnut veneer. Can be used with any make of radio set. Model R-94—list \$28.95. RCA Mfg. Co., Front & Cooper Sts., Camden, N. J.—**RADIO TODAY.**

Auto radio control head



★ Control unit with all ratios self contained. Easily adjustable to fit openings on all instrument panels without drilling or filing. Airplane type dial—used with clock or counter-clockwise tuning condenser. Escutcheons to match 1935-6-7 cars. Star Machine Mfrs., Inc., 1371 E. Bay Ave., Bronx, N. Y.—**RADIO TODAY—see also advt. p. 59.**

15 & 20 watt amplifiers

★ PA-12 is a 15-watt amplifier with 115 DB gain. Mike and phone inputs—tone and gain controls. Available as portable unit with mike and speaker—code PAP-12.

Model PA-200 is a 20-watt amplifier with frequency range of 25-16,000 cycles. Gain of 135 DB. Mike and phono inputs. Other amplifiers are also included in the line. Sound Products, 704 N. Curson Ave., Los Angeles, Calif.—**RADIO TODAY.**

Audio frequency oscillator



★ Fixed frequency source of audio frequency for audio test work and bridge measurements. Output of 35 milliwatts at 500 and 5000 ohms impedance. Compensated for drift due to humidity or temperature variations. 110 AC operation. Size 5 x 9 x 8 inches. Triumph Mfg. Co., 4017 W. Lake St., Chicago, Ill.—**RADIO TODAY.**

Sound level meter

★ Portable type sound level meter for measuring acoustical level of all sounds—calibrated range 24 to 130 DB. Non-directional type of microphone. Weighs only 23½ pounds complete with batteries. Designed for industrial applications, including "sound" and broadcast studio work. Model 759-A—net \$195. General Radio Co., 30 State St., Cambridge, Mass.—**RADIO TODAY.**

Allmeter instrument



★ AC-DC operated instrument measuring AC and DC volts 0/15/150/750. On AC non-reactive to 10 megacycles. Capacity ranges .001 to .1, .1-32 mfd. Resistance—.03 to 500, 500 to 5 megs. Inductance 2-1000 henries. Housed in wrinkle-finish shield cabinet. Weight 4 pounds. Superior Instruments Corp., 136 Liberty St., New York, N. Y.—**RADIO TODAY—see also advt. p. 69.**

Sectionalized cabinet rack

★ Cabinet constructed of knock-down sections for relay-rack type panels. Will accommodate any number

WHY DO INCREASING THOUSANDS OF DEALERS Pay Cash FOR RAYTHEON TUBES?

**NOT BAD INTEREST
ON YOUR MONEY!**

THE AVERAGE DEALER INVESTS HIS MONEY IN RAYTHEON 7 TIMES A YEAR

SAVING HIMSELF 5% OR MORE EACH TIME

$7 \times 5\% = 35\%$ SAVINGS

BY BUYING RAYTHEON For CASH

RAYTHEON CORPORATION
NEWTON, MASS.

IT costs upwards of 5% to "sell" tubes to dealers on any of the "no investment" finance plans. Who pays the 5% or more? In most cases it is you—the dealer. Under other policies the dealer is asked to get it from the customer. But it comes out of the dealer's "hide" either way.

RAYTHEON protects your investment because thousands of dealers know that (1) RAYTHEON is the tube with great consumer acceptance and fair list prices that insure faster turnover... (2) RAYTHEON is the tube that is not sold at cut prices, insuring full profit... (3) RAYTHEON is the tube that needs no apologies or explanations, due to its long established quality.

These facts are the reasons why increasing thousands of dealers and service men are finding RAYTHEON the safest and most profitable tube investment.

ASK YOUR JOBBER

See Raytheon display Booth No. 91, Radio Parts Manufacturers' National Trade Show, Stevens Hotel, June 10, 11, 12 and 13

RAYTHEON

RAYTHEON PRODUCTION CORPORATION

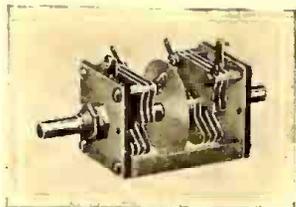
420 Lexington Ave., New York, N. Y. 445 Lake Shore Drive, Chicago, Illinois
 55 Chapel Street, Newton, Mass. 555 Howard Street, San Francisco, Cal.
 415 Peachtree Street, N. E., Atlanta, Ga.

RAYTHEON IS THE MOST COMPLETE LINE—ALL TYPES OF GLASS, OCTAL BASE, METAL, RESISTANCE AND AMATEUR TRANSMITTER TUBES

NEW THINGS

of panels by adding sections. Base and top assemblies, back sections provide a finished appearance. Side sections with louvres for ventilation. Base—list \$4.50, top—\$2.50. 3½ inch high x 14½ side wall section \$2 pair. Other sizes up to 21 inches. Bud Radio Inc., 1937 E. 55th St., Cleveland, Ohio—**RADIO TODAY**.

Dual trim-air condensers



★ 10 double-section air type condensers with Isolantite insulation. Dual bearings. Supplied with circular shield or square shield between units. Available in capacities from 10 to 140 mmfd. 25 mmfd. model illustrated—list \$2.70. Shaft extends at rear for ganging. Allen D. Cardwell Mfg. Corp., 81 Prospect St., Brooklyn, N. Y.—**RADIO TODAY**.

6-volt and AC receiver

★ Special radio designed for use by automobile trailer fans. Operates from the AC line or 6-volt storage battery. Permits use of AC when trailer is in camp, thereby saving trailer battery. Battery used when away from power line connections or while rolling. Philco Radio & Television Corp., Tioga and C Sts., Philadelphia, Pa.—**RADIO TODAY**—see also advt. p. 6

Bogen Communo-Phone



★ Loudspeaking interphone system for offices, homes, warehouses, etc. Master type instrument illustrated—operates with 4 other stations. Volume control on back of instrument. PM type speaker acts as mike when talking. Works on AC and DC. Momentary type switch for talking. Model 55C with master units—list \$105. David Bogen Co., Inc., 663 Broadway, N. Y.—**RADIO TODAY**.

Bakelite attachment plug cap

★ Spring-action type plug with blades that assure positive contact at all times—even in worn outlets, thereby eliminating the possibility of radio interference. Approved by Underwriters' Laboratories. Practically unbreakable. Allied Mercantile Co., Irvington, N. J.—**RADIO TODAY**.

Circuit-breaker



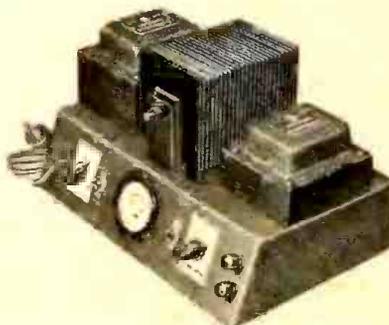
★ Magnetic circuit breakers for protecting tubes and amplifier equipment. Available in models for 50 milliamperes to 35 amps. Time-delay type trips in about 1/100 of a second on short circuit—5 seconds to 8 minutes on 125 per cent load. Instantaneous type may be adjusted for plus or minus 20 per cent of rating. Heinemann Electric Co., Trenton, N. J.—**RADIO TODAY**.

High-fidelity speaker



★ Console cabinet loudspeaker for high-fidelity reproduction. Acoustically treated cabinet scientifically coordinated with speaker unit. Power capacity of 10 watts—voice coil impedance 15 ohms. Substantially uniform frequency response from 60-10,000 cycles. Size 33½ x 28¼ x 16½ inches—finished in black with aluminum trim. List \$133.20. RCA Mfg. Co., Front and Cooper Sts., Camden, N. J.—**RADIO TODAY**.

Power pack for testing 6-volt radios



★ Power pack for operation from AC line for testing and demonstrating farm and auto radio sets. Primary circuit breaker and meter. Surge sup-

pressor protects rectifier and condensers. Junior model for 1 radio, Standard for 2. DeLuxe type continuously variable voltage from 2 to 8 at 15 amps.—will handle 4 auto radios. Electrostatic power transformer shield. Standard Transformer Corp., 850 Blackhawk St., Chicago, Ill.—**RADIO TODAY**—see also advt. p. 55

Mobile sound system



★ 25-watt sound system for mobile use. Beam power output tubes. Electronic mixer for 1 mike and 1 phonograph input. Dual diaphragm crystal hand mike. Two 12-inch PM speakers. Operates from 6-volts DC—power pack for 110 AC. Heavy-duty type generator. Economizer battery supply control. Model 132-BAC. Operadio Mfg. Co., St. Charles, Ill.—**RADIO TODAY**—see also advt. p. 49

Dynamic microphone



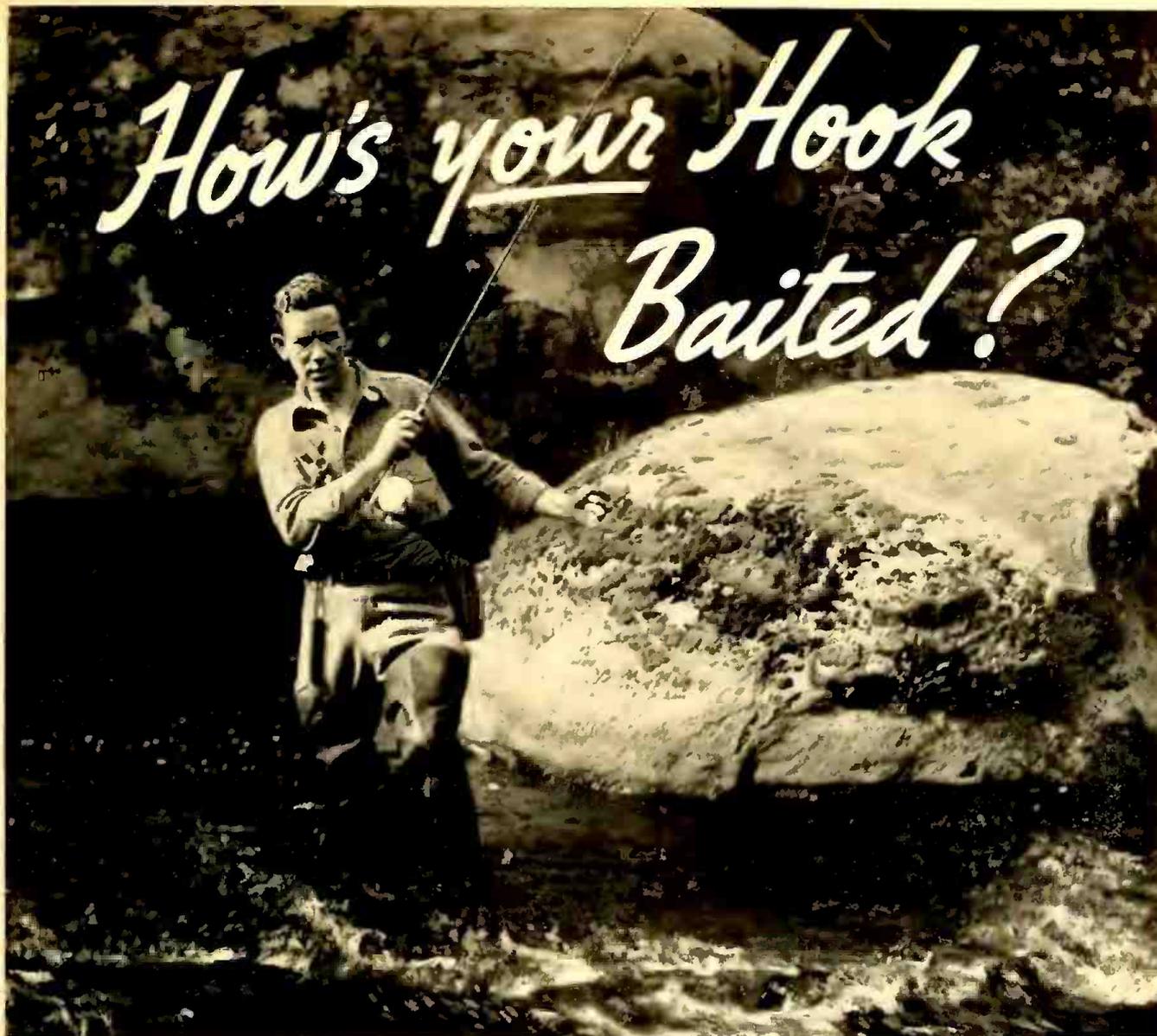
★ High-quality dynamic microphone with high or low impedance outputs. Permanent magnet excitation. Level approximately minus 55 DB. Immune to temperature changes—semi-directional. Close or distant pick-up. Weight 1½ pounds. Model D-5 50 ohms—list \$27.50. D-5-T 10,000 ohms—list \$32.50. American Microphone Co., 1915 S. Western Ave., Los Angeles, Calif.—**RADIO TODAY**—see also advt. p. 69

Hickok tube tester



★ Combination tube tester and multi-range meter. Tube tester scale in English and calibrated in micromhos of mutual conductance. Scale length over 4 inches. Reads volts, ohms, mls, mfd., decibels, capacity leakage, and inductance. AC voltmeter accurate on power line and audio frequencies. Housed in walnut case. Model AC-51X. Hickok Electrical Instrument Corp., Cleveland, Ohio.—**RADIO TODAY**—see also advt. p. 65

How's your Hook Baited?



SYLVANIA QUALITY TURNS MANY A TUBE CUSTOMER INTO A NEW-SET SALE!

The customer who occasionally drops in to buy tubes represents a fair tube profit. But he's more than that! He's potentially a customer for a new set—a refrigerator or other home appliance—and occasional new parts . . . if you, and the tubes you sell him, *treat him right.*

Sylvania tubes have *got* to be dependable. Over 80 separate manufacturing tests protect you against business-killing kick-backs . . . they "go to bat" for you every time on performance. Fair list prices, and the kind of technical and sales helps that build profits, make Sylvania a

thoroughly profitable line of tubes to carry.

Make Sylvania's acquaintance—and you'll find Sylvania will make bigger, better tube profits for you. For complete sales and technical information write to the Hygrade Sylvania Corporation, Emporium, Pa.

SYLVANIA

T H E S E T - T E S T E D R A D I O T U B E

NEW THINGS

Radio frequency relay

★ AC and DC operated relays for use in radio frequency circuits. Mica-lex insulation insures against leakage of RF currents. Silver 15 ampere contacts. Available in D.P.D.T. single break and D.P.D.T. with additional S.P.S.T. contacts. List \$25 and \$27.50. Ward Leonard Electric Co., Mount Vernon, N. Y.—RADIO TODAY

30-watt booster amplifier

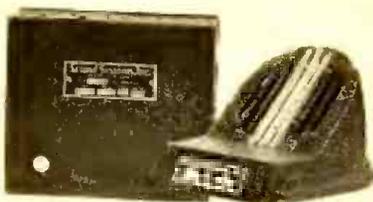


★ Beam power stage for boosting output of 15 and 30 watt sound systems. Amplifier operates as Class A—output of 30 watts. Sturdily built with all parts enclosed. Connections made through flexible cables and plugs. Type A-3041. Electro-Acoustic Prods. Co., Fort Wayne, Ind.—RADIO TODAY—see also advt. p. 47

Store demonstration antenna system

★ Noise reducing antenna providing simultaneous reception for several sets. Covers short-wave and broadcast band reception. Six coupling transformers used for 6 sets—additional ones can be added but require use of switch. Licensed by Amy, Aceves & Kin, Inc. Dealer net \$18.50. L. S. Brach Mfg. Corp., 55 Dickerson St., Newark, N. J.—RADIO TODAY.

S.S.I. interphone



★ Two-way intercommunicating system operating from AC or DC current. Master unit provided with volume control. Push button to talk. Crystal type speaker-mike. Uses standard 2-wire transmission line—length up to 1,000 feet. Model C-50—2 units—list \$35. Sound Systems, Inc., 6445 Carnegie Ave., Cleveland, Ohio—RADIO TODAY.

Sliding scale world time converter

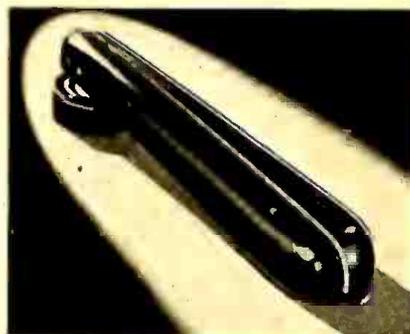
★ Slide rule type device for finding time in all parts of the world. Tells whether the day is the same, yesterday, or tomorrow and all in one operation for any particular location. List 50 cents. W. H. Reeks, 5653 N. Talman Ave., Chicago, Ill.—RADIO TODAY.

Oscilloscopes with 2-inch tube



★ Model 530 oscilloscope illustrated with 2-inch tube featuring vertical amplifier, intensity and focus controls, 60-cycle sweep. List \$29.95. Model 535 at \$49.95 has vertical and horizontal amplifiers, variable sweep circuit, synchronizing sweep control and return sweep eliminator. Mounted on antique bronze panel and in oak carrying case. Supreme Instruments Corp., Greenwood, Miss.—RADIO TODAY.

Magnetic phono pick-up



★ Streamlined phonograph pick-up with magnetic unit. Critically damped armature eliminates peaks and transient response. Compensated bass response and smooth tracking. Vibration free bearings. Vertical and lateral stops. Easy needle changing—80° pivoting of vertical bearing. Type 40-A-5—list \$8. Webster Electric Co., Racine, Wis.—RADIO TODAY.

Lafayette amplifier

★ 5-watt utility amplifier with 2 low gain and 1 high gain inputs. 130 DB gain with 5 meg input impedance. Photoelectric cell input for industrial applications. Mixer-fader, tone control, jeweled pilot light, speaker field power supply. Model 245-A—net \$13.35. Wholesale Radio Service Co., 100 Sixth Ave., New York, N. Y.—RADIO TODAY—see also advt. p. 45

Simpson set tester



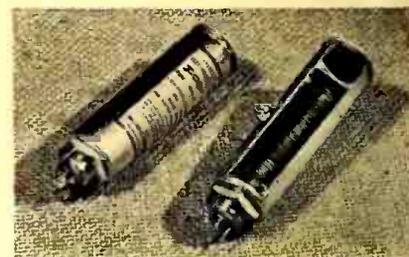
★ Super-sensitive set tester with 20,000 ohms per volt movement. Voltage ranges 2½/10/50/250/1000 for DC. Same AC ranges at 1000 ohms per volt.

Current readings as low as 1 micro-ampere. Ranges up to 250 mills and 25 amps. Resistance readings from ½ ohm to 40 megohms. 4½-inch meter. Model 250. Meter sold separately—model 28 foundation meter. Simpson Electric Co., 5216 W. Kinzie St., Chicago, Ill.—RADIO TODAY.

Mike in pastel shades

★ Amperite microphones are now available in pastel shades for night club use, etc. Chrome and eggshell finish at \$1 additional on list. Other pastels at \$2 matched to most samples. Amperite Corp., 561 Broadway, New York, N. Y.—RADIO TODAY—see also advt. p. 41

Wet electrolytic condenser



★ Electrolytic condenser with shortest average path to all points on anode surface. Hard rubber liner eliminated—reduces power factor and removes possibility of sulphide causing corrosion. New construction allows for more capacity per unit volume. Micamold Products Co., 1087 Flushing Ave., Brooklyn, N. Y.—RADIO TODAY.

High fidelity reproducers



★ Line of high-fidelity speakers enclosed in scientifically designed cabinet employing bass reflex and peri-dynamic principles. Bass reflex provides response down to 30 cycles with natural reproduction. Peri-dynamic principles control objectionable resonance. Models available with single speakers and dual employing tweeter. Model C illustrated—high fidelity to 10,000 cycles—single 15-inch unit—list \$105.50. With tweeter speaker \$212. Jensen Radio Mfg. Co., 6601 S. Laramie Ave., Chicago, Ill.—RADIO TODAY.

Crosley auto radio

★ Single-unit auto radio using 5 octal-based tubes. No remote cables to connect—uses direct drive with large illuminated dial. Automatic volume control. Mounts behind instrument panel. Matches antenna circuit of any car. Fiver Roamio—list \$19.99. Crosley Radio Corp., 1329 Arlington St., Cincinnati, Ohio—RADIO TODAY.

PREVIEW **DOUBLE FEATURE**

BOOTHS 40-41, RADIO PARTS SHOW, CHICAGO

THE *New*
MODEL 773
**WESTON
TUBE CHECKER**

... Companion to Model 772
Equally Outstanding!



Features:

1. Big, easy-reading, sensitive meter.
2. Noise test . . . each electrode.
3. New, exclusive WESTON rapid-reference tube charts.
4. Perfected emission type tester . . . tests tubes under standardized load resistance . . . individually tests all electrodes. Cathode leakage test.
5. Neon short check, each electrode, while tubes are hot.
6. Tests metal, glass, spray shield, "MG" tubes . . . has spare socket.
7. Exclusive WESTON circuit . . . wired for rotating filaments . . . *obsolescence forestalled!*
8. Handsome, polished, light-weight, solid-wood cases . . . finest construction . . . luggage handles.
9. Size, styling same as Model 772.
10. Furnished in individual carrying case, in combination case for use with 772, or in counter type case.
11. Striking design and finish, modern knobs and 3-color panel, electrode switches grouped for convenience.
12. Outstanding in operating simplicity and dependability. Another LEADER!

Model 773 in solid, polished-wood carrying case. Also sold in counter case shown below . . . as well as in combination case for use with Model 772, 20,000 ohms-per-volt Analyzer. A perfect combination.



A *New*
**CONCEPTION IN
COUNTER TUBE SELLERS!**

Entirely different! Commands instant attention in this striking, polished solid-wood case. Conveys to customers the impression of true, scientific accuracy. Instrument also fits the single and combination carrying cases. Quickly interchangeable. *Note the new Weston rotator-type tube chart. You 'spot' your tube instantly. Charts easily replaceable.*

See Model 773 at the show, or get your preview by mail today! Just return the coupon.

Weston Electrical Instrument Corporation,
597 Frelinghuysen Avenue, Newark, N. J.

Send data on Model 773.

Name _____
Address _____
City _____ State _____

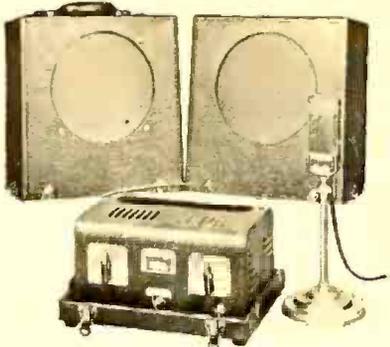
WESTON Instruments can be purchased under the WESTON deferred INVESTMENT PLAN!

NEW THINGS

Magic ball display

★ AC-DC operated display for window display. Consists of a large crystal ball which becomes transparent when a person approaches. Inside a 5½-inch platform with a spotlight shining on it—small objects can be placed on platform. Operated by radio waves. List \$125. Teletouch Magic Mirror Corp., 37 W. 54th St., New York, N. Y.—RADIO TODAY.

Portable sound system

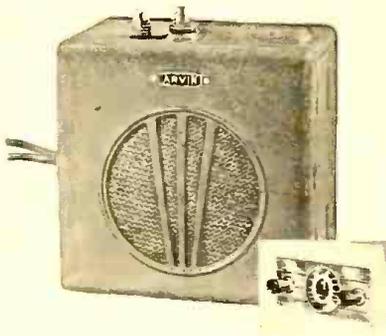


★ 12-watt portable type PA system in single carry case. Dual speakers—weight 44 pounds. 4-stage high gain amplifier—2 electronic mixer inputs. Multiple outlet for additional speakers. Model PA-712. Webster Chicago, 5622 Bloomingdale Ave., Chicago, Ill.—RADIO TODAY—see also advt. p. 43

Auto aerials

★ Complete line of antennas for use on autos. Whiskbroom type with over 50 feet of wire. Vacuum cup insulator. Cardoor antenna for fastening to hinge. Other types available in highly polished dural or aluminum. Electronic Specialties Corp., 1623 S. Hill St., Los Angeles, Calif.—RADIO TODAY—see also advt. p. 59

Arvin auto radio



★ Low-priced 6-tube auto radio with matching instrument panel or universal controls. 3-gang tuning condenser—5-inch dynamic speaker. Single-unit set. Case finished in taupe morocco. Model 9A—list \$29.95. Noblitt-Sparks industries, Inc., Columbus, Ind.—RADIO TODAY—see also advt. p. 21

Centralab tone switch

★ Tone switch for replacement use. Small size for use in limited space. Available in single pole 2 and 3 posi-



tions, 2 pole 2 position. Common terminal insulated from shaft. Rating 1 amp. at 6 volts. Useful also for test equipment, phono switch, etc. Centralab, 900 E. Keefe Ave., Milwaukee, Wis.—RADIO TODAY—see also advt. p. 64

Emergency current supply outfits

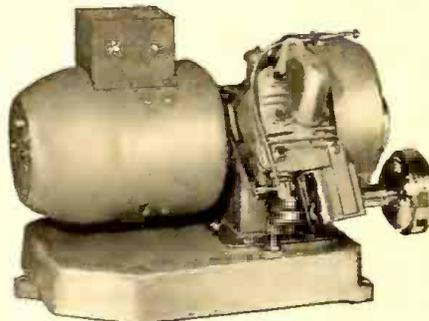
★ Hydro-electric generator for use when regular power supply fails. Automatic operation starts generator immediately when outside power fails—operates from water pressure provided by city water system. Designed for signal and clock systems, hospitals, motion picture theaters, etc. Sizes for all uses. Stanley & Patterson, 150 Varick St., New York, N. Y.—RADIO TODAY

DuMont oscilloscope



★ Low-cost 3-inch cathode ray oscillograph. Horizontal and vertical amplifiers flat from 30-30,000 cycles. Sweep circuit for observation of waves from 15-30,000 cycles—synchronizing provision. Model 164—net \$54.50. Allen B. DuMont Labs., Inc., Upper Montclair, N. J.—RADIO TODAY.

Farm power plant



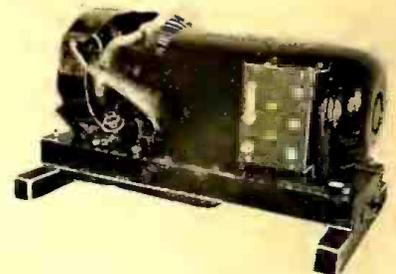
★ AC 300-watt generator with 200-watt 7½-volt winding for charging batteries. Operates 12-16 hours on one gallon. 4-cycle single cylinder gas engine. 4-pole AC generator—1800 r.p.m. Mechanical governor maintains constant speed. Pulley for driving small farm machines. Red Top Gas-O-Letric

plnt. Pioneer Genemotor Corp., 466 W. Superior St., Chicago, Ill.—RADIO TODAY—see also advt. p. 57

Radolek amplifier

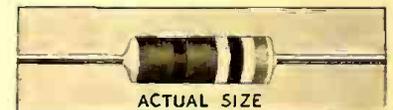
★ 8-watt high-gain amplifier for use with all types of mikes. High impedance phono input. Beam power output stage. Essentially flat frequency response from 50-9000 cycles. Field supply for 1000-ohm speaker. Radolek Co., 601 W. Randolph St., Chicago, Ill.—RADIO TODAY.

Kato Quietlight



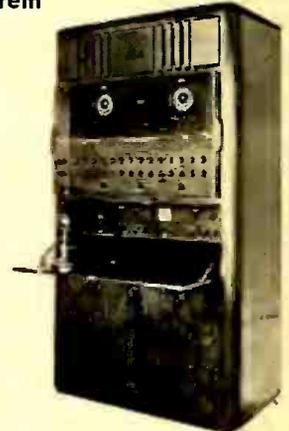
★ Gas engine operated power plant supplying 300 watts AC and 200 watts DC at 6 volts for battery charging. Operates at 1800 rpm. ½ hp. air cooled engine. Self-cranking from 6-volt storage battery. Weight 125 pounds complete. Model 21A. Kato Engineering Co., 727 S. Front St., Mankato, Minn.—RADIO TODAY—see also advt. p. 58

Ceramic sealed resistors



★ Insulated resistors of the ceramic sealed type in ¼ and ½ watt sizes. Pre-formed ceramic case—tinned copper wires—brass cap on the end of solid molded carbon resistance unit. Insulation withstands 3000 volts AC without breakdown. Colors applied to pure white surface easy to read. Available in units from a few ohms to several megohms. Erie Resistor Corp., Erie, Pa.—RADIO TODAY—see also advt. p. 33

Program sound distribution system



★ Complete program distribution system designed for school use. Has 2 all-wave radios, automatic record ejector type phonograph, microphone. Talk back circuit between classroom and control cabinet. Handles up to 60 speakers. Holtzer-Cabot Electric Co., Boston, Mass.—RADIO TODAY.

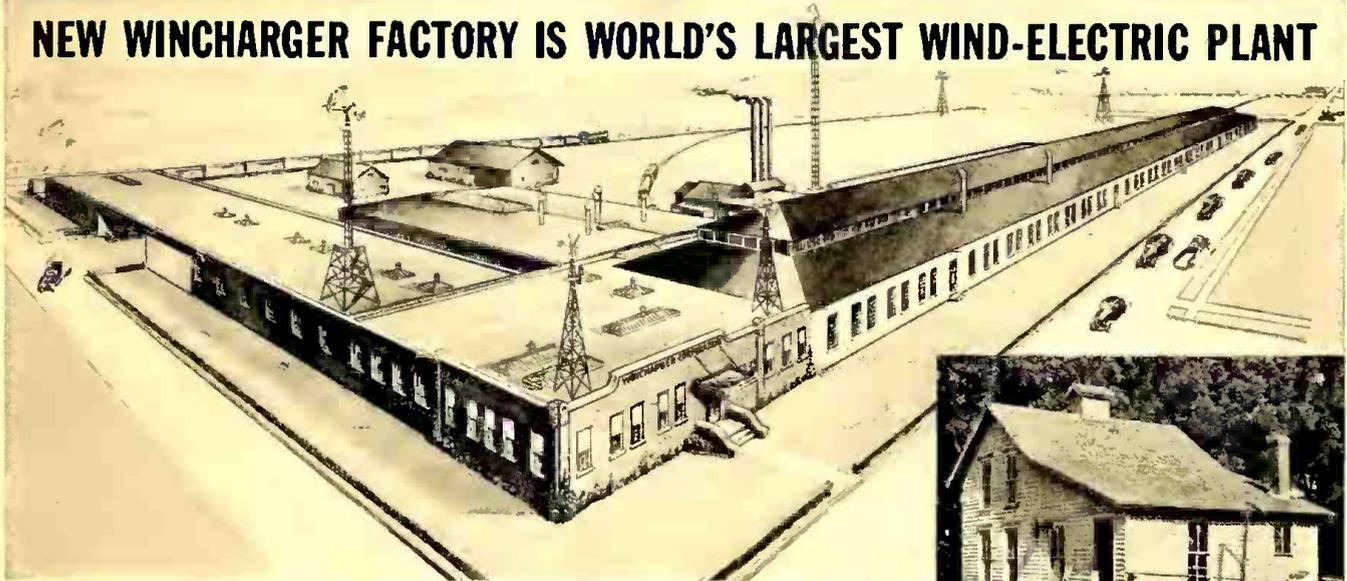
DEALER PROFIT PLAN PROVES HUGE SUCCESS!

WINCHARGER

REG. U. S. PAT. OFF.

FORCED TO TRIPLE MANUFACTURING FACILITIES!

NEW WINCHARGER FACTORY IS WORLD'S LARGEST WIND-ELECTRIC PLANT



DEALERS are wildly enthusiastic over Wincharger's profitable new simplified merchandising program! Sales have jumped to a new high! Increased manufacturing facilities were needed *immediately*—so Wincharger has moved into this great new factory, with *three times* the space and equipment available in our former plant!

New dealers everywhere are stocking Winchargers and displaying them with farm radios, *ready to cash in* on the great \$100,000.00 national advertising campaign soon to be released. Manufacturers and distributors are making preparations to profit by this intensive promotion of 6-volt farm radios. The entire radio industry is looking forward to the *biggest year* in history for 6-volt farm radio sales!

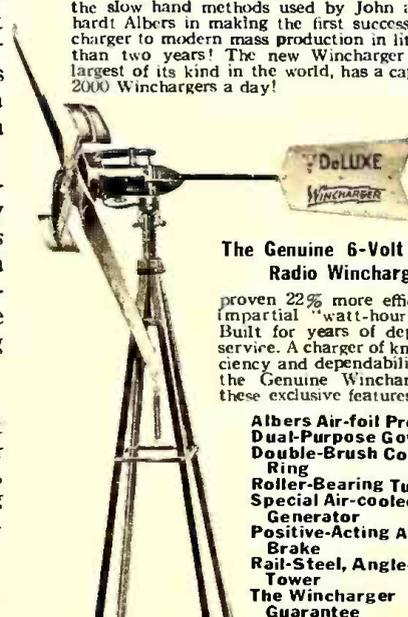
Five million of America's 6,280,000 farm homes need new radios NOW! More than 4 million of these homes

are located away from the high line. *These non-electrified homes can best depend on Wincharger for radio power.* The 6-volt DeLuxe Radio Wincharger is the farmer's most dependable, least expensive source of electric current for radio. Wincharger is the key to this fertile farm market—a market which needs more than 4 million new farm radios RIGHT NOW!

And the great new Wincharger factory is our pledge to the radio industry that we will be able to *meet all demands* promptly and efficiently, with an even higher quality of guaranteed performance than that which has earned the unanimous endorsement of leading radio manufacturers!

Wincharger also manufactures the 32-volt Giant Wincharger farm power plant for practical, complete electrification of the farm, and the Hi-Way Wincharger for charging truck and trailer batteries on the highway.

From this little woodshed workshop to the huge factory shown above in a short ten years! From the slow hand methods used by John and Gerhardt Albers in making the first successful Wincharger to modern mass production in little more than two years! The new Wincharger factory, largest of its kind in the world, has a capacity of 2000 Winchargers a day!



The Genuine 6-Volt DeLuxe Radio Wincharger

proven 22% more efficient by impartial "watt-hour" tests. Built for years of dependable service. A charger of known efficiency and dependability. Only the Genuine Wincharger has these exclusive features:

- Albers Air-foil Propeller
- Dual-Purpose Governor
- Double-Brush Collector Ring
- Roller-Bearing Turntable
- Special Air-cooled Generator
- Positive-Acting Auto Brake
- Rail-Steel, Angle-Iron Tower
- The Wincharger Guarantee

Let the Wincharger Corporation help you get your share of sales in the rich new "wind-electric" market. For complete details, write

WINCHARGER CORPORATION SIOUX CITY, IOWA

"SPRING CLEAN-UP" OF HOME RADIOS

Getting ready for good summer Radio Reception

★ CLEAR, LIFE-LIKE radio reception is obtainable only when the set, antenna, and other components are in the pink of condition. And this is where the wide-awake serviceman comes into the picture.

Like any other instrument or piece of apparatus, a radio set should be periodically checked and serviced. While the owner usually thinks only of tubes wearing out, there are numerous other items which may need adjustment and repairs.

Antennas are often damaged by the winter snows and spring winds. Sometimes the soldering at the aerial is defective from the outset—and now poor splices are causing excessive noise. Again, many owners have been too careless or lazy to install a good aerial—or perhaps they continued using the old wire after they bought an all-wave set.

Spring and summer is the ideal time to overhaul or replace the antenna. Customer should be sold an all-wave antenna if he has an all-wave set or even is planning on getting one. For after all, a good aerial will work on the new set when he gets it, and in the meantime the customer will be getting the best out of his old set. It will not be necessary to erect another new antenna when the customer purchases a new set, if he already has a modern one.

Many times the owner feels that his set is entirely satisfactory for the present at least. But usually the set is in a poor state of maintenance; tubes need replacement, alignment is needed, the dial slips, knobs are loose. These are but a few of the things that the owner cusses about to himself but seldom bothers calling in a serviceman.

Most of the things are minor—they take but a few minutes to correct. And as long as the owner can get some sort of reception, he won't call in a serviceman.

Serviceman must go after

Answer is that the serviceman must go after this business—it really exists—there is lots of it—and the set-owners will pay a reasonable price to have their sets in good operating condition, if the serviceman will contact them.

How to get this business? Several of the manufacturers are sponsoring "check-up campaigns." Or if the dealer wishes he can organize his own promotions. With the summer slack setting in he is in a position to offer lower prices providing he still makes a profit. A chart promoting this "Spring Clean-up" idea was published on p. 13 of the April RADIO TODAY—it can be used in the window, or if the dealer wishes he can have photo-offset prints made and use it as a mailing piece.

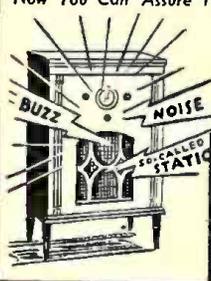
But tubes, and the set itself, are not all that go wrong with a radio installation. Nearby electrical devices may cause trouble. Appliances often go bad; some of them are noisy even when new. A "spring clean-up" should also feature noise elimination due to these external causes. Bad fixtures, sockets, lamps, cords, and the like are usually found quite easily—in many cases the set owner knows that a certain lamp or electric iron cord raises the devil with the set. But he keeps putting it off—somehow or other the serviceman is seldom called in for fear that it will cost many dollars to correct the fault.

Fixed price

A fixed price for a thorough examination will overcome any fear that the owner has concerning excessive costs. He then knows that certain things will be done for his money. Of course, the serviceman should make it clear that fee does not cover such things as tubes, new antennas, or other than minor adjustments on the set.

(To page 49)

Apartment House Owners ATTENTION!
Now You Can Assure Noise-Free Radio Reception For All Your Tenants

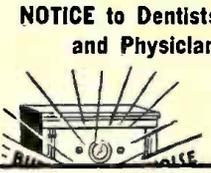


Many of your tenants undoubtedly have electrical appliances which are causing serious interference in their own radios as well as in the radios of other apartments. A great deal of radio noise that is blamed on the "location" or on the radios themselves is due to this.

We have recently purchased a new instrument which enables us to find and eliminate such radio noise quickly and inexpensively. Just telephone us for further information.

WE ELIMINATE ALL TYPES OF RADIO INTERFERENCE

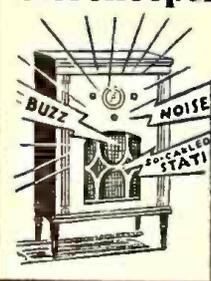
NOTICE to Dentists and Physicians! Is Your Electrical Equipment Causing RADIO INTERFERENCE In Your Neighborhood?



Electro-medical and dental equipment causes an untold amount of radio noise. Frequently, the radio noise caused by the motor or vibrator on a drill or some electrical therapeutic can be heard for several blocks from your office, interfering seriously with reception on your own as well as on your neighbors' receiving sets. Not only is this unnecessary because it is now so quickly and inexpensively eliminated, but it may even prove detrimental to your practice if people learn that their radio office.....Thanks to a newly to your office, test every piece show you then and there exactly to interference. Just telephone us

WE ELIMINATE ALL TYPES OF RADIO INTERFERENCE

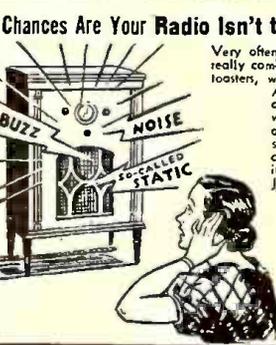
Notice to Storekeepers! Is Your Electrical Equipment Causing RADIO INTERFERENCE In Your Neighborhood?



Many pieces of electrical equipment around the average store are likely to cause serious radio interference in radio receiving sets for several blocks around. Not only is this unnecessary because it is now so quickly and inexpensively eliminated, but it may even prove detrimental to your business if radio owners suspect that the noise they hear originates in your store

WE ELIMINATE ALL TYPES OF RADIO INTERFERENCE

Chances Are Your Radio Isn't to Blame for the Noises You're Hearing



Very often, radio receivers are blamed for producing noise that is really coming from home electrical appliances such as refrigerators, toasters, washing machines, oil burners or even from poor wiring.

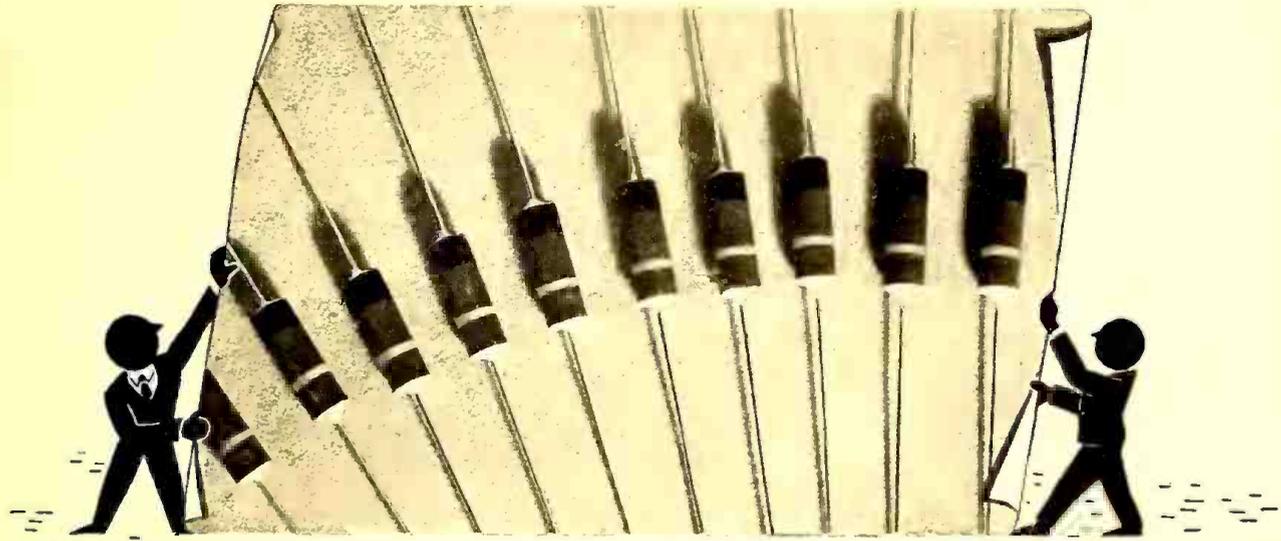
And frequently such noises are thought to be the result of outside "static". Now, thanks to a unique new instrument, we can come to your home and make a thorough check of any radio noises. If any such interference exists we can show you exactly how much disturbance it is actually causing in your radio—and we can show you exactly how it can be eliminated, quickly and inexpensively.

Just telephone us for further information.

WE ELIMINATE ALL TYPES OF RADIO INTERFERENCE

Series of post cards for stimulating a noise elimination campaign in any neighborhood. These cards are available from Sprague Products Co., North Adams, Mass.

Announcing + + + + **ERIE** Ceramic-Sealed **INSULATED RESISTORS**



Erie "Ceramic-Sealed" resistors are 100% insulated with a pre-formed ceramic shell and sealed at the ends with moisture-proof, high-dielectric ceramic cement. At each end the cement permanently bonds itself to the ceramic insulating case, the tinned-copper terminal wire, and to the brass cap covering the end of the resistance pin.

You can pull, twist and turn the resistor with the terminal wires held stationary without damaging the ceramic seal or open-circuiting inside the resistor; and in addition, the entire unit is made mechanically stronger by sealing the ends.

We ask that you compare the Erie "Ceramic-Sealed" Insulated Resistors with the type you are now using. A letter to us will bring you a generous supply of samples to test in your own laboratory.



- THE ONLY RESISTOR WITH THESE SUPERIOR FEATURES**
- 1** 100% sealed with moisture-proof, high-dielectric ceramic material that bonds to the ceramic shell, terminal wire and metal cap.
 - 2** Impossible to loosen tinned-copper terminal wires from resistance unit by longitudinal pull or side thrust.
 - 3** Pre-formed ceramic shell that will withstand 3,000 volts A. C. without breakdown, insures positive, uniform insulation.
 - 4** Electrical characteristics of unit, uniformly good without the ceramic-seal at ends, now better than ever.
 - 5** Color bands painted on white shell do not lose their brilliance; are easy to read under all types of artificial illumination.

ERIE RESISTOR CORPORATION
 CARBON RESISTORS AND SUPPRESSORS AUTOMATIC INJECTION MOLDING
 TORONTO **ERIE, PENNSYLVANIA** LONDON

SELLING RECORDS

Tunes from new films already recorded

★ DISC MAKERS have kept up with theater presentations of popular tunes.

When the movie people get today's songs into the ears of millions of fans, it's the right moment to sell records of the same hits. Even before dealers learned about promotion hook-ups with films, they noticed that buyers often said "I want to get a record of a song I heard at the show."

The following films will be important to the record dealer, and under the titles are listed, by tunes, the latest dope on new recordings available:

THE HIT PARADE (REPUBLIC)

"Sweet Heartache"

BRUNSWICK 7869—Phil Regan vocal
BRUNSWICK 7871—Emery Deutsch and orchestra
DECCA 1202—Frances Langford
DECCA 1249—Reggie Childs and orchestra
MELDTONE 7-05-01—Sterling Young and orchestra
VICTOR 25571—Fats Waller without vocal
VICTOR 25580—Fats Waller vocal
VDCALION 3510—Ed Fitzpatrick and orchestra

"Last Night I Dreamed of You"

BRUNSWICK 7864—Phil Regan vocal

"Love Is Good for Anything That Ails You"

BLUEBIRD 86848—Johnny Hamp and orchestra
BRUNSWICK 7841—Art Shaw and orchestra
DECCA 1180—Glen Gray and Casa Loma orchestra
VARIETY 5124—Zim Arthur and orchestra
VICTOR 25514—Eddy Duchin and orchestra
VDCALION 3476—Vincent Travers and orchestra

"Was It Rain?"

BLUEBIRD 86848—Johnny Hamp and orchestra
BRUNSWICK 7841—Art Shaw and orchestra

BRUNSWICK 7864—Phil Regan vocal
DECCA 1180—Glen Gray and Casa Loma orchestra
MASTER 110—Lew White and orchestra
VICTOR 25538—Richard Himber and orchestra
VDCALION 3476—Vincent Travers and orchestra

MELODY FOR TWO (WARNER BRDS.)

"Melody for Two"

BLUEBIRD 86805—Shep Fields and Rippling Rhythm
DECCA 1192—Henry King and orchestra
DECCA 1247—James Melton vocal
VARIETY 508—Barry Wood's Mellow Melody

"September in the Rain"

BLUEBIRD 86805—Shep Fields and Rippling Rhythm
BRUNSWICK 7850—Jan Garber and orchestra
DECCA 1192—Henry King and orchestra
DECCA 1215—Dick Robertson and orchestra
DECCA 1247—James Melton vocal
MELDTONE 7-04-11—Johnny Johnson and orchestra
VARIETY 508—Barry Wood's Mellow Melody
VICTOR—25526—Guy Lombardo and Royal Canadians

NEW FACES OF 1937 (RKD)

"Love Is Never Out of Season"

BLUEBIRD—Ozzie Nelson and orchestra
VICTOR—Tommy Dorsey and Orchestra

"Our Penthouse on Third Avenue"

BLUEBIRD—Ozzie Nelson and orchestra
BLUEBIRD—Harriet Hilliard vocal
VICTOR—Tommy Dorsey and orchestra

"Peckin'"

BLUEBIRD—Ozzie Nelson and orchestra

PROMOTION EXTRAORDINARY

★ Interest in symphonic records has been notably strengthened by this year's nation-wide tour of the Philadelphia Symphony Orchestra.



Josephine Tuminia, San Francisco opera star, has recorded two "coloratura swing" songs for Decca.

These concerts, which involved the famous conductors Eugene Ormandy, Jose Iturbi, and Leopold Stokowski, began last month and will end May 22 with an appearance in White Plains, N. Y.

Special studio train carried the famous orchestra through a concert series in 25 chief cities of the United States and Canada. Sponsored by RCA Victor, the tour was crowded with broadcast events, tie-ins with record dealers and distributors, special advertising stunts, etc. Charles O'Connell, Victor record exec, made two appearances.

Advance tour was made by Peter Hugh Reed, record authority and music critic, who contacted local civic and music groups as well as dealers and jobbers.

OPERA ON FILM

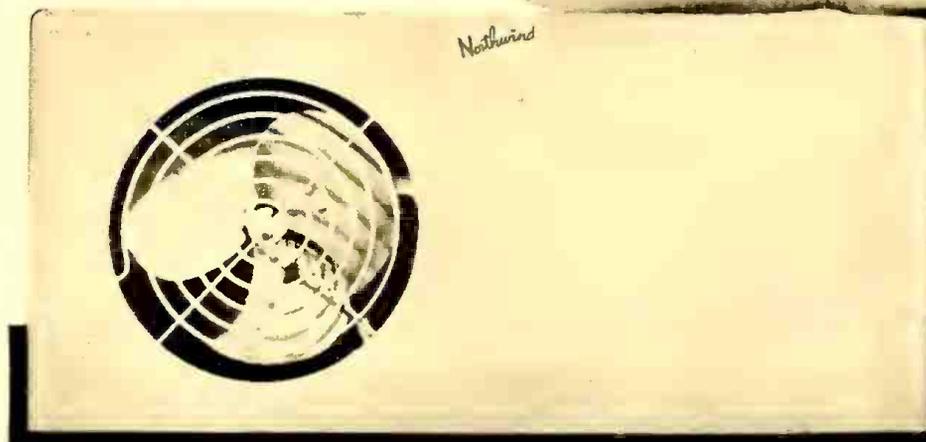
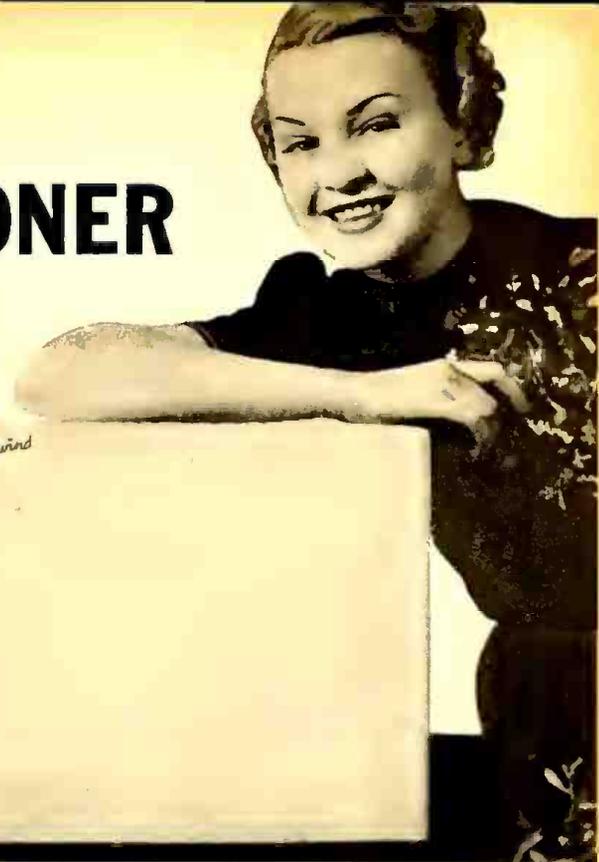
★ Synchro-opera, which is the business of supplying parts of an operatic performance by the use of sound film, has received further discussion from Benjamin F. Miessner, noted inventor. The device recently attracted attention in Moscow, Russia, where an American conductor, Vladimir Shavitch, got the musical directors interested.

"I proposed this scheme several years ago," writes Mr. Miessner, "for touring opera companies carrying along only the singers, with the orchestra and chorus packed up in a few tins of roll film. Even the scenery could be carried along in the form of a few colored slides projected from the rear of the stage on a translucent screen."



Bon voyage to the Philadelphia Symphony on another tour, RCA-sponsored in the interest of records. Left to right, Raymond Rosen, Joseph Iturbi and Tom Joyce of RCA, Mayor Wilson of Philadelphia, famed conductor Leopold Stokowski.

Now a 7 phase* SUMMER AIR-CONDITIONER retailing at \$189⁵⁰



- * 1. REFRIGERATES
- 2. DEHUMIDIFIES
- 3. CIRCULATES
- 4. VENTILATES
- 5. ELIMINATES NOISE
- 6. CLEANS
- 7. DEODORIZES

NORTHWIND assures relief from humid heat in Home, Apartment, Hotel and Office

Now—you can keep cool and comfortable on the hottest, stickiest day—inexpensively. **NORTHWIND**, a genuine air refrigerator, cools—cleans—dehumidifies—even deodorizes—and quietly circulates 300 cubic feet of air every minute. Yet **NORTHWIND** costs only \$189.50.

Pleasantaire's **NORTHWIND** always maintains a healthful, pleasant relationship between inside and outside temperatures—never the cold movie palace clamminess doctors advise against. And for the first time in air conditioning you get exclusively in **NORTHWIND**, at no extra cost, the Odae scientific air freshening which deodorizes and

purifies every cubic foot of air.

The compact Pleasantaire unit is attractive—portable—easy to install—costs but a few cents a day to operate. No specialized knowledge of air conditioning necessary. Entirely self-sufficient—you need not consult a building contractor before buying or installing. Unconditionally guaranteed for one year—thoroughly tested by Electrical Testing Laboratories and by power companies.

Pleasantaire has scheduled largest summer production in air conditioning history but heavy distributor commitments have already been made.

Northwind is leading the field in sales this year. The following concerns have already invested in the Northwind—see it in their showrooms and join the Pleasantaire Profit Parade.

Arizona, Tucson—F. R. King; Alabama, Birmingham—Consolidated Mills; California, Los Angeles—Felix, Krenper & Co.; District of Columbia, Washington—Washington Refrigeration Co.; Georgia, Albany—Roop Snow; Atlanta—American Associated Companies; Electric Supply Company; Logan Bleckley, Jr.; Columbus—Radio Sales & Service Co.; Indiana, Fort Wayne—Lehman Engineering Co.; Vincennes—Klemeyer Lumber Co.; Illinois, Chicago—The Harry Alter Company; Commonwealth Edison Company; Moline—Lofgren's; Missouri, Kansas City—Moto Trunk Company; K-B Supply Company; Florida, St. Petersburg—Todd, Hyatt & Co.; Iowa, Sioux City—Warren Electric Company; Kansas, Norton—Horney's Appliance; Wichita—Southwest Distributors Company; Maryland, Baltimore—Hutzler Brothers; Massachusetts, Boston—Blue Hill Spring Water Co.; Minnesota, Minneapolis—Northern States Power Co.; St. Paul—Crane Co. of Minnesota; New Jersey, Trenton—Binder Electrical Supply Co.; Ohio, Toledo—La Salle & Koch Company; Oklahoma, Ardmore—88 Electric Company; Hobart—Hal Brown; Oklahoma City—Nokol Automatic Heating Company; Pennsylvania, Pittsburgh—Kaufman's; Philadelphia—Motor Parts Company; Wilkes-Barre—Popky Freezer Company; North Carolina, Coker Air Conditioning Company (See S. C.); South Carolina, Hartsville—Coker Air Conditioning Company; Tennessee, Nashville—Lebeck Brothers; Memphis—Reichman-Crosby Company; Plough, Inc.; Texas, Big Spring—Big Spring Motor Company; Fort Worth—Sam Kelly; Houston—Readers Wholesale Distributors; Longview—J. G. Pegues Motor Company; West Virginia, Bluefield—Flat Top Supply Company; Wheeling—Greer & Laing; Wisconsin, Oshkosh—Wilson's; Utah, Salt Lake City—C. A. Hamal Furniture Company; Ohio, Columbus—Radio Electric Service Co.; Louisiana, New Orleans—Interstate Electric Co.

GET YOUR SHARE—ACT AT ONCE

Contact our nearest representative or wire direct to

PLEASANTAIRE

CORPORATION

304 East 45th Street • • • New York City

Pleasantaire Export Dept., 304 East 45th St., New York
Cable Address—Carmuse N. Y.,—U. S. A.

YES! WE'RE WORKING



STEWART

DAY & NIGHT... BUT-

Stewart-Warner's Sensational NEW RADIO INVENTION Has Not Been Released to Anyone

• If you've heard rumors and reports about the startling new radio development just perfected by Stewart Warner engineers—let us set you straight. Some of the rumors are true. There is such an invention—a revolutionary development that will be startling both in effect on radio itself—and on dealer profits.

It has been perfected in Stewart Warner's own laboratories. It has been under development for many months—is now complete and in production. It is not just "automatic tuning" dressed up—but a sensational development that goes far beyond anything radio has known before. BUT

No Dealer or Distributor Is Getting "Advance Deliveries"

Although Stewart Warner is now in production, no one is being favored—no one allowed to "beat the gun" with this revolu-

tionary development. The new Stewart Warner models will be made available to all distributors and all dealers at the same time—early in July. That is ample time to meet your early-season needs—and we have been more concerned with giving you a truly perfected product than with snatching a handful of pre-season sales.

No Other Manufacturer Is Licensed to Make This Invention

Regardless of claims or rumors, no device or development in other brands of radio is the same thing Stewart Warner is bringing out. Developed in locked rooms within our own laboratories, this development has been kept secret even our own employees. It is, we believe, the biggest sensation in radio, and the final development in its field—and it is exclusive with Stewart Warner!

Arrange NOW for your Stewart-Warner distributor to include you in his "first announcement" of this new radio sensation—early in July.

STEWART-WARNER CORPORATION
CHICAGO, ILLINOIS

WARNER

PROMOTING SOUND

- installations made in new spots
- trends in amplifier applications

FIREMEN USE INTER-STATION PA SYSTEM

★ The Poughkeepsie, N. Y., fire department has just replaced the usual bell-ringing system in its various fire houses, with microphone and amplifying equipment which enables an announcer at the master station in Fire Headquarters to broadcast alarms to all stations by voice.

Equipment of the master station also includes a local oscillator, which generates a loud note for the purpose of advising all stations that an alarm is about to be sent out, after which the announcer then broadcasts the alarm.

As all equipment was designed for 24-hour operation, and is on at all times, the system is always available for immediate use. Individual station equipment was made as entirely fool-proof as possible, without external switches or controls of any sort. A red ruby pilot light, glowing at all times, is the only indicator necessary for insuring the proper operating condition of station equipment.

One remote speaker unit is located

at Police Headquarters in order to acquaint the police with activities of the fire department, so that there may be complete cooperation between the two departments at all times.

"Such a system can easily be adapted to the requirements of the fire departments of the largest cities, with an attendant increase in speed in transmission of fire alarms," explains H. J. Tauber of Wholesale Radio Service Co., Inc., which provided the equipment for the Poughkeepsie installation. "All reports to date have been very favorable, and all members of the police and fire departments have been enthusiastic over the advantages offered by this type of equipment."

UNTAPPED MARKET

★ That sound men may be missing some bets in summer business is revealed in a situation dug up by S. Ruttenberg, Amperite president.

Atlantic City, the report goes, which has more summer hotels than any other resort in the country, seemed to have only a very few sound installations last year. Yet at Can-

ada Lake, a small resort near Gloversville, N. Y., there were over forty sound installations made during the same season. This was because in the latter area a sound man, Harold Weiner, of the Fulton County Distributing Co., energetically went out after the Gloversville business.

To get the summer entertainment-spot business, Ruttenberg's firm is presenting a series of microphones in pastel shades—lighter colors which will attract night club owners.

NEW GROUP OF SOUND PROSPECTS

★ Sales possibilities of hearing-aid and sound reinforcement systems are outlined by M. N. Beitman, engineer for the Radolek Co., 601 West Randolph St., Chicago:

During the past few years these systems have found application in theaters, churches, and other institutions. News, that many hearing-aid systems installed in various places were very successful in serving the hard-of-hearing, spread by word of mouth, the best form of advertising. Adaptability and need for simple public address group hearing-aids were finally realized by all and today every church, every theater, every meeting place is a ready customer.

Essentially a hearing-aid system consists of a source of input, a good quality, carefully filtered amplifier and the headphones with associated individual control boxes. If sound reinforcement is needed, a number of loud speakers may also be connected to the amplifier's output. The equipment being of standard construction is very inexpensively priced and is easy to install and operate.

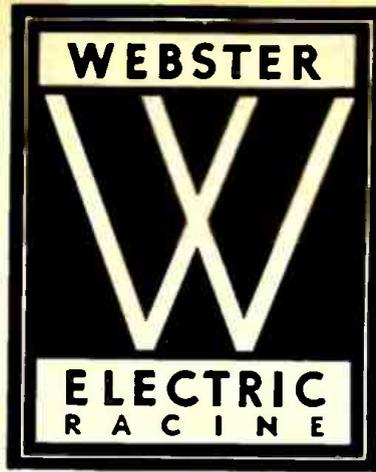
There are also provisions for phonograph and radio input. This permits the hard-of-hearing to enjoy recorded and broadcasted programs. Speeches and announcements may be super-imposed on a musical background with the aid of the amplifier mixer control.

The amplifier is a standard 15 watt unit having an additional filter to eliminate all possibility of objectionable hum interference, and a special output transformer. Any number of headphones, up to 60, may be used with this system.

The control boxes are intended to be mounted on the arms of the seats that are selected to serve the hard-of-hearing. Each box incorporates a volume control and plug-in jack for the headphones which are of the featherweight type.



Flash! Something new. Fire alarms are now announced through loud-speakers in all Poughkeepsie (N.Y.) fire-houses, from this Headquarters dispatcher. Isn't your local department a prospect for this new use of "sound"?



*Hold
Everything!*

Distributors, jobbers and dealers who expect to become factors in the sale of Sound Equipment, must choose wisely if they are to realize full profit from this big-money market . . . They *must* assume leadership in their communities . . . Leadership demands quality . . . Quality commands price . . . Price makes for profit . . . *Hold everything* until you see what you are to be offered in quality, design, performance, price, merchandising policies, cooperation, and intensive advertising in—

Webster Electric Sound Equipment

HERE'S EVERYTHING YOU WANT TO KNOW ABOUT SOUND EQUIPMENT

Specifications for Complete Sound Systems—Compiled by Radio Today

Model No.	List price complete	Type	Rated watts	Dist. at rated watts	Max watts	Total DB gain	No. of inputs	No. of mixers in addit. to master and size	No. of speakers	Type speaker	Can addit'l speakers be used	Type mike	No. of tone controls	No. of tubes	Output tubes	Class output amp.	Phono turn-table	Line watts	Carried in stock	Power source
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—"Knight."	\$ 49.95	Fixed	8	7%	10	69	2	2	1-8 1/2	ED	Yes	Car	1	3	1-6L6	AB	No	56	Yes	AC
A12009	60.00	Port.	8	7%	10	69	2	2	1-8 1/2	ED	Yes	Car	1	3	1-6L6	AB	No	56	Yes	AC
A12010	80.00	Fixed	8	7%	10	110	2	2	1-8 1/2	ED	Yes	Cry	1	4	1-6L6	AB	No	64	Yes	AC
A12012	73.50	Fixed	8	7%	10	110	2	2	1-8 1/2	ED	Yes	SV	1	4	1-6L6	AB	No	64	Yes	AC
A12013	89.50	Fixed	8	7%	10	110	2	2	1-8 1/2	ED	Yes	Vel	1	4	1-6L6	AB	No	64	Yes	AC
A12014	91.50	Port.	8	7%	10	110	2	2	1-8 1/2	ED	Yes	Cry	1	4	1-6L6	AB	No	64	Yes	AC
A12015	127.50	Fixed	18	7%	25	115	2	2	2-12	ED	Yes	Cry	1	6	2-6B5	AB	No	90	Yes	AC
A12019	120.00	Fixed	18	7%	25	115	2	2	2-12	ED	Yes	SV	1	6	2-6B5	AB	No	90	Yes	AC
A12020	137.50	Fixed	18	7%	25	115	2	2	2-12	ED	Yes	SV	1	6	2-6B5	AB	No	90	Yes	AC
A12021	152.50	Fixed	18	7%	25	115	2	2	2-12	ED	Yes	SV	1	6	2-6B5	AB	No	90	Yes	AC
A12022	180.00	Port.	25	7%	30	118	2	2	2-12	ED	Yes	SC	1	6	2-6B5	AB	No	90	Yes	AC
A12023	187.50	Fixed	25	7%	30	118	3	3	2-12	ED	Yes	2-Cry	1	9	2-6L6	AB	No	150	Yes	AC
A12024	207.50	Fixed	25	7%	30	118	3	3	2-12	ED	Yes	2-SV	1	9	2-6L6	AB	No	150	Yes	AC
A12025	237.50	Fixed	25	7%	30	118	3	3	2-12	ED	Yes	2-Vel	1	9	2-6L6	AB	No	150	Yes	AC
A12026	215.00	Mob.	20	7%	30	115	3	3	2-12	PM	Yes	2-SC	1	9	2-6L6	B	Yes	NS	6 V.	
A12030	200.00	Fixed	35	7%	40	121	3	3	2-12	ED	Yes	Cry	1	9	2-6L6	AB	No	175	Yes	AC
A12036	185.00	Fixed	35	7%	40	121	3	3	2-12	ED	Yes	2-Cry	1	9	2-6L6	AB	No	175	Yes	AC
A12038	215.00	Fixed	35	7%	40	121	3	3	2-12	ED	Yes	2-SV	1	9	2-6L6	AB	No	175	Yes	AC
A12039	250.00	Fixed	35	7%	40	121	3	3	2-12	ED	Yes	2-Vel	1	9	2-6L6	AB	No	175	Yes	AC
A12040	175.00	Fixed	15	7%	20	113	2	2	2-12	PM	Yes	2-SC	1	6	6-6B5	AB	No	NS	6 V.	
A12041	167.50	Fixed	15	7%	20	113	2	2	2-12	PM	Yes	SV	1	6	6-6B5	AB	No	NS	6 V.	
A12042	185.00	Fixed	15	7%	20	113	2	2	2-12	PM	Yes	Vel	1	6	6-6B5	AB	No	NS	6 V.	
A12043	200.00	Fixed	15	7%	20	113	2	2	2-12	PM	Yes	SC	1	6	6-6B5	AB	No	NS	6 V.	
A12061	270.00	Fixed	60	7%	60	122	3	3	4-12	PM	Yes	2-Cry	1	11	2-6L6	AB	No	275	Yes	AC
A12062	250.00	Fixed	60	7%	60	122	3	3	4-12	PM	Yes	2-SV	1	11	2-6L6	AB	No	275	Yes	AC
A12063	285.00	Fixed	60	7%	60	122	3	3	4-12	PM	Yes	2-Vel	1	11	2-6L6	AB	No	275	Yes	AC
A12064	315.00	Fixed	60	7%	60	122	3	3	4-12	PM	Yes	2-SC	1	11	2-6L6	AB	No	275	Yes	AC

Amplifier Co. of America—See amplifier listing.

Atlas Sound Corp., 1451 39th St., Brooklyn, New York—"Atlas."

AC-18 \$148.50 Fixed 15 3%

Autocrat Radio Co., 3865 N. Hamilton Ave., Chicago, Ill.—"Autocrat"

8 \$ 90.00 Port 7 NS 8

20-A 203.00 Port 20 NS 125

Bell Sound Systems, Inc., 61 E. Goodale St., Columbus, Ohio—"Bell"

M6 \$230.00 Mob 18 110

PA2C 121.50 Port 7.5 90

PA4C 175.00 Fixed-Port 20 NS 112

PA5C 270.00 Fixed-Port 30 NS 118

David Bogden Co., Inc., 663 Broadway, New York, N. Y.—"Bogden Supreme Fidelity"

PA10VT \$ 75.00 Port 6 49

PA12VT 98.50 Port 12 59

PA15VT 149.50 Port 15 59

PA18VT 134.50 Mob 16 59

PA20VT 191.50 Mob 24 39

PA24VT 209.00 Mob 24 39

PA28VT 225.00 Mob 24 39

PA30VT 330.50 Fixed-Port 30 29

PA32VT NS 330.50 Fixed 120 167

PA36VT 92.50 Port 6 49

PA40VT 122.50 Port 10 4

PA45VT 189.50 Port 15 39

PA50VT 165.50 Mob 16 59

PA55VT 185.50 Mob 16 59

PA60VT 259.50 Fixed-Port 30 2%

S. H. Couch Co., Inc., N. Quincy, Mass.—"Pum."

Custom built systems for schools from 15 to 150 classrooms.

CODES: Port—portable, Mob—mobile, ED—electric excited dynamic; Car—carbon, Cry—crystal, Dyn—dynamic, SC—sound cell, SV—relatron, A, A₁, AB, AB₁, AB₂, B—class operation of output tubes, NS—data not supplied.

AMPERITE VELOCITY MICROPHONES

Distinguished in Performance, Design, and Construction Used in Leading P.A. Systems

Considered by P.A. Men As the Greatest Values in Microphones Available Today.

PERFORMANCE!

"A magnificent instrument. Despite the climate here, results are marvelous and could not be bettered. I am sure." — D. Hopkins, Radliff Hotel, Singapore.

DESIGN!

"Your streamline mike is going over big with our trade. Congratulations on its fine design and performance." — R. Ruben Saugus, Mass.

CONSTRUCTION!

"We believe no other mike could take the punishment it has and still give such excellent reproduction." — Johnston P.A. Service, Oneonta, N. Y.

VALUE!

"The finest type microphone that I ever used. . . Please duplicate my order." — Ridley's P.A. Systems, Inc., Tulsa, Okla.

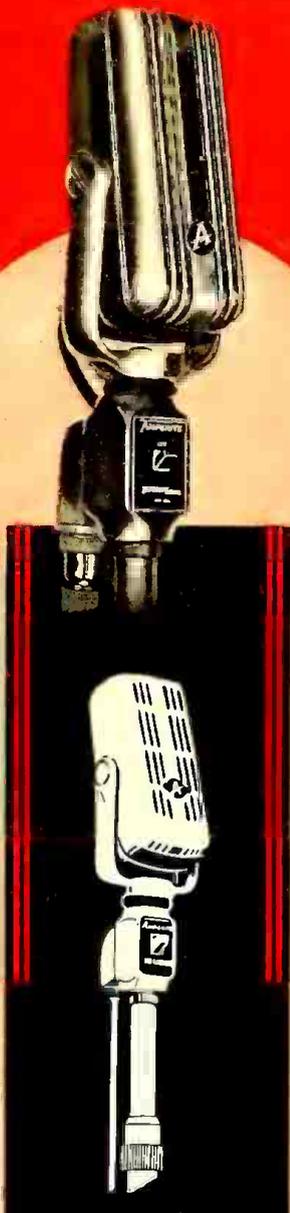
FEATURES

The Amperite Velocity is compact, streamline, modern. Embodies the latest technique in microphone design, featuring . . .

1. Output increased 6 DB.
2. Triple Shielded—against all RF or magnetic fields, entirely eliminating hum pickup.
3. Eliminates feedback troubles.
4. Excellent for close talking and distant pickup.
5. Acoustically designed to eliminate any possibility of cavity resonance.

A POPULAR AMPERITE VELOCITY \$22.00 LIST

A Velocity Microphone of very high excellence. Built to Amperite standards. Used for both speech and music with great success. No peaks. Flat response over audible range. Output—68 db. Triple shielded. Fitted with shock absorber and swivel bracket. MODEL RAL (200 ohms) with 8 ft. of cable; MODEL RAH (2000 ohms) high impedance, with 12 ft. of cable \$22.00 LIST CHROME OR EGG SHELL \$23.00 LIST



PASTEL COLORS on Microphones and Stands.

Amperite now furnishes microphones and stands in EGG SHELL or other pastel finishes to suit decorative schemes. The stands feature the patented positive, non-sliding clutch. Complete line of desk, banquet, floor and studio stands. Available in Chrome or Egg Shell at \$1.00 LIST extra per stand.

Write for Bulletin ST-66

LEADING MODELS

MODELS RBHn (High Impedance); RBMn (200 ohms); with cable connector and switch. \$42.00 LIST
 Chrome, or Egg Shell. \$43.00 LIST
 MODELS RBSn, RSHn, streamline design, slightly lower output than above, with switch only, \$32.00 LIST
 With cable connector. \$34.00 LIST

FINISHES: All microphones have the new standard gunmetal finish.

Chrome or Egg Shell, extra \$1.00 LIST

OTHER PASTEL SHADES extra \$2.00 LIST

FREE TRIAL OFFER TO STUDIOS

A Two Weeks' Trial Offer of the Amperite SR-80 Velocity is extended to broadcasting studios only. No deposit, obligation, or strings attached. Give the SR-80 an exhaustive two weeks' test. Then you may either return the microphone or keep it on our very attractive terms. Write, specifying either MODEL SR-80 (low impedance); or SR-80 H (high impedance). LIST \$80.00, with New Special Discount to Studios.

FREE: WINDOW DECAL

A striking window decal advertising your SOUND SERVICE. Size, 5 1/4 x 9 1/4, finished in 4 colors.

Free to Jobbers, Dealers, and Service Men. Write for it today.



AMPERITE JUNIOR

A "Jopel" Velocity of surpassing quality. Size of a match box. Ideal for lectures and specialty acts. Can be hidden under coat. Output constant with any position of the head. Transformer included in microphone case. MODEL 7J (200 ohms); or MODEL 7FH (2000 ohms) \$30.00 LIST



AMPERITE Company

561 BROADWAY, N. Y. U.S.A. ALKEM, NEW YORK

CABLE ADDRESS

VELOCITY

AMPERITE

MICROPHONES

EVERY BUSINESS, EVERY INSTITUTION, EVERY CORPORATION, HAS USE FOR "SOUND"!

Specifications for Complete Sound Systems—Compiled by Radio Today

Model No.	List price complete	Type	Rated watts	Dist. at rated watts	Max watts	Total gain	No. of inputs	No. of mikers in addit. to master and size	Type speaker	Can add'l speakers be used	Type mike	No. of tone controls	No. of tubes	Output tubes	Class output amp.	Phono turn-table	Line watts	Carried in stock	Power source
Electro-Acoustic Products Co., Div. Magnavox, 2131 Buena Vista Rd., Fort Wayne, Ind.—"Electro-Acoustic"																			
A1531	\$134.50	Port	15	7%	NS	11	2	2	ED	Yes	Cry	1	5	2-6B5	A	No	103	Yes	AC
A1702	59.50	Port	6	7%	NS	17	2	1-2	ED	No	Sw	1	3	1-6B5	A	No	56	Yes	AC
A1702	59.50	Port	6	7%	NS	17	2	1-8	ED	No	Sw	1	4	1-6B5	A	No	58	Yes	AC
A1702	145.00	Port	21	6%	NS	130	2	2	ED	Yes	Cry	1	6	2-6L6	A	No	95	Yes	AC
A1702	145.00	Port	21	6%	NS	133	2	2-12	ED	Yes	Cry	1	7	2-6L6	A	No	136	Yes	AC
A1702	187.75	Port	30	7%	NS	133	3	3	ED	Yes	Cry	1	7	2-6L6	A	No	136	Yes	AC
A1702	187.75	Port	30	7%	NS	133	3	3	ED	Yes	Cry	1	7	2-6L6	A	No	136	Yes	AC
A1702	255.25	Port	60	7%	NS	133	3	3	ED	Yes	Cry	1	7	2-6L6	A	No	270	Yes	AC
A1702	255.25	Port	60	7%	NS	133	3	3	ED	Yes	Cry	1	7	2-6L6	A	No	270	Yes	AC
A1702	178.00	Port	15	6%	NS	111	2	2	ED	Yes	Cry	1	5	2-6B5	A	No	131	Yes	AC
A1702	198.50	Port	25	10%	NS	95	2	2	ED	No	Cry	0	4	2-6A6	B	Yes	90	Yes	AC
Electronic Design Corp., 164 N. May St., Chicago, Ill.—"Vocutraph"—See also amplifier listing.																			
30-8P	...	Port	8	...	12	125	2	1-10	ED	Yes	Cry	2	...	...	...	...	...	Yes	AC
30-18P	...	Port	18	...	...	130	3	2-12	ED	Yes	Cry	2	...	...	...	...	...	Yes	AC
30-35P	...	Port	35	...	...	130	3	2-12	ED	Yes	Cry	2	...	...	...	...	...	Yes	AC
40-18P	...	Mob	20	...	...	130	3	2-10	ED	Yes	Cry	2	...	...	...	...	...	Yes	6V & AC
40-20P	...	Port	20	...	...	135	3	2-12	ED	Yes	Cry	2	...	...	...	...	...	Yes	AC
40-40P	...	Port	40	...	...	135	3	2-12	ED	Yes	Cry	2	...	...	...	...	...	Yes	AC
40-60P	...	Port	60	...	...	135	4	4-12	ED	Yes	Cry	2	...	...	...	...	...	Yes	AC
New line of equipment—complete data not available as we go to press.																			
Fairchild Aerial Camera Co., 6210 Woodside Ave., Woodside, L. I., N. Y.—"Fairchild-Proctor"																			
219	\$200.00	Port	10	4%	12	105	3	NS	ED	Yes	Cry-Dyn	1	7	2-6B5	A	No	110	Yes	AC
218A	600-1300	Fixed	15	2%	20	130	3	3	To specifications	...	...	0	12	4-45	AB	Yes	170	No	AC
Graybar Electric Co., 420 Lexington Ave., New York, N. Y.—"Western Electric."																			
Program Sound	\$810.00	Fixed	20	3%	30	105	5	...	PM	No	Dyn	0	6	2-300-A	A	Yes & radio	...	Stock	AC
System—Other systems to specifications.																			
Holtzer-Cabot Electric Co., 125 Amory St., Boston, Mass.—"Holtzer-Cabot"																			
100	NS	{Central	15	3%	20	109	3	To specifications	ED	16 spkrs.	Dyn	1	17	2-2A3	A	Yes	250	No	AC
101	NS	{System	60	3%	80	115	3	To specifications	ED	60 spkrs.	Dyn	2	29	8-2A3	A	Yes	600	No	AC
102	NS	{Paging	30	5%	35	85	1	0	PM	No	Cry	1	58	16-2A3	AB	Yes	1300	No	AC
P-30	NS	{Paging	30	5%	35	85	1	0	PM	No	Cry	1	6	2-6L6	A	No	110	Yes	DC
PD-10	NS	{Paging	10	5%	13	84	1	0	PM	No	Cry	1	7	4-48	A	No	110	Yes	DC
Lipman Engineering Company, 415 Van Braam Street, Pittsburgh, Penn.—"Lipman Full Range Sound Systems"																			
16	\$150.00	Port	15	5%	NS	NS	1	2-8	ED	Yes	Vel	1	5	2-2A5	AB	No	60	Yes	AC
17	187.50	Port	15	5%	NS	NS	1	2-10	ED	Yes	Vel	1	5	2-2A5	AB	No	75	Yes	AC
20	198.50	Port	15	5%	NS	NS	1	2-10	ED	Yes	Vel	1	5	2-2A5	AB	No	100	Yes	AC
21	225.00	Port	15	3%	NS	NS	2	2-10	ED	Yes	Vel	1	5	2-2A3	AB	No	125	Yes	AC
24	275.00	Port	20	3%	NS	NS	3	2-12	ED	Yes	Vel	1	9	2-2A3	AB	No	150	Yes	AC
TA47	600.00	{Theatre	10	3%	NS	NS	2	1-14	ED	Yes	None	0	5	2-47	A	No	NS	Yes	AC
TAA3	800.00	{Sound	18	2%	NS	NS	2	2-14	ED	Yes	None	0	8	2-2A3	AB	No	NS	Yes	AC
McMurdo Silver Corp.—See amplifier listings.																			
Miles Reproducer Co., Inc., 114 W. 14th St., New York, N. Y.—"Miles"																			
012 & 112	\$350.00	Port	50	3%	60	115	3	1	ED	Yes	Vel-Cry	1	11	4-6L6	AB	No	NS	No	AC
214	225.00	Port	20	3%	25	110	3	2-12	ED	Yes	Cry	1	6	2-6B5	A	No	NS	No	AC
215	225.00	Port	20	3%	25	110	3	2-8	ED	Yes	Vel	1	6	2-6B5	A	No	NS	No	AC
312	217.50	Port	20	3%	25	115	3	2-12	ED	Yes	Cry	1	6	2-6B5	A	No	NS	No	AC
512	247.50	Port	20	3%	25	115	3	2-12	ED	Yes	Vel	1	6	2-6B5	A	No	NS	No	AC
612	310.00	Port	30	3%	40	115	3	2-12	ED	Yes	Cry	1	8	2-6L6	AB	No	NS	No	AC
712	312.50	Port	30	3%	40	115	3	2-12	ED	Yes	Cry	1	8	2-6L6	AB	No	NS	No	AC
A2	45.00	Port	2	NS	NS	NS	NS	NS	ED	Yes	Vel	0	3	1-43	NS	No	NS	Yes	AC-DC
CA2	59.50	Port	2	NS	NS	NS	NS	NS	ED	Yes	Cry	0	4	2-43	NS	No	NS	No	AC-DC
WA2	45.00	Port	2	NS	NS	NS	NS	NS	ED	Yes	Cry	0	4	1-43	NS	No	NS	No	AC-DC
Also available for operation on 6 and 12 volts DC and 230 volts AC at increased prices.																			
Operadio Mfg. Co., Inc., St. Charles, Ill.—"Operadio"—See amplifier listing																			
108	\$83.00	Port	8	5%	15	126	2	1-10	ED	Yes	SV	1	4	1-6L6G	A	No	75	Yes	AC
110R	190.00	Port	20	5%	28	110	2	2-10	ED	Yes	Cry	2	6	2-6B5	A	No	125	Yes	AC
117	117.00	Port	14	5%	26	128	3	2-10	ED	Yes	SV	1	6	2-6V6G	AB	No	115	Yes	AC
124W	198.00	Port	22	5%	40	131	3	2-12	ED	Yes	Cry	2	7	2-6L6G	AB	No	125	Yes	AC
124W-VL	185.00	Port	22	5%	40	131	3	2-12	ED	Yes	SV	2	7	2-6L6G	AB	No	125	Yes	AC
132AC	205.00	Mob	25	5%	40	128	2	2-12	PM	Yes	Cry	1	6	2-6L6G	A	Yes	100	Yes	AC
132B	217.15	Mob	25	5%	40	128	2	2-12	PM	Yes	Cry	1	6	2-6L6G	A	Yes	100	Yes	AC
132BAC	240.00	Mob	25	5%	40	128	2	2-12	PM	Yes	Cry	1	6	2-6L6G	A	Yes	102	Yes	6V & AC
Pacnet Engineering Corp., 79 Madison Ave., New York, N. Y.—"Pacnet"																			
...	\$100 & up	Fixed	5-120	1%-5%	...	90-120	...	...	...	High fidelity equipment to fit requirements of installation	...	...	...	...	...	...	...	...	...

CODES: Port—portable, Mob—mobile, ED—electric excited dynamic; Car—carbon, Cry—crystal, Dyn—dynamic, SC—sound coil, SV—velotron, A, A1, AB, AB1, AB2, B—class operation of output tubes, NS—data not supplied.

**To Sound Specialists
Who Build Their Own...**



try to match this System

Model PA-712

- Portable... Entire system housed in one sturdy carrying case.
- Amplifier is 12-Watt, 4-Stage, 7-Tube high gain, beam type design.
- Two 10" P.M. Speakers with multiple arrangement for additional speakers

**LIST PRICE \$111⁰⁰
COMPLETE**

**Here's — the
VALUE — the
Too! 20
WATTER**



Model PA-20A

A Complete 20 Watt, two speaker system having a twin sound cell crystal microphone and a full length floor stand, all contained in 2 easily handled portable cases. Economically priced.

**THE OUTSTANDING
MULTIPLE STATION
INTERCOMMUNICATING
SYSTEM**

Plastic Cases . . . Choice of Colors

Outstanding in appearance and performance. Two-way communication between all points up to ten. This is the system to sell for repeat business. Ask for jobber demonstration.



Model OCM

Among new designs of moderate power, Model PA-712 rings the bell. It will handle audiences up to 1,500 people, is suitable for churches, lodges, theaters, convention dinners, etc.

Has the latest design features including beam tubes and multiple output arrangement for additional speakers.

Ultra portability... One case, 44 lbs., easily packed, easily carried. Easily set up too, and not critical on hum or microphonics.

At the price, Model PA-712 becomes a system that sound specialists can afford and can rent at a profit. It is modern in design too and professional looking throughout. Ask to see it at your local jobbers.

NEW 1937 CATALOG

Ready now . . . 16 pages of the latest in P. A. Systems, Sound Equipment and Accessories. It's FREE—Use Coupon.

- FULLY LICENSED
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WEBSTER-CHICAGO Section MY-9
5622 Bloomingdale Ave., Chicago, Ill.

Gentlemen: Without obligation please send me
 New 1937 Catalog. Information on Model PA-712.
 Information on Inter-Communication Systems. Information on Model PA-20A.

Name

Address

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200,000 SCHOOLS AND COLLEGES STILL REMAIN TO BE EQUIPPED WITH "SOUND"!

Specifications for Complete Sound Systems—Compiled by Radio Today

Model No.	List price complete	Rated watts	Dist. at rated watts	Max. watts	Total DB gain	No. of inputs	No. of mixers in addit. to master and size	No. of speakers and size	Types speaker	Can add'l speakers be used	Type mike	No. of tone controls	No. of tubes	Output tubes	Class output amp.	Phono turntable	Line watts	Carried in stock	Power source
Radio Receptor Co., Inc., 251 W. 19th St., New York, N. Y.—"Radio Receptor"	\$140.00	7	2.5%	9	80	1	0	1-8	ED	No	Car	3	5	2-2A5	A	No	90	Yes	AC
PT-7	310.00	15	2.5%	18	75	1	0	2-8	PM	No	Car	3	6	2-2A3	A	No	100	Yes	AC
PT-15	425.00	15	2.5%	18	125	4	4	4-8	PM	No	Dyn	3	8	2-2A3	A	Yes	130	No	AC
PT-25																			
Radolek—see amplifier listings.																			
RCA Mfg. Co., Front & Cooper Sts., Camden, N. J.—"RCA"	\$225.20	12	3.5%	25	110	2	0	2-12	ED	Yes	Vel	2	6	2-42	A	No	165	Yes	AC
12-12	140.30	12	3.5%	25	110	2	0	2-8	PM	Yes	Dyn	2	6	2-42	A	No	165	Yes	AC
12PM	207.35	20	6%	35	108	2	2	2-6	ED	Yes	Vel	2	8	2-2A3	A	No	160	Yes	AC
20	408.65	20	6%	35	108	2	2	2-12	PM	Yes	Dyn	2	8	2-2A3	A	No	160	Yes	AC
20PM	277.35	20	6%	35	108	2	2	4-6	ED	Yes	Vel	2	13	4-2A3	A	No	310	Yes	AC
40	668.55	40	6%	70	111	2	2	4-12	PM	Yes	Dyn	2	13	4-2A3	A	No	310	Yes	AC
40PM	437.95	40	6%	70	111	2	2	2-10	ED	No	Vel	2	8	2-2A3	A	No	160	Yes	AC
PG-62E	299.50	20	6%	35	108	2	0	1-10	ED	No	Car	2	4	1-53	B	No	55	Yes	AC
PG-63B	79.50	6	7%	8	75	2	0	2-10	ED	No	Vel	2	6	2-42	A	No	165	Yes	AC
PG-98	179.50	12	3.5%	25	110	2	0	2-10	ED	No	Vel	2	6	2-42	A	No	165	Yes	AC
Sears Roebuck & Co., Chicago, Ill.—"Silverstone"																			
5690	\$ 29.75	6	7%	8	NS	2	1	1-8	ED	No	Car	1	3	1-6B5	A	No	60	Yes	AC
5691	49.95	12	7%	15	NS	3	1	1-12	ED	Yes	SV	1	5	2-6B5	A	No	135	Yes	AC
5692	52.95	12	7%	15	NS	3	1	1-12	ED	Yes	Vel	1	5	2-6B5	A	No	135	Yes	AC
5693	89.50	30	7%	40	NS	4	3	1-12	ED	Yes	Vel	1	7	2-6L6G	A	No	145	Yes	AC
5694	89.50	30	7%	40	NS	4	3	1-12	ED	Yes	Cry	1	7	2-6L6G	A	No	145	Yes	AC
5697	69.95	20	7%	30	NS	4	2	1-12	ED	Yes	SV	1	6	2-6NG	A	No	140	Yes	AC
5698	80.25	20	7%	30	NS	4	2	1-12	ED	Yes	Cry	1	6	2-6NG	A	No	140	Yes	AC
Setchell-Carlson, Inc.—See amplifier listing.																			
Sound Systems, Inc., 6545 Carnegie Ave., Cleveland, Ohio—"S.S.I."																			
Pack 3	\$ 87.80	3	1%	3	87	2	1	1-8	ED	No	Cry	1	4	1-2A5	A	No	65	Yes	AC
Pack 7	125.00	7	1.4%	7	92	2	1	2-8	PM	Yes	Cry	1	6	2-2A5	A	No	90	Yes	AC
Pack 170	105.00	3.5	7%	3.5	87	1	1	1-5	ED	No	None	1	3	1-2A5	A	Yes	95	Yes	AC
Transformer Corp. of America, 69 Wooster St., New York, N. Y.—"Clarlton"—See also amplifier listing.																			
C-101	\$123.80	15	7%	20	124	3	2	2-11	ED	No	SV	1	6	2-6N6	A	No	120	Yes	AC
C-102	148.50	15	7%	20	124	3	2	2-11	ED	No	Vel	1	6	2-6N6	A	No	120	Yes	AC
C-103	132.50	15	7%	20	124	3	2	2-11	ED	No	Cry	1	6	2-6N6	A	No	120	Yes	AC
C-104	130.50	15	7%	20	124	3	2	2-12	ED	Yes	Vel	1	6	2-6N6	A	No	120	Yes	AC
C-105	109.00	15	7%	20	124	3	2	2-12	ED	Yes	Cry	1	6	2-6N6	A	No	120	Yes	AC
C-130	156.00	25	5%	35	121	4	4	2-12	ED	Yes	Vel	1	8	2-6L6	A	No	140	Yes	AC
C-131	164.50	25	5%	35	121	4	4	2-12	ED	Yes	Vel	1	8	2-6L6	A	No	140	Yes	AC
C-141	212.50	25	5%	35	121	4	4	2-12	ED	Yes	Vel	1	8	2-6L6	A	No	140	Yes	AC
C-142	221.00	25	5%	35	121	4	4	2-12	ED	Yes	Vel	1	8	2-6L6	A	No	140	Yes	AC
C-150	212.50	35	5%	50	122	4	4	4-12	ED	Yes	Cry	1	10	4-46	B	No	190	Yes	AC
C-152	220.50	35	5%	50	122	4	4	4-12	ED	Yes	Vel	1	10	4-46	B	No	190	Yes	AC
C-160	186.00	20	7%	30	125	4	4	2-12	PM	Yes	Cry	1	9	4-79	B	No	108	Yes	6V
C-162	198.90	20	7%	30	125	4	4	2-12	PM	Yes	Cry	1	9	4-79	B	No	108	Yes	6V
C-201	64.20	5	5%	8	116	3	2	1-8 1/2	ED	Yes	SV	1	4	1-6N6	A	No	60	Yes	AC
C-206	69.80	5	5%	8	116	3	2	1-8 1/2	ED	Yes	Cry	1	4	1-6N6	A	No	60	Yes	AC
C-208	84.90	5	5%	8	116	3	2	1-8 1/2	ED	Yes	Vel	1	4	1-6N6	A	No	60	Yes	AC
C-212	84.90	5	5%	8	116	3	2	1-8 1/2	ED	Yes	SV	1	4	1-6N6	A	No	60	Yes	AC
C-214	92.30	5	5%	8	116	3	2	1-8 1/2	ED	No	Cry	1	4	1-6N6	A	No	60	Yes	AC
C-216	99.80	5	5%	8	116	3	2	1-8 1/2	ED	No	Vel	1	4	1-6N6	A	No	60	Yes	AC
Turner Co.—See amplifier listings.																			
United Sound Engineering Co., 2233 University Ave., St. Paul, Minn.—"United Sound"																			
10C	\$102.00	10	10%	15	115	2	2	2-8	PM	Yes	Vel	1	5	1-6A5	B	No	50	Yes	AC
20C	155.00	20	5%	25	122	2	2	2-12	PM	Yes	Cry	1	8	2-6L6	AB	No	90	Yes	AC
150C	542.00	120	10%	170	135	4	4	8-12	PM	Yes	Vel	2	24	4-6L6	AB	Yes	620	Yes	AC
U10	81.30	10	10%	15	115	2	2	2-8	PM	No	Cry	1	5	1-6A5	B	No	50	Yes	AC
U20	295.00	20	5%	25	122	2	2	2-12	PM	No	None	1	8	2-6L6	AB	No	90	Yes	AC
U60	297.00	20	5%	25	122	2	2	2-12	PM	Yes	Vel	1	12	2-6L6	AB	No	320	Yes	AC
U120	197.00	20	4%	25	122	2	2	2-12	PM	No	Cry	1	8	2-6L6	AB	Yes	90	Yes	AC
U120	197.00	20	4%	25	122	2	2	2-12	PM	Yes	Vel	1	8	2-6L6	AB	Yes	90	Yes	AC
U240	169.00	20	4%	25	122	2	2	2-12	PM	Yes	Vel	1	8	2-6L6	AB	Yes	90	Yes	6V & AC
The Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.—"Webster-Chicago."—See also amplifier listing.																			
CL-7	\$ 175.00	7	4%	8	69	2	2	1-8 1/2	ED	No	Cry	1	3	1-6L6	A	No	57	Yes	AC
CPX-20	333.50	20	3.5%	30	125	2	2	2-12	PM	Yes	Cry	2	7	2-6L6	AB	No	155	Yes	AC
CPXA-30	353.00	30	2.6%	40	135	2	2	4-12	PM	Yes	Cry	2	12	4-2A3	AB	No	210	Yes	AC
CPX-4F-60	353.00	60	3.2%	60	143	4	4	4-12	PM	Yes	Cry	4	12	2-6L6	AB	No	210	Yes	AC
MP-530	215.00	30	2.8%	45	130	1	2	2-12	PM	Yes	Cry	1	5	2-6L6	AB	Yes	150	Yes	6-V

CODES: Port—portable, Mob—mobile, ED—electric excited dynamic; Car—carbon, Cry—crystal, Dyn—dynamic, SC—sound cell, SV—vibron, A, A₁, AB, AB₁, AB₂, B—class operation of output tubes, NS—data not supplied.



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Specifications for Complete Sound Systems—Compiled by Radio Today

Model No.	List price complete	Type	Rated watts	Dist. at rated watts	Max. watts	Total DB gain	No. of inputs	No. of mixers in addit. to master	No. of speakers and size	Type speaker	Can add'l speakers be used	Type mike	No. of tone controls	No. of tubes	Output tubes	Class output amp.	Phono turn-table	Line watts	Carried in stock	Power source
The Webster Co.—Continued																				
PA-20A	203.50	Port.	20	3.5%	30	125	2	2	2-12	PM	Yes	Cry	1	7	2-6L6	AB ₁	No	155	Yes	AC
PA-20B	188.00	Port.	20	3.5%	30	125	2	2	2-12	PM	Yes	SV	1	7	2-6L6	AB ₁	No	155	Yes	AC
PA-20C	210.00	Port.	20	3.5%	30	125	2	2	2-12	PM	Yes	SV	1	7	2-6L6	AB ₁	No	155	Yes	AC
PA-712	111.00	Port.	12	6.5%	13	127	2	2	2-10	PM	Yes	SV	1	7	2-6V6	AB	No	87	Yes	AC
PV-712	103.50	Fixed	12	6.5%	13	127	2	2	2-10	PM	Yes	SV	1	7	2-6V6	AB	No	87	Yes	AC
PV-912	119.50	Port.	12	7%	13	127	1	1	1-10	PM	Yes	SV	0	6	2-6V6	AB	Yes	85	Yes	AC
RPX-20	182.00	Fixed	20	3.5%	100	125	2	2	2-12	PM	Yes	Vcl	1	12	2-6L6	AB ₁	No	155	Yes	AC
RPX-A-30	240.50	Fixed	30	2.6%	40	135	2	2	2-12	PM	Yes	Vcl	2	12	2-6L6	AB ₂	No	230	Yes	AC
RPX-41-60	360.00	Fixed	60	3.2%	60	143	4	4	4-12	PM	Yes	Vcl	1	12	2-6L6	AB ₂	No	210	Yes	AC
VPX-20	160.00	Fixed	20	3.5%	30	125	2	2	2-12	PM	Yes	SV	1	7	2-6L6	AB ₁	No	155	Yes	AC
XL-7	73.50	Port.	7	4%	8	114	2	2	1-8½	ED	No	Cry	1	4	2-6V6	A ₁	No	64	Yes	AC
Webster Electric Co., Clark & DeKoven St., Racine, Wis.—See also amplifier listing.																				
ES	92.50	Port.	5	5%	7	110	1	1	1-8	PM	Yes	Cry-Vel	1	4	1-6A6	A	No	53	Yes	AC
12T	167.50	Port.	12	5%	15	110	3	3	2-10	ED	Yes	Cry-Vel	1	8	A	No	100	Yes	AC	
15T	192.50	Port.	15	3%	18	110	3	3	2-10	ED	Yes	Cry-Vel	1	8	A	No	100	Yes	AC	
20T	NS	Port.	20	3½%	25	125	3	3	2-12	PM	Yes	Cry-Vel	2	9	2-6L6	A	No	150	Yes	AC
MB-1	239.50	Port.	18	7½%	20	95	2	2	2-12	PM	Yes	Cry	1	6	4-6A6	B	Yes	108	Yes	6V & AC
Wholesale Radio Service Co.—See amplifier listing.																				

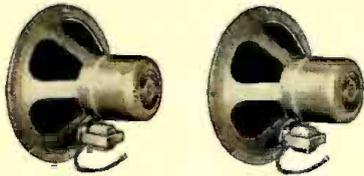
Amplifier Specifications with Suggested Equipment

Model No.	List price complete	Type	Rated watts	Dist. at rated watts	Max. watts	Total DB gain	No. of inputs in addit. to master	No. of mixers	No. of speakers and size	Type speaker	Can add'l speakers be used	Type mike	No. of tone controls	No. of tubes	Output tubes	Class output amp.	Phono turn-table	Line watts	Carried in stock	Power source
Amplifier Co. of America, 37 West 20th Street, New York, N. Y.—"ACA-Gold Medal Amplifiers."																				
ACA-10A	\$ 60.00	Port.	10	5%	15	125	2	2	1-12	ED	Yes	ED	1	5	2-42	A	Yes	90	Yes	AC
ACA-15A	80.00	Port.	15	7%	21	135	2	2	1-12	ED	Yes	ED	1	6	2-6F6	AB	Yes	100	Yes	AC
ACA-20A	95.00	Port.	20	5%	25	105	2	2	2-12	ED	Yes	ED	1	7	2-6A3	AB	Yes	115	Yes	AC
ACA-25A	100.00	Port.	25	5%	35	112	2	2	2-12	ED	Yes	ED	2	5	2-6A3	A	Yes	130	Yes	AC
ACA-32A	105.00	Port.	32	5%	40	93	2	2	2-12	ED	Yes	ED	1	6	2-6A5	B	Yes	110	Yes	AC
ACA-40A	115.00	Port.	40	5%	42	133	2	2	2-12	ED	Yes	ED	2	7	2-6L6	A	Yes	135	Yes	AC
ACA-50A	120.00	Port.	50	5%	50	108	2	2	4-12	ED	Yes	ED	1	11	4-6A3	AB	Yes	140	Yes	AC
ACA-60A	125.00	Port.	60	5%	75	136	4	4	8-12	ED	Yes	ED	2	9	4-6L6	A	Yes	150	Yes	AC
ACA-75A	135.00	Port.	75	8%	100	20	0	0			Yes			8	6-6A6	B	Yes	100	Yes	AC
ACA-90A	145.00	Port.	90	8%	110	33	1	1			Yes			8	6-6A6	B	Yes	120	Yes	AC
ACA-100B	150.00	Port.	100	8%	140	22	0	0			Yes			10	8-6A6	B	Yes	140	Yes	AC
ACA-128A	150.00	Port.	128	5%	150	35	1	1			Yes			10	8-6L6	A	Yes	160	Yes	AC
Amplifiers furnished for 6-Volt or 6-Volt-110AC operation at additional price.																				
Electronic Design Corp., 164 N. May St., Chicago, Ill.—"Vocograph."—See also sound systems listing.																				
30-RC	Fixed	8	12	125	12	125	2	1					2							AC
30-18C	Fixed	18		130		130	2	1					2							AC
30-35C	Fixed	35		130		130	2	1					2							AC
40-20C	Fixed	20		135		135	3	2					2							AC
40-40C	Fixed	40		135		135	3	2					2							AC
40-60C	Fixed	60		135		135	3	3					2							AC
New line of equipment—complete data not available as we go to press.																				
McMurdo Silver Corp., 2900 So. Michigan Ave., Chicago, Ill.—"Masterpiece."																				
1A	\$ 59.50		32	14%	50 milli	65	3	2	2	Preamplifier only	Yes		2	3		A			No	3A amp.
2A	59.50		32	14%	50 milli	10	1	1	1	Volume range expander	Yes		0	3		A			No	3A amp.
3A	149.50		32	2%	40	55	1	1	1	ED	Yes		0	4	2-6L6	AB ₁			No	AC
Operadio Mfg. Co., St. Charles, Ill.—"Operadio."—See also sound systems listing.																				
122AC	\$130.00	Mob	25	5%	35	128	2	2					1	6	2-6L6G	A	Yes	100	Yes	AC
122BAC	165.00	Mob	25	5%	35	128	2	2					1	6	2-6L6G	A	Yes	102	Yes	6V & AC
122B	142.50	Mob	25	5%	35	128	2	2					1	6	2-6L6G	A	Yes	102	Yes	6V & AC
678	80.00	Fixed	8	5%	28	110	2	2					2	4	2-6B5	A	No	125	Yes	AC
813	38.00	Fixed	8	5%	15	126	2	2					1	4	1-6L6G	A	No	75	Yes	AC
817	85.00	Fixed	14	5%	26	128	3	3					1	6	2-6V6G	AB	No	115	Yes	AC
822P	45.00	Fixed	22	5%	40	131	3	3					1	7	2-6L6G	AB	No	125	Yes	AC
835	120.00	Fixed	35	5%	52	134	3	3					2	8	2-6L6G	AB	No	130	Yes	AC
855	180.00	Fixed	55	5%	80	139	4	4					2	12	2-6L6G	AB	No	150	Yes	AC
870	125.00	Fixed	70	5%	104	28	1	1					..	7	4-6L6G	AB	No	210	Yes	AC
CODES: Port—portable, Mob—mobile, ED—electric excited dynamic; Car—carbon, Cry—crystal, Dyn—dynamic, SC—sound cell, SV—velotron, A, AB, AB ₁ , AB ₂ , B—class operation of output tubes, NS—data not supplied.																				

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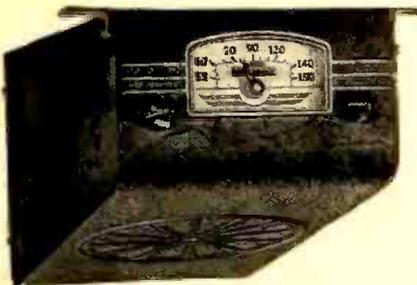
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 - ★ ONE electro-dynamic and SIXTEEN P. M. speakers.
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JOHN F. RIDER, Publisher, 1440 Broadway, N. Y. C.

EVERY AUDITORIUM, PARK, BEACH, AND SUMMER GATHERING SPOT, NEEDS "SOUND"!

Amplifier Specifications with Suggested Equipment—Compiled by Radio Today

Model No.	List price complete	Type	Rated watts	Dist. at rated watts	Max watts	Total gain	No. of inputs	No. of amplifiers in addit. to master	No. of speakers in addit. to master and size	Type speaker	Can add'l speakers be used	Type mike	No. of tone controls	No. of tubes	Output tubes	Class output amp.	Phono turn-table	Line watts	Carried in stock	Power source
Radolek Co., 601 W. Randolph St., Chicago, Ill.—"Radolek"																				
N15015	\$11.95 net	Port.	5	3%	5	70	2	1	1-11	ED	No	Car-Vel	1	3	1-6B5	A	No	55	Yes	AC
N15019	19.85 net	Port.	15	3%	18	130	3	2	2-11	ED	No	Cry-Vel	1	9	2-42	AB	No	90	Yes	AC
N15025	29.50 net	Port.	18	2%	24	130	3	2	2-12	ED	No	Cry-Vel	1	7	2-6L6	A	No	90	Yes	AC
N15035	43.50 net	Fixed	35	2%	45	130	3	2	3-12	ED	Yes	Cry-Vel	1	7	2-6L6	AB	No	180	Yes	AC
N15045	59.40 net	Fixed	50	2%	60	132	5	2	4-12	ED	Yes	Cry-Vel	1	11	2-6L6	AB	No	210	Yes	AC
N15052	28.35 net	Fixed	30	3%	30	130	2	2	2-12	ED	Yes	Cry-Vel	1	6	2-6L6	AB	No	55-70	Yes	6V & AC
N15054	48.75 net	Mob.	20	5%	22	130	2	2	2-12	PMI	No	Cry-Vel	1	6	2-6A6	B	No	65-80	Yes	6V & AC
N15056	89.00 net	Mob.	20	5%	22	130	2	1	2-12	PMI	No	Cry-Vel	1	6	2-6A6	B	Yes	65-80	Yes	6V & AC
Setchell-Carlson, Inc., 2233 University Ave., St. Paul, Minn.—"Setchell-Carlson"																				
L2	\$9.00	Port.	15	3%	20	115	4	2	1-12	PM	No	.....	0	7	6-2V6	AB	No	75	Yes	AC
PA-13	35.00	Port.	13	2%	17	112	3	2	.....	PM	Yes	.....	1	5	2-6V6	A	No	45	Yes	AC
PA-25	55.00	Port.	25	2%	31	112	3	3	.....	PM	Yes	.....	1	6	2-6V6	A	No	110	Yes	AC
PA-115	150.00	Port.	115	2%	120	118	4	4	.....	PM	Yes	.....	1	14	4-6V6	AB	No	230	Yes	AC
Sound Systems, Inc., 6545 Carnegie Ave., Cleveland, Ohio.—"S.S.I."—See also sound systems listing.																				
PA100	\$185.00	Fixed	4.5	5%	4.5	78	1	1	.....	.....	.....	.....	0	5	2-45	A	.....	75	Yes	AC
PA101	160.00	Fixed	15	5%	15	76	1	1	.....	.....	.....	.....	0	4	2-2A3	A	.....	135	Yes	AC
PA102	195.00	Fixed	15	5%	15	80	1	1	.....	.....	.....	.....	0	6	2-2A3	A	.....	135	Yes	AC
PA103	185.00	Fixed	4.5	5%	4.5	56	1	1	.....	.....	.....	.....	0	4	2-45	A	.....	75	Yes	AC
PA104	170.00	Fixed	15	5%	15	58	1	1	.....	.....	.....	.....	0	5	2-2A3	A	.....	75	Yes	AC
The Turner Co., 909 17th St., Cedar Rapids, Iowa.—"Turner"																				
MX15	\$85.00	Port.	8	5%	8	95	1	NS	1-8	ED	No	Cry	0	4	1-6B5	AB	.....	85	Yes	AC
S22	98.00	Port.	8	5%	8	111	1	NS	2-10	ED	No	Cry	1	4	2-42	AB	.....	120	Yes	AC
S23	135.00	Port.	12	5%	15	124	1	NS	3-10	ED	No	Cry	1	5	2-6B5	AB	.....	125	Yes	AC
S24	150.00	Port.	12	5%	18	124	1	NS	2-10	ED	No	Cry	1	6	2-6B5	AB	.....	130	Yes	AC
S25	165.00	Port.	18	5%	20	124	2	NS	2-10	ED	No	Cry	1	6	2-6B5	AB	.....	132	Yes	AC
Transformer Corp. of America, 69 Wooster St., New York, N. Y.—"Clarion"—See also sound systems listing.																				
C-9	\$31.50	Fixed	5	5%	5	116	3	2	.....	.....	.....	.....	1	4	1-6N6	A	No	60	Yes	AC
C-15	45.50	Fixed	15	7%	20	121	3	2	.....	.....	.....	.....	1	6	2-6N6	A	No	120	Yes	AC
C-19	95.00	Port.	15	7%	20	124	3	2	2-11	ED	.....	.....	1	6	2-6N6	A	No	120	Yes	AC
C-21	73.90	Fixed	25	5%	35	121	4	4	.....	.....	.....	.....	10	8	2-6L6	B	No	140	Yes	AC
C-27	89.20	Fixed	35	5%	50	122	4	4	.....	.....	.....	.....	1	10	4-70	B	No	190	Yes	AC
C-33	99.25	Mob.	20	7%	30	125	3	2	.....	.....	.....	.....	1	9	1-6N6	B	No	108	Yes	6V
C-44	62.95	Port.	5	5%	5	116	3	4	1-8 1/2	ED	.....	.....	1	4	1-6N6	A	No	60	Yes	AC
C-55	164.00	Port.	25	5%	35	121	4	4	2-12	ED	.....	.....	1	8	2-6L6	A	No	140	Yes	AC
Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.—"Webster-Chicago"—See also sound systems listing.																				
2A30	\$115.00	Fixed	30	2.5%	40	135	2	2	.....	.....	Yes	.....	2	12	4-2A3	A	No	270	Yes	AC
712	45.00	Fixed	12	6.5%	13	127	2	2	.....	.....	Yes	.....	1	7	2-6V6	AB	No	87	Yes	AC
X-7	31.50	Fixed	7	4%	8	69	2	2	.....	.....	No	.....	1	3	1-6L6	A1	No	57	Yes	AC
X-7	32.50	Fixed	7	4%	8	114	2	2	.....	.....	No	.....	1	4	1-6L6	A1	No	64	Yes	AC
Webster Electric Co., Clark & DeKoven, Racine, Wis.—"Webster Electric"—See also sound systems listing.																				
8-60	185.00	Fixed	50	5%	60	25	3	0	.....	.....	Yes	Cry-Vel	3	12	4-6L6	A	No	225	Yes	AC
9-60	120.00	Fixed	60	5%	60	40	1	0	.....	.....	Yes	.....	0	7	4-6L6	A	No	220	Yes	AC
Wholesale Radio Service Co., Inc., 100 Sixth Avenue, New York, N. Y.—"Lafayette"																				
801P	\$35.50	Fixed	5	5%	8	130	3	2	1-11	ED	No	SV	1	4	1-6N6	A	No	60	Yes	AC
802P	38.50	Fixed	5	5%	8	130	3	2	1-11	ED	No	Cry	1	4	1-6N6	A	No	60	Yes	AC
803P	41.25	Fixed	15	5%	8	130	3	2	2-12	ED	No	Cry	1	4	1-6N6	AB	No	60	Yes	AC
806P	63.25	Fixed	15	9%	20	140	3	2	2-12	ED	Yes	SV	1	6	2-6N6	AB	No	120	Yes	AC
807P	61.50	Fixed	15	9%	20	140	3	2	2-12	ED	Yes	SV	1	6	2-6N6	AB	No	120	Yes	AC
808P	67.25	Fixed	15	9%	20	140	3	2	2-12	ED	Yes	SV	1	6	2-6N6	AB	No	120	Yes	AC
821P	78.50	Fixed	20	3%	30	138.6	4	2	2-12	ED	Yes	Vel	1	7	2-6L6	AB	No	175	Yes	AC
824P	85.95	Fixed	30	3%	40	145	4	2	2-12	ED	Yes	Vel	1	8	2-6L6	AB	No	175	Yes	AC
840P	148.50	Fixed	60	3%	90	140	4	2	4-12	ED	Yes	Vel	1	14	4-6L6	AB	No	240	Yes	AC
876P	129.50	Port.	20	4%	30	133.6	NS	NS	2-12	PMI	Yes	Cry	1	9	4-79	B	Yes	NS	Yes	6V & AC
876P	145.95	Port.	20	4%	30	133.6	NS	NS	2-12	PMI	Yes	Cry	1	9	4-79	B	Yes	NS	Yes	6V & AC
850P	39.50	Port.	5	5%	8	130	3	2	2-8	ED	No	SV	1	4	1-6N6	A	No	60	Yes	AC
855P	59.50	Port.	15	9%	20	140	3	2	2-8	ED	No	SV	1	4	1-6N6	AB	No	120	Yes	AC
860P	82.95	Port.	20	3%	30	138.6	4	2	2-12	ED	Yes	Vel	1	6	2-6L6	A	No	150	Yes	AC
870P	96.95	Port.	30	3%	40	145	4	2	2-12	ED	Yes	Vel	1	8	2-6L6	AB	No	150	Yes	AC
862P	145.45	Port.	30	3%	40	124	4	2	1-11	ED	No	Car	2	10	2-2A3	AB	No	165	Yes	AC
830P	26.25	Fixed	10	NS	14	74	2	1	1-11	ED	No	Car	1	5	2-2A3	A	No	50	Yes	AC
831P	19.95	Fixed	3 1/2	NS	4 1/2	78	2	1	1-8 1/2	ED	No	Car	1	3	1-8A5	A	No	50	Yes	AC
832P	59.75	Fixed	30	NS	35	104	1	1	2-12	ED	Yes	Cry	1	7	4-6B5	A	No	140	Yes	AC
1030T	475.00	(Sound Centralized)	60	3%	90	140	4	2	none	PM-ED	Yes	none	1	21	4-6L6	AB	Yes & All Wave Ratio	330	No	AC

CODES: Port—portable, Mob—mobile, ED—electric excited dynamic, Car—carbon, Cry—crystal, Dyn—dynamic, SC—sound cell, SV—vacuum cell, 6V—6 volt, AB₁, AB₂, B—class operation of output tubes, NS—data not supplied.

SPRING CLEAN-UP

(From page 32)

Since so many sets are being operated with burnt-out dial bulbs, any check-up offer might well include free replacement of the defective dial lamp. This feature alone will attract many set owners and the cost is negligible.

Consultations with the service departments of the major set manufacturers indicate that the alignment of sets should be checked periodically, perhaps as often as every 6 to 12 months, if peak performance is to be had. This is particularly true, if the customer has moved the set from one house to another.

Align all sets

Several large service organizations handling over 100,000 sets annually, place so much importance on proper alignment that they check or realign every set that comes into the shop. Dial calibrations are quite important—very often they go wrong because the dial indicator or set-screw has slipped. Correcting this detail brings greater radio enjoyment since the stations can be tuned by frequency.

While old man static goes wild on the broadcast band in summer, yet on short waves there is less of static in the summer than the winter. Therefore listeners should be encouraged to use the short waves too. But even on the broadcast band in fair locations, static is not too severe for satisfactory reception, if the owner's equipment is in good condition.

GOOD CONDENSERS INSURE TRANSFORMER AND RECTIFIER LIFE

★ "Good condensers last longer," states Aerovox's Charles Golenpaul, "so that when their cost is figured in total hours of useful service, they prove less expensive than the lowest priced condensers of questionable quality.

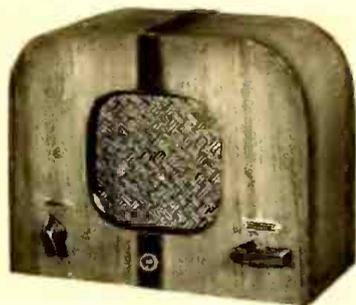
"Also, there is another and still greater factor of cost, and that is the wear and tear on power transformer and rectifier tube. A poor electrolytic condenser with a high leakage factor and slow forming rate, throws an undue strain on transformer secondary and rectifying tube. And when such a condenser breaks down, the transformer and rectifier may be ruined, representing a considerable loss.

You buy **PLUS** FEATURES

When you buy OPERADIO INTERCOMMUNICATING SYSTEMS



Model 145-10 Intercommunicating System in either Wood or Steel cabinet. List Price from \$41 to \$47 per station.



Model 135 Intercommunicating System in either Wood or Steel cabinet. List Price \$57.50 per pair.

GIVING you everything that you can buy in other I. C. Systems, OPERADIO Intercommunicating Systems give you PLUS features that you can obtain nowhere else. The famous conference hook up—which permits two to four people to talk with each other and hear each individual conversation just as though they were together in one room is but one of the Operadio PLUS features. Technically perfect . . . guaranteed to give longer and better performance, they also have a beauty of design and finish that breaks down all sales resistance the minute the buyer sees them. Models with ear phones available for confidential conversation.

Take on the Operadio line, and you take on the 1937 Profit line. Buy no others until you see it. Address Dept. R5T for complete descriptions and illustrations.

The Most COMPLETE Line of P. A. EQUIPMENT, P. A. SPEAKERS AND RADIO REPLACEMENT SPEAKERS THE MARKET AFFORDS. EASY TIME PAYMENT PLAN. Send for our new Catalog. Address Dept. R5T.

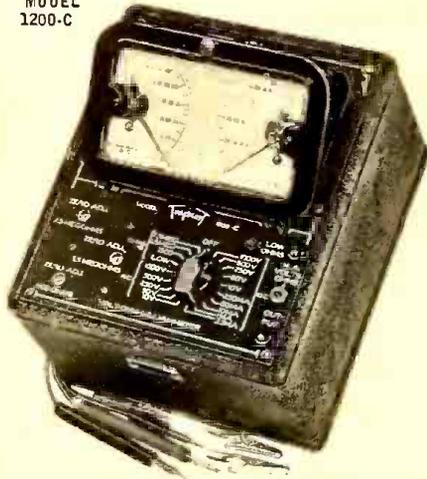
THE PRICED RIGHT LINE . . . THE LIBERAL DISCOUNT LINE . . . THE 1937 PROFIT LINE!

Something of Unusual Interest Awaits You At Our Booth 94 . . . and Demonstration Room 505 AT THE PARTS CONVENTION

★
OPERADIO
MANUFACTURING COMPANY
ST. CHARLES . . . ILLINOIS

The Delicate Balance of "High-Fi" Sets

MODEL
1200-C



Dealer Price **\$24.33**

Easily Adjusted

with MODEL 1200-C
VOLT-OHM-MILLIAMMETER

- 5000 Ohms per Volt OC
- Resistance Readings to 7.5 Megohms
- For All Radio Measurements not Requiring a No Current Draw Vacuum Tube Voltmeter.
- Model 1200-C has separate AC and OC instruments. Tilting case for accurate reading. Ohms scales separately adjusted. Low loss switch. (Contact error on milliamperes less than 1/2% — no contact error on voltage measurements.) Low ohms scale requires but 6 2/3 milliamperes. Accuracy both AC and OC guaranteed within 2%. All Metal Case. Scale reads: OC 10-50-250-500-1000 volts at 5,000 Ohms per volt; 250 Microamperes; 1-10-50-250 Milliamperes; 1/2 to 500 low Ohms, 1500 Ohms, 1.5 and 7.5 Megohms. AC 10-50-250-500-1000 volts. DEALER PRICE\$24.33

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

SEE YOUR JOBBER
WRITE FOR CATALOG



THE TRIPLET ELECTRICAL INSTRUMENT CO.
195 Harmon Ave., Bluffton, Ohio

Without obligation please send me complete information on ...Model 1200-C: ...I am also interested in

Name

Address

City

State

SERVICE NOTES

AFC CONTROL TUBE CIRCUITS

* Discriminator circuits were a subject of discussion in the April RADIO TODAY on pages 55 and 56. This month a number of the *control circuits* have been redrawn in a simplified manner and are briefly described.

The purpose of the control tube and its associated circuit is to vary the frequency of the oscillator tube in such a manner as to keep the I.F.

frequency produced by the modulator tube at the correct value. A somewhat lengthy explanation of how this tube worked was given on page 32 of the June, 1936, RADIO TODAY.

Briefly, the control tube is connected into the circuit in such a manner as to act either as a variable inductance or variable capacitance in parallel with the oscillatory circuit. The magnitude or value of the capacity or inductance is controlled by the voltage supplied by the discriminator tube and its circuit.

In all of the circuits, the plate of

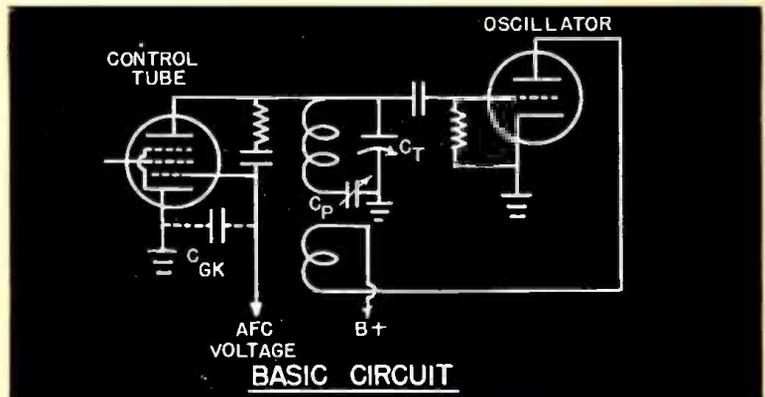


Fig. 1—Basic circuit for oscillator control tube omitting non-essentials.

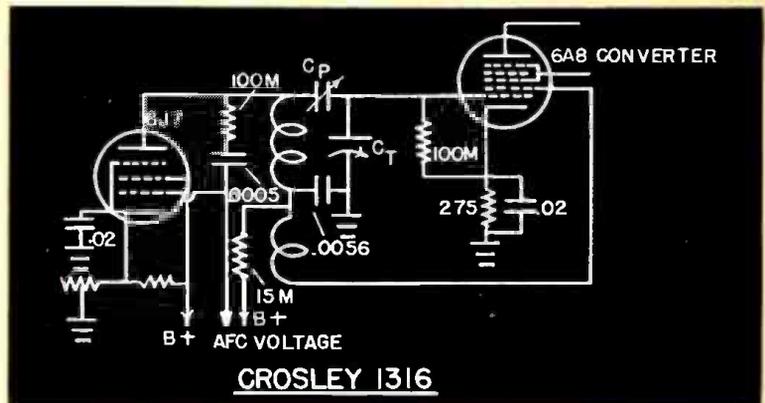


Fig. 2—Crosley's circuit employs a 6A8 converter-oscillator tube.

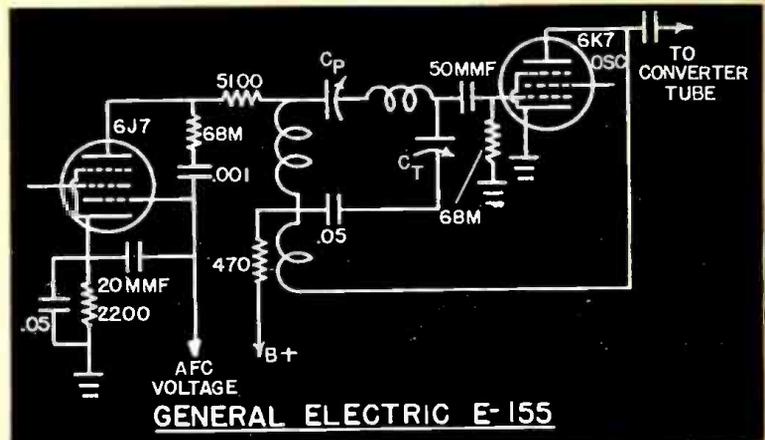


Fig. 3—A separate oscillator tube is utilized in the G-E 15-tube model.

Model Chassis	I.F. Peak	
A-5	262.5	
A-6	262.5	
A-7	262.5	
A-8	262.5	
A-9	262.5	
A-10	262.5	
AB-9	262.5	
AB-10	262.5	
AD-11	262.5	
AD-12	262.5	
AW-55	445	
B	262.5	
B-1	262.5	
B-2	262.5	
B-3	262.5	
BV	262.5	
CB	262.2	
CD	262.5	
CM	262.5	
CMS	262	
CS	175	
D	262.5	
D-11	262.5	
D-12	262.5	
D-14	262.5	
DA-8	262.5	
DA-9	262.5	
DA-10	262.5	
DAC	262.5	
DAS	262.5	
DSP	262.5	
EL-105	456	
ES	262.5	
ES-19	262.5	
ES-20	262.5	
ES-25	262.5	
J	175	
JS	175	
K	262.5	
K-60	262.5	
KS	175	
Classic	448	

JACKSON-BELL, LTD.

5A	456
24	456
25, 25A, 25U	175
26S	175
27	175
28	175
29	175
33	840
79	175
84	175
86	175
87	175
88	175
89	175
89-A	175
96	175
99	175
205	465

JACKSON-BELL WESTONE

27	456-R
57	456-R
406	456-R
456	456-R
506, 506M	456-R
556, 556C	456-R
606, 606M	456-R
606U, 606UM	456-R
806, 806C	456-R

JACKSON RESEARCH

NJ-8	175
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KAYO

4	175
5	262.5

KELLER-FULLER "Radiette"

50-S	175
70	175
80	175
90	175
120	175

KENNEDY

52	175
52 (Export)	135
53-SW	1,000
54	1,525
54-SW	1,000
56	175
62A	175
62D	175
63, 63-A	175
64	175
64-B	175
64-C	175
66	175
66-A	175
66-B	175
67 (Export)	110
72	175
72-A	175
72-B	175
164-B	175
266-B	175
366-B	175
563-A	175
563-B	175
826-B	175
882	175

I.F. PEAKS and COLOR CODING

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KINGSTON

55	456
500	456
500-A	456
600-A	172.5
(Above C-1100)	
(below C-1100)	182.5
600-B	182.5
(below C-1100)	
(Above C-1100)	172.5
610-B	172.5
(below C-1100)	
700	456
700-A	456
700-B	456
6510-B	172.5
(Above C-1100)	
Gypsy	456

KNIGHT*

6	175-RC
7	175-RC
12	177.5-RC
118	175-RC
E9830	177.5-RC
E9831	177.5-RC
F-9501	456-RC
F-9505	456-RC
F-9511	456-RC
F-9515	456-RC
F-9531	456-RC
F-9541	175-RC
F-9561	175-RC
F-9563	175-RC
F-9571	456-RC
F-9591	456-RC
F-9610	465-RC
F-9616	175-RC
F-9741	175-RC
F-9631	456-RC
F-9687	177.5-RC
F-9640	177.5-RC
F-9650	177.5-RC
F-9685	177.5-RC
F-9660	177.5-RC
F-9737	175-RC
F-9741	175-RC
G-9511-13	465-RC
G-9515	465-RC
G-9517	465-RC
G-9521	456-RC
G-9533	465-RC
G-9525	456-RC
G-9545	465-RC
G-9547	465-RC
G-9549	465-RC
G-9553	456-RC
G-9557	456-RC
G-9561	456-RC
G-9561	465-RC
G-9563	456-RC
G-9563	456-RC
G-9565	456-RC
G-9567	456-RC
G-9567	456-RC
G-9571	456-RC
G-9599	465-RC
G-9611	465-RC
G-9613	465-RC

G-9616	465-RC
G-9881	456-RC
G-9882	175-RC
H-9725	456
H-9726	177.5
H-9805	465-RC
H-9811	456-RC
H-9812	175-RC
H-9813	465-RC
H-9815	465-RC
H-9819	465-RC
H-9820	465-RC
H-9830	456-RC
H-9831	456-RC
H-9832	456-RC
H-9852	456-RC
H-9853	456-RC
H-9854	456-RC
H-9855	456-RC
H-9856	456-RC
H-9858	456-RC
H-9865	465-RC
H-9867	465-RC
9801	465-RC
9817	465-RC
9834	456-RC
9835	456-RC
9836	456-RC
9840	456-RC
9841	456-RC
9842	456-RC

KOLSTER

K-55	175
K-60	175
K-62	175
K-63	175
K-65	175
K-66	175
K-70	175
K-72	175
K-73	175
K-75	175
K-76	175
K-80	175
K-82	175
K-83	175
K-85	175
K-86	175
K-90	175
K-92	175
K-93	175
K-95	175
K-96	175
L-100	175
K-102	175
K-103	175
K-105	175
K-106	175
K-110	175
K-112	175
K-113	175
K-114	175
K-120	175

K-122	175
K-123	175
K-125	175
K-130	175
K-132	175
K-133	175
K-135	175
K-140	175
K-142	175
K-143	175
K-145	175
K-165	175
K-195	175
K-JJ	175

KROHLER

93-B	175
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LAFAYETTE*

O5-A	262-RC
6-U	262 1/2-RC
10C10	175-RC
28-A	456-RC
40-A	175-RC
80-M	175-RC
310-A	456-RC
371	456-RC
A-7	115-RC
A-11	175-RC
A-12	175-RC
A-14	175-RC
A-15	175-RC
A-19	115-RC
A-20	175-RC
A-22	456-RC
A-23	456-RC
A-24	175-RC
A-25	115-RC
A-26	115-RC
A-33	456-RC
A-34	456-RC
A-38	456-RC
A-39	456-RC
A-60	175-RC
A-70	456-RC
A-71	456-RC
A-77	175-RC
A-77-L	115-RC
A-81	456-RC
A-84	456-RC
AM-8	175-RC
AM-10	115-RC
AM-20	175-RC
AM-25	115-RC
AM-26	175-RC
AM-36	115-RC
AM-40	456-RC
AM-42	456-RC
AM-44	175-RC
B-12	175-RC
B-21	456-RC
B-22	456-RC
B-23	456-RC
B-28	456-RC

B-29	456-RC
B-30	456-RC
B-35	456-RC
B-36	456-RC
B-37	456-RC
B-39	456-RC
B-40	456-RC
B-41	456-RC
B-51	175-RC
B-52	175-RC
B-53	175-RC
B-54	175-RC
B-59	175-RC
B-60	175-RC
B-62	175-RC
B-64	175-RC
B-65	175-RC
B-68	456-RC
B-80	456-RC
B-81	456-RC
B-82	456-RC
B-87	456-RC
B-88	456-RC
B-89	456-RC
B-90	175-RC
B-92	175-RC
B-97	456-RC
B-98	456-RC
C-17	456-RC
C-20	456-RC
C-22	175-RC
C-23	175-RC
C-25	456-RC
C-26	456-RC
C-40	456-RC
C-42	456-RC
C-46	456-RC
C-47	456-RC
C-48	456-RC
C-50	456-RC
C-52	456-RC
C-53	456-RC
C-60	175-RC
C-61	456-RC
C-62	456-RC
C-64	456-RC
C-65	456-RC
C-70	456-RC
C-75	456-RC
C-76	456-RC
C-78	456-RC
C-78-L	456-RC
C-79	456-RC
C-80	456-RC
C-83	456-RC
C-84	456-RC
C-95	456-RC
C-96	456-RC
C-97	456-RC
C-305.181.5	RC
D-8	456-RC
D-10	456-RC
D-11	456-RC
D-13	456-RC
D-14	456-RC
D-15	456-RC
D-16	456-RC
D-17	456-RC
D-18	456-RC
D-20	456-RC
D-27	456-RC
D-28	456-RC
D-29	456-RC
D-30	456-RC
D-31	456-RC
D-45	175-RC
D-46	175-RC
D-52	175-RC
DA-11	465-RC
DP (Special)	456-RC
EB-8	456-RC
ES-6	456-RC
E-20	115-RC
E-204	115-RC

LA SALLE*

05-A	262-RC
6-U	262 1/2-RC
10C10	175-RC
28-A	456-RC
40-A	175-RC
80-M	175-RC
310-A	456-RC
371	456-RC
A-7	115-RC
A-11	175-RC
A-12	175-RC
A-14	175-RC
A-15	175-RC
A-19	115-RC
A-20	175-RC
A-22	456-RC
A-23	456-RC
A-24	175-RC
A-25	115-RC
A-26	115-RC
A-33	456-RC
A-34	456-RC
A-38	456-RC
A-39	456-RC
A-60	175-RC
A-70	456-RC
A-71	456-RC
A-77	175-RC
A-77-L	115-RC
A-81	456-RC
A-84	456-RC
AM-8	175-RC
AM-10	115-RC
AM-20	175-RC
AM-25	115-RC
AM-26	175-RC
AM-36	115-RC
AM-40	456-RC
AM-42	456-RC
AM-44	175-RC
B-12	175-RC
B-21	456-RC
B-22	456-RC
B-23	456-RC
B-28	456-RC

Model Chassis	I.F. Peak
FA-3	456-RC
FA-6	456-RC
F-20	456-RC
F-32	115-RC
F-36	115-RC
F-44	115-RC
J-3	370-RC
J-4	456-RC
J-16	456-RC
J-19	456-RC
J-20	456-RC
J-33	465-RC
J-37	480-RC
J-38	456-RC
J-39	456-RC
J-40	456-RC
J-41	456-RC
J-43	456-RC
J-44	456-RC
J-79	456-RC
J-80	456-RC
JA-1	456-RC
JA-2	456-RC
JB-3	456-RC
L-1	175-RC
L-3	175-RC
L-4	175-RC
L-11	175-RC
L-12	175-RC
L-16	175-RC
L-17	175-RC
L-18	175-RC
L-19	175-RC
L-20	262-RC
L-22	262-RC
L-23	262-RC
L-30 (Early)	262.5-RC
L-30	175-RC
M-9	465-RC
M-9-LW	465-RC
M-31	465-RC
M-35	175-RC
M-37	175-RC
M-43	465-RC
M-47	520-RC
M-53	175-RC
M-69	115-RC
MB-3	456-RC
MB-4	456-RC
MB-5	456-RC
MB-6	456-RC
S-61	456-RC
S-62	456-RC
U-145	507.5-RC
U-155	507.5-RC
Orthotone (early)	262
Orthotone (late)	507 1/2

LAURENK*

AE-5	456-R
AE-5B	465-R
AE-6	175-R
F-44	115-RC
J-3	370-RC
J-4	456-RC
J-16	456-RC

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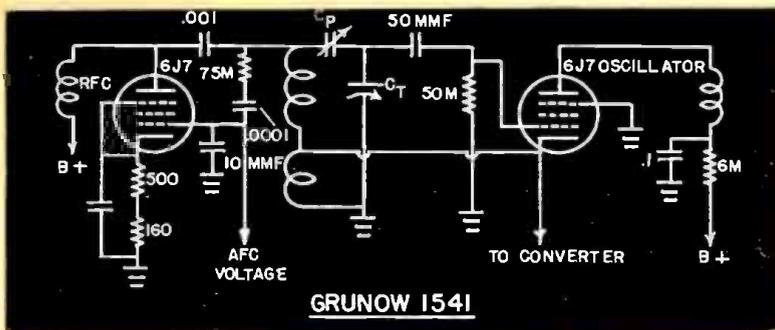


Fig. 4—Parallel plate voltage feed is used in the Grunow circuit.

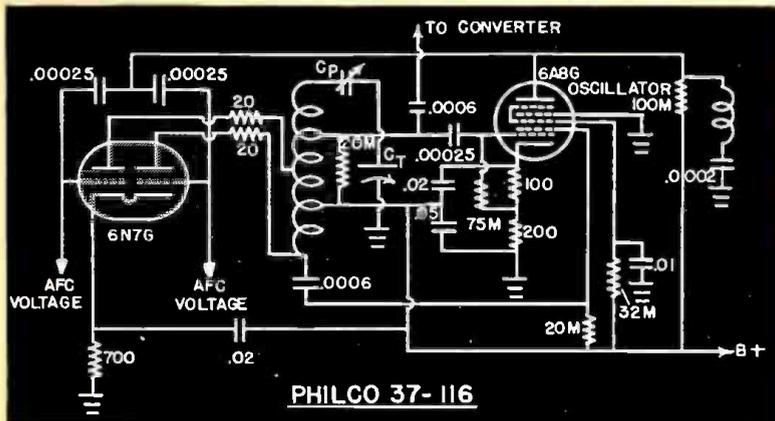


Fig. 5—"Push-pull" operation is utilized in Philco's control circuit with a 6N7G dual-triode tube.

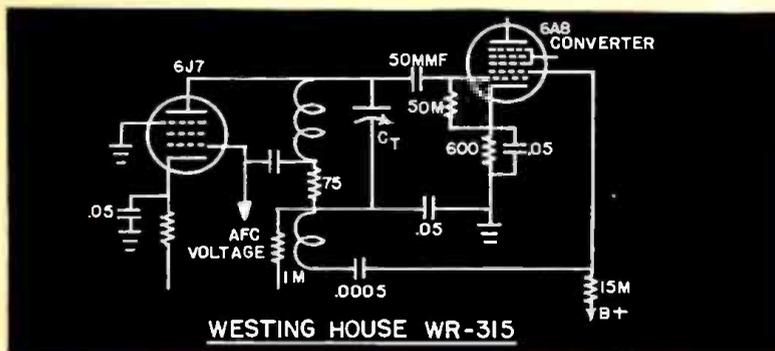


Fig. 6—A fixed frequency oscillator is found in the Westinghouse double superhet. A second oscillator is used in tuning.

the control tube is connected across the oscillator coil or a portion of it. By feeding the grid of the tube with a voltage that is 90° out of phase with the voltage across the oscillator coil, the plate current of the tube is made to be 90° out of phase with the oscillator voltage.

If the grid excitation voltage is obtained from such a part of the oscillatory circuit so as to lead the voltage across the oscillatory circuit, the tube will act as a condenser (drawing a leading current). Or if desired the grid excitation may lag by 90°, in which case the tube acts as an inductance (lagging plate current)—this is the more common application.

In Fig. 1, the basic circuit. The grid excitation for the control tube is obtained across a resistor and condenser in series, which are connected

to the high side of the oscillatory circuit. The inherent tube capacity C_{gk} exists between the control grid and ground. Because of the presence of this capacitance, the voltage applied to the grid lags the oscillatory voltage.

In Fig. 2 the circuit of Crosley's model 1316 is shown. The plate voltage for the control tube is fed through the oscillator coil. Note that the padding condenser is connected in the high-potential side of the tuning circuit, where it blocks out the DC plate voltage and prevents it from reaching the grid of the 6A8 converter tube.

A variable cathode resistor is employed by Crosley to bias the 6J7 control tube at the proper operating point.

General Electric's circuit as employed (Fig. 3) in the E-155 set is

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SERVICE NOTES

very similar to the basic circuit. It employs a separate oscillator tube coupled to the converter through a condenser. The capacity C_{pk} is supplemented by the addition of a 20 micromicrofarad condenser from the grid to cathode.

While an inductance appears in the G-E circuit between the control grid and the main oscillator coil, this inductance is one used primarily on the highest frequency wave band. Its existence on the broadcast band can be neglected for purposes of discussion.

Parallel plate feed is employed in Grunow's model 1541 receiver (Fig. 4). Instead of feeding the plate voltage through the oscillator inductance, it is fed through an R.F. choke. A .001 condenser between the 6J7 control tube plate and the oscillator coil blocks out the DC plate voltage.

The 6J7 oscillator is employed in an electron-coupled circuit using a tapped coil connected to the cathode. The plate circuit inductance is used for feed-back on the high frequency bands. Also in this circuit, the grid to cathode capacity is supplemented by a 10 micromicrofarad condenser to ground. Except for minor differences it is essentially the same as the basic circuit.

In the Philco circuit shown in Fig. 5 there are marked variations from the basic one. First of all, a dual type control is used. This tube has both sections connected to taps on the oscillator inductance. The grids of this control tube are excited in parallel from the plate of the 6ASG tube which is employed solely as an oscillator.

Two sets of discriminator voltages are used as explained last month in RADIO TODAY. The two sections of the 6X7G tube operate according to descriptions by Philco as positive and negative inductances. When the set is in resonance, the effects of the inductances cancel each other since they are equal. But if the oscillator is out of tune in one direction, one section acts as a more positive inductance while the other acts as a less negative one. Or if the mistuning is in the opposite direction, the two sections of the tube work in the reverse manner. In this way the circuit operates with a dual control tube.

The coil and condenser combination across the plate of the 6ASG oscillator tube causes the phase of the R.F. plate voltage to be shifted before it is fed to the control tube. On some bands and sets, a condenser is used without the coil.



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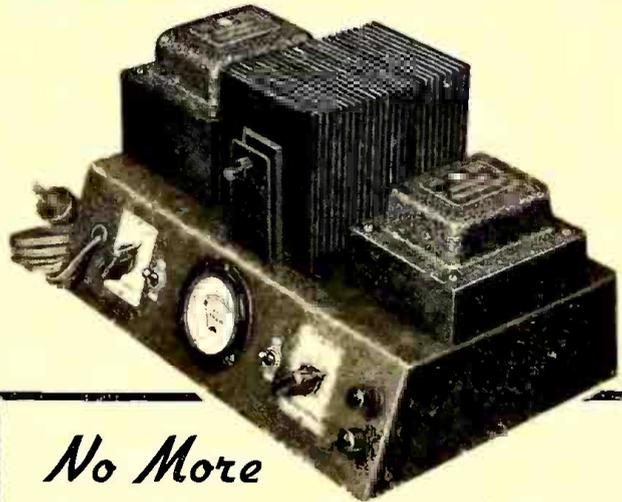
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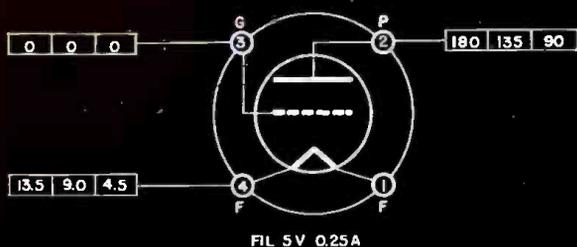
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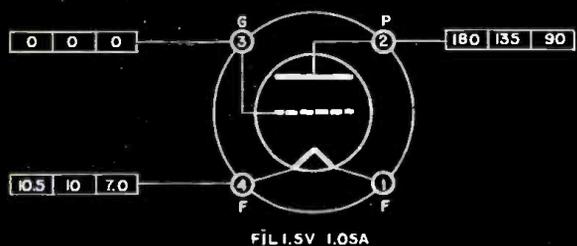
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TRANSFORMER COUPLED

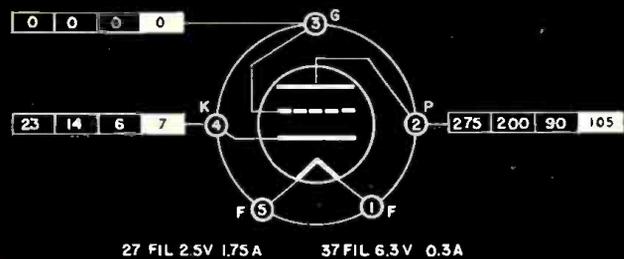
TYPE 01-A



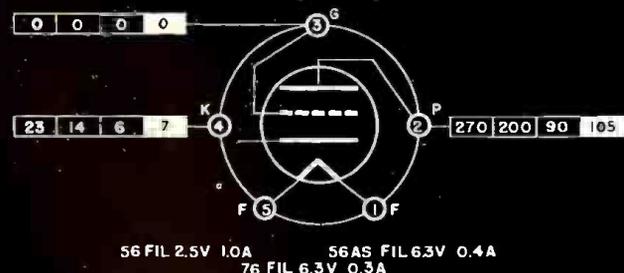
TYPE 26



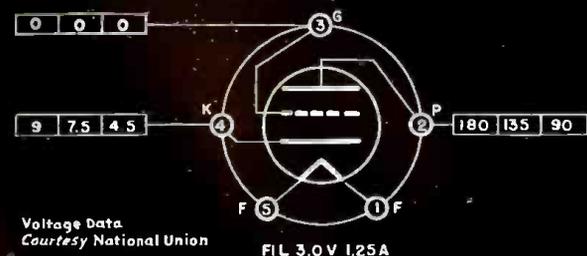
TYPES 27, 37



TYPES 56, 56AS, 76

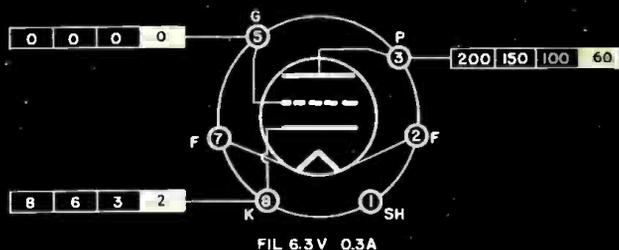


TYPES 484, 485

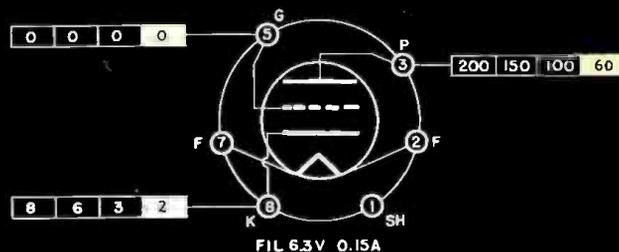


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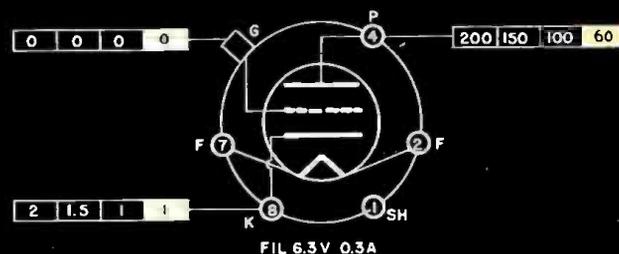
TYPES 6C5, 6C5G, 6J5G



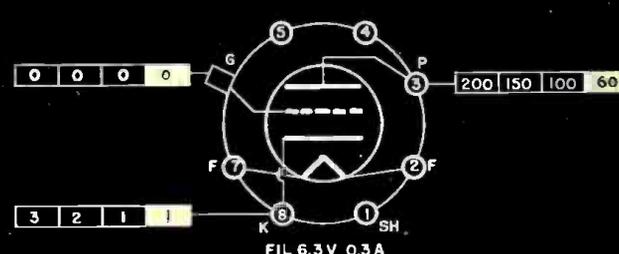
TYPE 6L5G



TYPES 6F5, 6F5G



TYPE 6K5G



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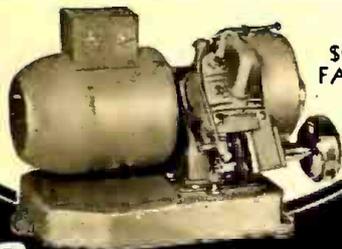
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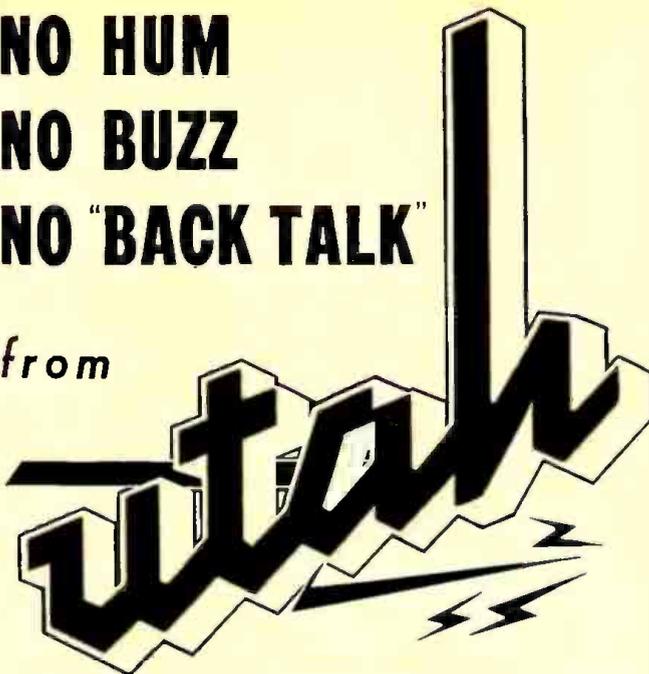
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Fig. 6 shows the circuit employed in the Westinghouse WR-315. This is a fixed frequency oscillator (no tuning condenser) since the set is a double super-het. Here the grid of the control tube is excited across a resistor placed in series with the oscillator inductance. Since the voltage across this resistor is 90° out of phase (approximately) with the main voltage, the tube works the same as the others in controlling the oscillator frequency.

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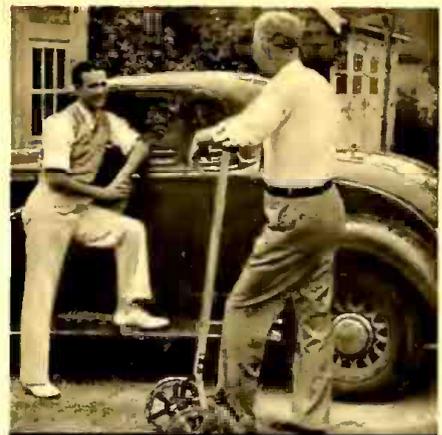
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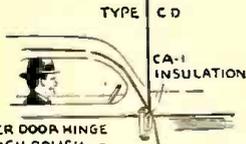
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FASTENS WITH RUBBER
SUCTION CUPS



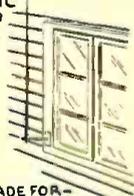
LIST \$5.00

COUPE \$4.50

SEDAN TYPE-ST

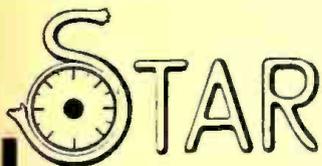
COUPE CT

9 FT. HIGH
ALL DURAL
TELESCOPIC
LIST \$5.00
TYPE HT



MADE FOR—
HOTELS, APARTMENTS,
AND OFFICES FITS ANY
WINDOW AND GIVES
PERFECT RECEPTION.

DISTRIBUTORS QUANTITY PROPOSITION
SOME REPRESENTATIVES TERRITORIES OPEN



AUTO RADIO CONTROLS

THE ONLY CONTROL
UNIT With All Ratios
SELF CONTAINED

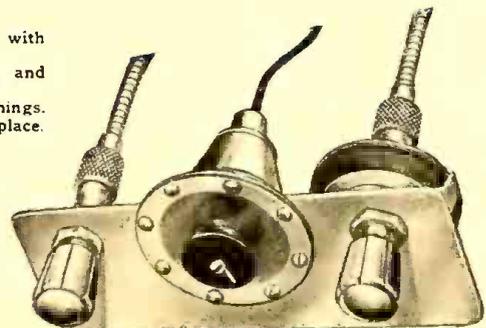
Fits all automobile instrument panels.
Fits all radios—regardless of ratio, with one unit.
Fits all condensers clockwise or counter clockwise, with one dial.
Fits all panel thicknesses—with adjustable indicator, and adjustable control shafts.
No holes to drill or file—100% universal for all panel openings.
No trouble to install—preassembled, simply bolt in place.
No adjustments necessary—automatic calibration.
No excessive stock—same unit fits every job.
Custom matched plates to fit all 1935, '36 and '37 cars.

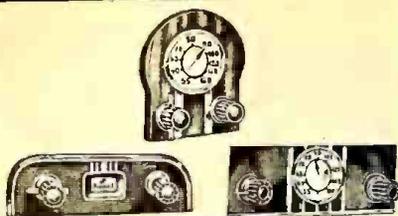
STAR MACHINE MANUFACTURERS, INC.

Precision Instrument Makers Since 1913

1371 E. BAY AVENUE BRONX, N. Y.

Send for our illustrated catalog No. 371.
Several territories are open for factory representation.
Distributed through recognized jobbers only.





CROWE
Auto Radio
PANEL
CONTROLS
 for 1935-1936-1937
CARS
 NEW DOUBLE UNIT DESIGN

CROWE Auto-Radio Remote Controls are custom-built for all makes of cars—1935, 1936, and 1937 models—and for the principal makes of radios. Made in either airplane or porthole dial types, to match styling of car on which installed.

Same Controls for All Cars!
 Same controls and shafts can be put on any car and re-used when moving radio to another car. A panel kit is the only new part required on re-installation jobs.

Less Stock Investment
 This interchangeable CROWE feature enables the distributor and dealer to have a flexible, readily available stock, with much less investment.

Other Salient Features
 The ease with which Service Men may install these controls—no sawing, filing, or drilling—compact and handy installation in panel—are among other features.

Ask for NEW Bulletin 202 which gives full details on these new controls.

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

plaints of poor reception thus become valuable leads for servicing business for Mr. Rhine's organization.

The wide metropolitan area covered by WOR makes a comprehensive interference service particularly difficult, but Mr. Rhine's men have no trouble covering Greater New York, Brooklyn, Queens, and half the state of New Jersey. Following is the form letter which the broadcast station sends out in reply to complaints from listeners.

Receipt of your recent communication is hereby acknowledged concerning reception of WOR.

We have taken the privilege of referring your letter to the Radio Service Department of A. E. Rhine, located at 158 West 230th Street, New York City. This organization has had vast experience in the servicing and adjusting of radio sets.

Within a few days a representative of the Rhine concern will call at your residence to determine the difficulty you are experiencing in reception. The radio serviceman will make a thorough inspection of the receiver and its installation. There will be no charge for this service call.

If this inspection indicates that the fault is inherent in your receiver requiring repairs or adjustments, the representative will submit an estimated cost to you of such work which may be necessary.

Yours very truly,
 J. R. POPPELE,
 Chief Engineer WOR.

Earlier plans

Formerly the engineering department of WOR attempted to contact personally every writer of a letter complaining about reception of the station. Thousands of such listener calls were made by the WOR staff. But even in the numbers reached, costs were high, and after eight months' experience with this direct-response plan, the cost of answering complaints and adjusting listeners' sets was found to be \$2.90 per complaint.

Next, an attempt was made to use local servicemen in the neighborhoods of the complainants. But this did not work out satisfactorily, for many calls remained unanswered. Finally Mr. Rhine was called in to advise, and then he personally undertook to have his own qualified service employees call on every complaining listener whose letter was referred to him. Since this plan has been adopted, no complainants have been overlooked, the listeners are pleased, and the number of trouble-letters has fallen off.

Based on the practical experience of his organization in running down



Arthur E. Rhine, who has found WOR's listener letters a valuable source of service business.

WOR's listeners' difficulties, Mr. Rhine gives some advice on interference elimination. Says he:

Antennas, grounds

"Care must be exercised to insure proper direction of the antenna. An ordinary broadcast antenna should be broadside to the emanating signals, whereas, the all-wave type of antenna must point as directly as possible to the source.

"Proper grounding is essential in all cases. A careless ground can cause more trouble than any other single thing. It is better to have no ground than a poor one, but where a ground is essential it must be a 'positive' one, not a 'taken for granted' type.

"Condensers in the A.C. line have not been found to make the slightest difference in helping to eliminate blanketing and cross-modulation interference. The exception which proves the rule however is parallel wiring. Some houses are wired with this type of installation, now obsolete. It will be found that such house wiring has been installed for many years and is generally external, running along the walls mounted on porcelain stand-offs. An aperiodic condition is usually built up around this type of wiring which definitely affects any signal at or near the natural period. It is therefore absolutely essential that such wiring systems be detuned."

WHOLESALE'S WORLD

- unusual series of conventions and shows
- monthly slant on distributor activity

★ Extraordinary activity will be noted among jobbers from May 13 to June 15. More distributors will be away from their offices during that period than at any time since 1930, according to observers.

National distributor conventions staged by set manufacturers to present new lines, began after the first week in May. Series of these huddles will barely be over before the National Radio Parts Trade Show has its gala opening in Chicago, June 10. Schedule of these main events will be supplemented by the usual string of special group meetings and individual confabs held by separate firms.

General outlook for the new season is so bright that neither the executive nor the salesman is willing to miss the lively May-June events.

★ E. O. Reinhardt has purchased entire interest in the Radio Service & Supply Co., jobbers of Colorado Springs, Colo.



As UP-TO-DATE as it looks

Manufactured by the makers of the original streamlined "BULLET MICROPHONE." The "BULLET-PHONE" is compact . . . good-looking . . . simple to operate. These are but few of the features that make it a winner in this new, rich market.

You've found that the "BULLET" microphone has what it takes to get results. You'll find that the easily installed "BULLET-PHONE" provides the answer for quick sales and profits.

TRANSDUCER CORPORATION
30 Rockefeller Plaza
New York, New York

★ Trilling & Montague, Philadelphia jobbers, have announced the appointment of E. S. Germain as sales manager of a newly organized Zenith radio division. Widely known in the area as "Brownie," Germain is a vet representative for Zenith as well as the Trilling firm.

★ New and exclusive distributors for Philco in the Buffalo, N. Y., area are Appliance Wholesalers, Inc., that city. Firm is headed by W. E. Henning.

★ Recent stunt at Brown Supply Co., jobbers of St. Louis, Mo., has been reported by P. A. Ware, firm exec. Copies of "The Grunow Guide" were distributed from holders on the backs of seats in St. Louis trolley cars, carrying an offer of a jar opener to be obtained at dealers' stores. Result was that the month's radio sales were 50 per cent ahead of the previous month.

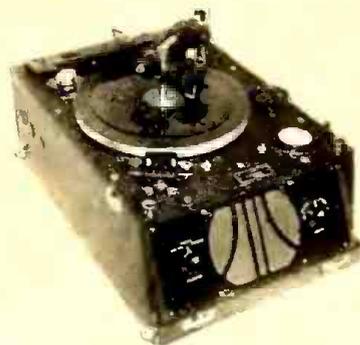
★ Sager Electrical Supply Co., prominent New England jobbers, recently celebrated their 50th anniversary. Joseph E. Sager, head of the firm, received a mass of congratulations and other execs of the company were heartily complimented. Main offices and one branch are in Boston, Mass., and the Sager Company has other Massachusetts branches in Cambridge, Quincy, Brockton, Lynn, Salem and Worcester.

★ Republic Supply Corp., Detroit jobbers, are now exclusive distributors for Crosley in Detroit and eastern Michigan. Republic absorbed the Kent Distributing Co. and named its manager, Kent Zimmerman, as vice-president. President of Republic is A. H. Zimmerman, and M. B. Goble is sales manager.



C. G. Taylor, vice-pres., True & Blanchard, jobbers of Newport, Vt., lately active in dealer showings of Fairbanks-Morse.

DEALERS PROFIT THREE WAYS ON PRESTO RECORDING EQUIPMENT



NATIONAL advertising has developed good prospects for the Presto Recorder in all important cities. Often a single demonstration of the machine closes the sale.

But in addition to machine sales . . . you will find that your own customers . . . particularly musicians, music students, radio artists, dramatic students, salesmen, lawyers and public speakers . . . will pay good prices for recordings of their own voices or playing.

Besides . . . the Presto recorder is a star display . . . a novelty that never fails to attract attention.

FOR PROOF . . . READ WHAT OTHER DEALERS SAY ABOUT THE PRESTO RECORDER. A folder describing the experience of Presto dealers will be sent on request, also literature and sales promotion data.

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

WORLD'S LARGEST MANUFACTURERS
OF INSTANTANEOUS RECORDING
EQUIPMENT

SUMMER PACE IN NEW APPLIANCES

Radio men turn to merchandising "betteraire"

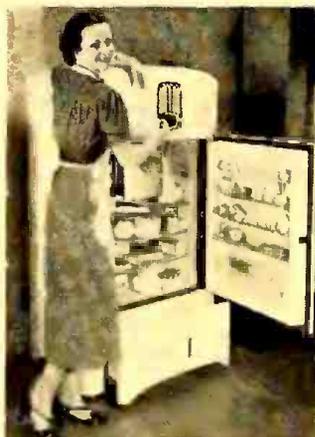
★ SELLING SEASHORE atmosphere to homes and offices has some new advantages for the radio dealer as he wades into summer merchandising.

Via the new portable summer air-conditioners, the radio man can offer a deal of satisfaction to his patrons. Personal, consistent economical relief from summer heat is widely regarded as something basically easy to get across to buyers. For one thing, he can talk about "cool listening" to the millions of persistent radio fans in the country.

Dealers say frankly that there is little about air conditioning that they don't understand; many of them have successfully sold and serviced refrigerators long enough to know their way around among the principles of cooling, dehumidifying, deodorizing, etc.

Appeal upped

Air-Conditioner Manufacturers' Association and the Better Business Bureau got together and decided that summer air-conditioning should have three phases: cooling, dehumidifying, and circulating. However, new mer-



Built-in radio now optional on many Crosley "boxes."

chandise on the market today has the additional phases of ventilation, elimination of noise, deodorization and cleaning.

All this gives the dealer a more powerful sales argument, and along with improvements in finish, design and portability, the business seems ready to go to town.

The modern type of prospect is certainly conditioner-conscious because

the equipment has received a sensational play in theaters, department stores, restaurants, etc. He's a good bet to take on a similar type of comfort for his home and office, at the modest prices offered at this time.

Sales starters

Of great value to this business, according to field news, is the use of weather statistics in selling the room-coolers. Figures on average summer temperatures, data on humidity, and dope on standard health temperatures are things in which people are intensely interested. When a dealer collects these figures for his own special area, he has something of spectacular value in selling conditioners. This material lends itself neatly and effectively to use in advertising and store display.

Moving days and building activity, which are important at this season, provide a good "in" for conditioner salesmen. Much of the new merchandise is designed to fit into a window, and can be demonstrated nicely just as the family or office man settles into new quarters.

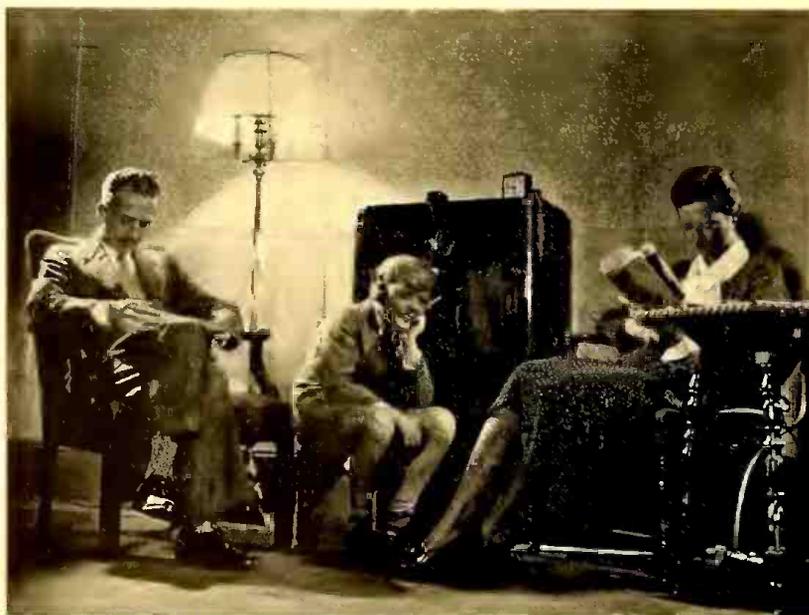
Most towns have some sort of "model home" on exhibition. These furnish a good place for dealers to install a new room-cooler, under perfect conditions, for some choice publicity.

★ Pleasantaire Corp. has started trailers on the road, nationally, as one means of contacting jobbers with the Northwind summer air conditioner. Outfit carries a long plug-in cord to hook up at distributor offices. Policy is to demonstrate for the jobber, and if necessary, for one of his dealers; if the dealer wishes, the display is taken on to one of his prospects as a test case.

★ Sullivan Motor Co., Sullivan, Mo., last month held a household appliance show which attracted half the population of the town. To women guests the hosts presented a potted flower; to the gentlemen, a can of enamel. Show featured Grunow radio and refrigeration, ABC washers and Universal ranges. Assisting the Sullivan proprietor, E. A. Benson, was Roy H. Echtenkemp of the St. Louis jobbers, Brown Supply Co.

★ All-product business done by Norge for the first quarter of this year, according to recent totals, is 32 per cent above the same period last year. Refrigerator biz alone is up 29 per cent.

SEASON OF OPEN WINDOWS STARTS A DEMAND FOR QUIET LISTENING



Private listening via headphones, a boon to this family and the one next door, thanks to Philco 'phone kit.

APPROVED! ACCEPTED! DEMANDED!

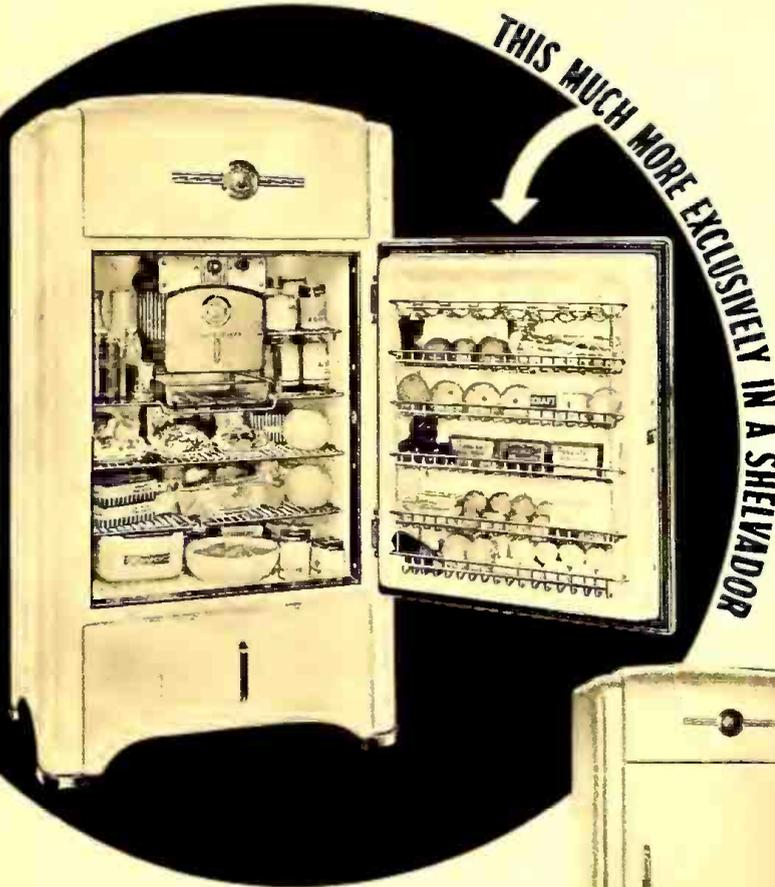
The Outstanding "Buy" in Electric Refrigeration

THE NEW 1937 CROSLY SHELVDOR

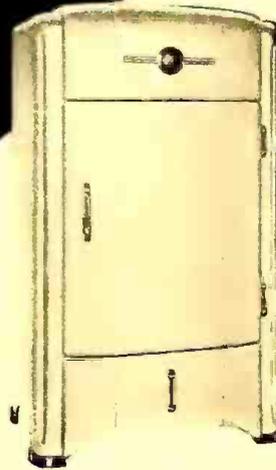
MORE BEAUTY • MORE ECONOMY • MORE CONVENIENCE • MORE USABLE SPACE • MORE ACCESSIBILITY



These features distinguish the Crosley ELECTROSAVER T-5 Hermetic Unit: Non-toxic Freon refrigerant . . . economical high side float expansion system . . . high reserve capacity, resulting in short running time, fast freezing and greater ice-making capacity.

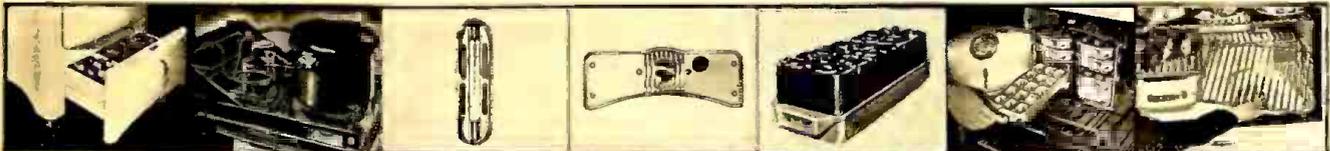


THIS MUCH MORE EXCLUSIVELY IN A SHELVDOR



Unreservedly approved as the accepted standard of value in electrical refrigeration, the new 1937 Crosley SHELVDOR now faces a nationwide demand. And everywhere they're buying the SHELVDOR *on sight* . . . for the SHELVDOR offers more visible quality, so many new demonstrable features. Crosley Dealers are reaping extra business and profits simply by *showing* the Shelvador's extra values. See your Crosley Distributor . . . and see the great SHELVDOR line that can make 1937 a record-breaking year for you.

Model illustrated is the SHELVDOR De Luxe HL5-71. Capacities: 7 cu. ft.; 16.77 sq. ft. Ten other Standard and De Luxe models from 3 to 7.1 cu. ft.



Stora-drawer for bulky non-perishable food.

Electrosaver Hermetic Unit. High efficiency low cost operation.

Built-In Thermometer for maintaining safety zone temperature.

18-Point Temperature Control gives desired fast or slow freezing.

Red Beetleware Cups for freezing salads or desserts.

Quick-Acting Ice Tray Release for easy access to cubes.

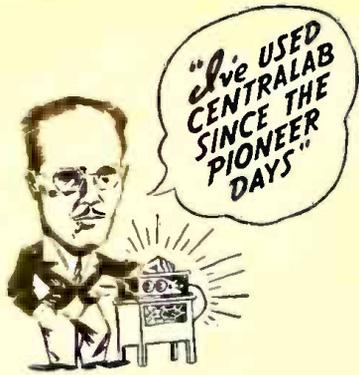
Removable Shelf Section accommodates roasts, turkeys and other large articles

THE CROSLY RADIO CORPORATION - CINCINNATI POWEL CROSLY, Jr., Pres.

Home of "the Nation's Station"—WLW—500,000 Watts—70 on your dial



CROSLY SHELVDOR
ELECTRIC REFRIGERATORS



—says Mr. Francis D. Wardner

of the WARDNER RADIO ELECTRIC CO. of St. Paul, Minn. Thanks, Mr. Wardner, and because we understand you are one of the outstanding service men in the Northwest, we are doubly proud of your testimonial of confidence in Centralab.

Since radio's pioneer days
Centralab
 has been building an outstanding "quality" control.

Remember "way back when" the good old "blopper" sets caused you no end of headaches. Even then you could always depend upon the smooth performance of one or more Centralab controls.



SERVICE MEN

everywhere are following Mr. Wardner's plan . . . by staying with CENTRALAB for all replacements. The famous non-rubbing contact insures smoother performance . . . and the long resistor element coiled on the inner-circumference maintains a more uniform taper. Insist on CENTRALAB'S for ALL Replacements.

Centralab

Milwaukee, Wis.

Division of Globe Union, Inc.

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

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

JOBBER NEWS

★ Following firms are announced as new distributors for Emerson: Holman's, Inc., Sumter, S. C.; Electrical Specialties Co., Detroit, Mich.; Nashville Chair Co., Nashville, Tenn.; Howard Bristol, Fergus Falls, Minn.; Commonwealth Utilities Co., Chicago; Arthur Fulmer, Memphis, Tenn.; Philadelphia Motor Accessories Co., Allentown, Pa.

★ Two lively dealer meetings have been held by Grunow jobbers. Griffith Distributing Corp., Cincinnati, sponsored a rally April 28th which attracted 200 dealers. The Ridge Co., South Bend, Ind., entertained 115 dealer guests the following day. At both meetings, Harry Alter, Grunow's director of sales, and J. J. Davin, sales promotion manager, were guests.

★ Herbert J. Cochran, proprietor of Ashland Radio Parts & Supply Co., jobbers of Ashland, Ky., has announced that he will cover a radius of about 75 miles with National Union, Radiart, Carron, Aerovox, Halldorson and Burgess.

★ R. B. Lacey, vice-president of the Clarion Corp., Chicago, makers of Clarion auto radios, has announced the following distributor appointments: Bell Radio Parts Co., Columbus, Ohio; E. L. Chambers & Co., Cincinnati; Taylor Supply Co., Harrisburg, Pa.; Alerson Sales Co., Bloomington, Ill.; Wayne Hardware Co., Ft. Wayne, Ind.; Capitol Furniture Co., Dayton, Ohio; Repass Auto Co., Waterloo, Ia.; Dakota Radio Corp., Yankton, S. Dak.; J. D. Fink & Co., St. Louis, Mo.; D. L. C. Co., Grand Rapids, Mich.; Chas. Held Co., Detroit, Mich.; Radio Parts Co., Milwaukee and Madison, Wis.; Lukko Sales Corp., Chicago.

Albert Middleman has been appointed district sales representative for western Pennsylvania and West Virginia. J. M. Cartwright will represent Clarion in the Southwest.



Nadisco, New Jersey jobbers, have opened a fourth branch. Shown here are Harry Newman, left, and Oluf Ingemann, right, firm execs. Center gent is Leroy Schenck of National Union.

★ W. E. Berndt, the jobber whose address has been 111 S. State St., Syracuse, N. Y., has moved to larger quarters. Berndt Co. will have larger display rooms, and will expand receiving and shipping departments.

★ F. B. Connelly Co., Northwest distributors for Grunow, has announced that it will again operate in the State of Montana. John D. Simons has been named district representative for that area, with headquarters at Connelly offices at 163 Lincoln St., Spokane, Wash. That branch has recently been expanded. Main office is mailing its new catalog to 2,000 dealers—a special book which can also be used as a retail salesman's catalog.



READY FOR SUMMER are the Seattle jobbers for Philco, Sunset Electric. Snapped on Puget Sound (left to right): Eustace Vynne, Philco exec; A. E. Griswold, yacht owner; and R. A. Browne, Sunset sales manager.

NEW BOOKLETS

★ First issue of "InstrumentTopics," published by Clough-Brengle Co., 2815 W. 19th St., Chicago, Ill., has been released for "the users of electronic instruments."

★ New folder titled "New Super-Pro by Hammarlund" is ready for distribution, complete with popular technical information, curves and illustrations. Lewis Winner, an executive of the Hammarlund Mfg. Co., Inc., 424 W. 33rd St., New York City, will forward a free copy to anyone interested.

★ Available from Cornell-Dubilier jobbers is a new chart, vest pocket size, illustrating the standard RMA mica capacitor color code. This code has been substituted for the usual numerical identification, because of the compactness of modern capacitors.

★ Newly revised edition of a "T Line" catalog has been announced by Kenyon Transformer Co., Inc., 840 Barry St., New York. This 16-page booklet presents complete information on Kenyon audio and power components for P.A. and amateur; listed also are the new Universal Ken-Formers.

★ Issued by Kato Engineering Co., 530 N. Front St., Mankato, Minn., is a new illustrated folder on "A.C. Electric Plants."

★ American Microphone Co., 1915 S. Western Ave., Los Angeles, Calif., have released a new catalog, No. 25A, describing their dynamic microphone. This and other American booklets are available upon request.

★ Just off the press is a new ARHCO catalog, showing and describing more than 2,000 items involved in radio, sound and television. Servicemen, engineers and hams are invited to write for a copy to American Radio Hardware Co., Inc., 476 Broadway, New York.

★ Miles Reproducer Co., Inc., 112 West 14th St., New York, has released four new bulletins on intercommunicators and sound apparatus, to be sent free to all radio men requesting them.

★ Ready to be sent on request is a new folder, "Radio Equipment Protection," issued by Heinemann Elec. Co., Trenton, N. J. Bulletin describes a Re-Cirk-It combination switch and circuit breaker, as well as safeguarding measures on tubes, transformers, condensers.

★ Rotogravure catalog, designed to aid dealers and servicemen in selling P.A., has been issued by Radolek Co., 601 W. Randolph St., Chicago. The book lists "everything in sound" and will be sent on request.

★ Just issued by The Turner Co., Cedar Rapids, Iowa, is a new 34-page catalog covering microphones, amplifier systems and inter-office equipment.

★ Bulletin describing auto radio controls for installation on instrument panels in '35, '36, '37 cars or under the dash of any car has been announced by Crowe Name Plate & Mfg. Co., 1771 Grace St., Chicago. Booklet No. 202 includes data on what controls to use with each of 100 different car radio models, and will be sent on request.

★ New 12-page booklet on "SVEA Electrical Iron and Solecore" has been issued by Swedish Iron and Steel Corp., 17 Battery Place, New York. The publication describes the company's magnetic material, made of a specially refined Swedish iron and furnished exclusively for the radio and electrical industries.

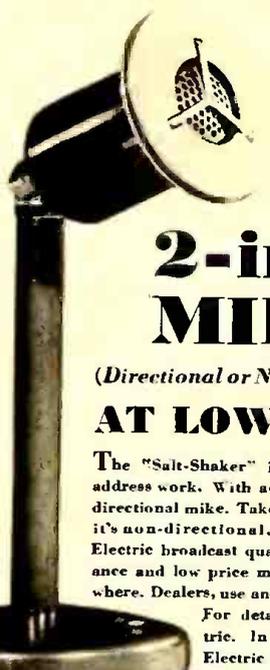
HICKOK INFINITE OHMS PER VOLT WITH MODEL 4900 D. C. POTENTIOMETER TYPE NO. CURRENT VOLTMETER



THIS INSTRUMENT measures voltage in high resistance networks as well as usual AC and DC volts, milliamperes, decibels, inductance, impedance, resistance and capacity. Built-in power supply furnishes balancing voltage—adequately filtered—so instrument may be connected to grids in ANY CIRCUIT without disturbing operation of set. This instrument gives COMPLETE COVERAGE FOR RADIO TESTING.

Write for complete information on this and all HICKOK Radio Testing Equipment.

THE HICKOK ELECTRICAL INSTRUMENT COMPANY
10516 Dupont Ave., Cleveland, O.



2-in-1 MIKE

(Directional or Non-directional)

AT LOW COST!

The "Salt-Shaker" is ideal for public address work. With acoustic baffle, it's a directional mike. Take off the baffle, and it's non-directional. Regular Western Electric broadcast quality, high performance and low price make it a hit everywhere. Dealers, use and specify the 633A!

For details: Graybar Electric. In Canada: Northern Electric Co., Ltd.

Western Electric

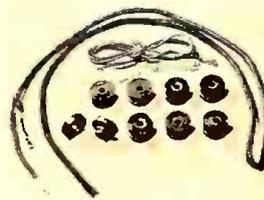
GRAYBAR ELECTRIC CO., Graybar Bldg., New York
Please send me new bulletin on Western Electric 633A Microphone. RT-5-37

Name.....
Address.....
City..... State.....

J.F.D. AUTO RADIO ANTENNAS

13 MOST POPULAR TYPES

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



Ask for Our Complete Catalog

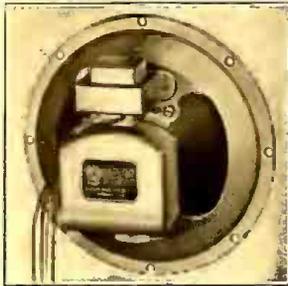


J. F. D. MANUFACTURING COMPANY
4111 Ft. Hamilton Parkway
Brooklyn, N. Y.



EVERY JOBBER

WILL
WANT
THE
NEW
SERIES
OF



QUAM DYNAMICS

"Radio's Favorite Voice"—with sensational advances in design, quality, craftsmanship and tone.

Interchangeable transformers
Standardized voice coil impedances
Armored field coils
Completely dust-proofed
Attractively packaged
5 to 12 in. 3.5 to 12 watts

Write or wire for bulletin No. 52 & 53
Licensed under QUAM Patents

QUAM-NICHOLS CO.

CHICAGO—33rd Place & Cottage Grove Avenue
NEW YORK, N. Y.—1674 Broadway



TRIAD

INVITES THE TRADE

TO VISIT

BOOTH No. 102

NATIONAL TRADE
SHOW

RADIO PARTS
MANUFACTURERS

AT

STEVENS HOTEL, CHICAGO

June 10-13 inc., 1937

• • •

TRIAD
MANUFACTURING CO.

INCORPORATED

PAWTUCKET RHODE ISLAND

The Quality Name in Radio Tubes

SUMMER NEWS

★ Special stand designed to aid in outside demonstrations of the Northwind summer air conditioner has been made available to dealers by Pleasant-Aire Corp., 304 E. 45th St., New York City. Gadget is arranged to set off the merchandise when taken into homes, without disturbing the prospect's room.

Firm has also prepared a series of window streamers, broadsides, display cards, booklets, etc., presented as sales aids.

CLOCK FOR SERVICE

★ Display unit for either day or nighttime use is a new electric clock being distributed by National Union. Face design is done in modern style in 5 colors and silver mirror; the lettering plugs service and parts, and is neatly illuminated. Used as a night display, it is described as capable of attracting attention a block away.

METAL FOIL DISPLAY

★ Tube industry gets a new kind of display as the Arcturus Radio Tube Co., Newark, N. J., issues a new one printed in colors on metal foil. Special design gives the item a 2-plane effect, so that the large size tube shown in the display has an actually rounded appearance. Display measures 24 by 18 inches.

DESK STAND CONTEST



★ Amperite Co., 561 Broadway, New York City, wants a name for its new microphone desk stand. On this product, the mike is placed horizontally and can be rotated in practically any position. Name plate will accommodate letters up to ten.

First prize for the best name is a complete mike and stand; ten next best names will get a stand. Contest closes July 1; judges are John Rider, publisher, and Joseph Kaufman, National Radio Institute. Entries are to be sent to Amperite headquarters.

New series of sales helps for sound men are also being issued by Amperite. Material will be available on request to those who indicate promptly that they wish to be on the mailing list.



Do *You*
Know all
About

AUTOMATIC DIAL TUNING

New Radio Developments Create

A Demand For More Highly Trained Men

You need more than a pair of pliers and a screwdriver to repair the complex troubles that the new receivers can develop. Years of actual service experience went into the planning of this complete course for professional Servicemen. Start anytime—take up to 3 years to complete.

ADVANCED TRAINING IN RADIO SERVICE AND PUBLIC ADDRESS

Terms As Low As \$5.00 Monthly

WRITE TODAY FOR OUR
FREE BOOKLET

"THE KEY TO
SUCCESSFUL SERVICING"



If you are anxious to make more money in the Service field read this interesting book—and benefit by it as so many others have done. A post card mailed today is all you need.

RADIO SERVICE INSTITUTE

SUBSIDIARY OF CREI

Dept. RT-5, 3309 14th St., N. W., Washington, D. C.



Kills that Noise!

★ Line noise filter. Plugs into outlet. Wall plate screws hold and ground.

★ Front receptacle takes power plug of set. No wiring, fussing, guessing.

★ Type IN-25 sells for only \$1.75 list. Every set owner a "hot" prospect. Why not handle this profitable accessory?

Ask for DATA . . .

Catalog covers this and other line-noise filters. Also condensers and resistors.



SERIES OF PRIZES

★ "Best Letter Contest" has been started by Radiobar in the metropolitan New York area. Dealers have been supplied entry blanks and window stickers to attract entries among both present owners and non-owners. Two winners will receive radiobars as prizes and complete glassware sets will be awarded other ranking letters. Judges are C. T. Hillman, Radiobar's eastern manager; Joseph Reiss, Reiss Advertising Agency; and Dr. O. H. Caldwell, Editor of Radio Today. Stunt may be used nationally by Radiobar.

BIG BIZ IN SMALL RADIO

★ Along with a series of preliminary letters and a follow-up campaign, Emerson has promoted summer selling with the publication of a book, "The Big Business of Small Radio." Volume is designed in a lively fashion for educational and institutional values.

"Distributors have ordered these books by the thousands to send to their entire list of dealers and prospects," is the statement of Nate Hast, Emerson's general sales manager.

ROLL-AROUND DEMONSTRATOR

★ As a part of a new Arvin floor plan deal, Noblitt-Sparks, Columbus, Ind., offer a car radio demonstrator to be used as a roll-around display. This gadget comes with an assortment of other sales helps, including a 10-foot cloth banner in 3 colors.

★ New folder presenting a list price schedule on ground rods has been released by Burch Presteel Products Co., Chattanooga, Tenn.

★ Railway Express Agency, 230 Park Ave., New York City, has issued a folder explaining its nationwide collection service. Copies will be sent free to those requesting them.

★ Offered free to radio servicemen is a new edition of the tube characteristic sheet, presented by Hygradeylvania Corp, Emporium, Pa. Chart is designed for a 3-ring binder, or for wall use.

★ New 16-page booklet titled "1937 Vibrators and Converters" has been issued by Electronic Laboratories, Inc., Indianapolis, Ind.

★ Tobe Deutschmann Corp., Canton, Mass., has released a new 8-page booklet on filterettes. Catalog has detailed data on elimination of man-made static and will be sent free.

★ Parts and accessories catalog is now available from RCA distributors. Catalog features test equipment, servicing tools, service specialties, replacement and universal type parts, amateur receiving and transmitting equipment. Rear section of booklet devoted to a replacements parts guide and cross index for RCA, Graybar, G-E and Westinghouse sets.

★ Brand new catalog for radio parts jobbers has been issued by The Muter Co., 1255 S. Michigan Ave., Chicago. Booklet lists resistors, condensers, switches, decade boxes and other products.

COULD YOU SELL

A BEAUTIFUL WALNUT CONSOLE RADIO WITH

REAL AUTOMATIC TUNING

AT \$54⁹⁵??

NEWS FLASH:

COMING JUNE 1

Grumow

MAKE every TEST — FIND every SHORT or LEAK



with MODEL TV—Dealers' net only \$27.95.

MILLION TEST INSTRUMENTS

MODEL TV, shown above, with brilliantly illuminated meter, combines the features of our finest tube tester and analyzer. All measurements are made using built-in power supply, giving voltages of 0-30-300-900 at 5000 ohms per volt and resistance readings to 15 megohms.

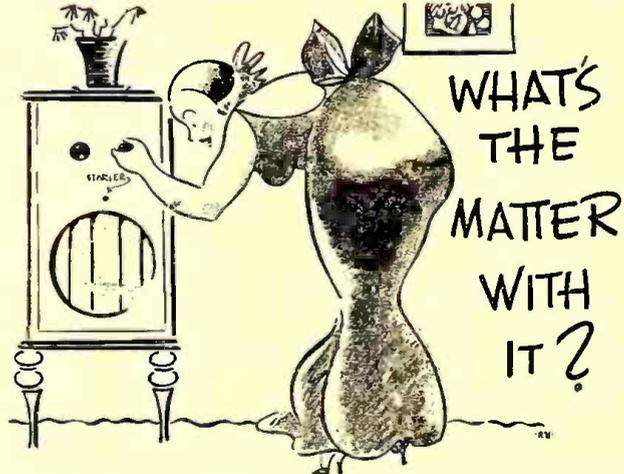
Neon test lamp in calibrated circuit shows shorts and leaks, up to 6 megohms, between elements with tube HOT. Finds cause of poor sensitivity and selectivity; oscillator instability, etc.—seldom shown on other testers.

OTHER FEATURES

Continuous line voltage adjustment—current ranges from 300 microamperes to 9 amperes—Direct reading by-pass condenser scale, .01 to 3MF—Large 3-in. square D'Arsonval meter with GOOD-BAD scale—Tests emission of all tubes; electrolytics for polarity and leakage—Power circuit fused and insulated from test circuits—Meets all requirements of portable and counter type—Weight 8 lbs. If your jobber cannot supply you order direct, giving name of your jobber.

MILLION RADIO AND TELEVISION LABORATORIES

671 West Ohio Street Chicago, Ill.



You should know. It only needs circuit checking and the replacement of burned out parts and the set will be as good as new. And give her a break. Use Ward Leonard Replacement Resistors. They are conservatively rated so give satisfaction. Send for Bulletin 507A which lists units available and gives list price.

Visit our Booth No. 107 Radio Parts Show.

WARD LEONARD ELECTRIC CO.

40 SOUTH STREET, MOUNT VERNON, N. Y.

Please send me your Service Man's Bulletin No. 507A.

Name
 Address
 City State
 Jobber's Name

AUTO-RADIO Re-Installations

Get your share of
these 1,016,313
new jobs!

Field surveys reveal a vast new market for dealers and service men in transferring old radio sets to new cars—modernizing, re-installing, converting.

Now you can transfer
ANY SET to ANY CAR



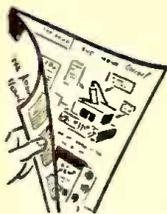
With patented UNIVERSAL CONTROLS you can get your full share of this valuable replacement business. Installations are made quickly and easily—without cutting or drilling the dash.



Pre-Assembled!

UNIVERSAL gives you a preassembled, single-unit control to fit any car radio—together with the proper plate to perfectly match the instrument board.

Universal
DASHBOARD CONTROLS



Mail coupon
today for the
New 1937 catalog

UNIVERSAL CONTROLS, INC.
21-07 40th Ave., Long Is. City, N. Y.

Please send your new catalog C-3.

Name

Address

Dealer Serviceman Jobber

TRADE THEME SONGS

— industry turns to fair trade enforcement

— sales increases prompt many expansions

★ Field questions which arise from every-day application of the new fair trade laws are all mixed up with selling plans for the new season.

Some of the problems, which the trade itself must answer, are:

What attitude should trade association groups take toward the passage of the Miller-Tydings Bill? Should an attempt be made to force it again to the immediate attention of Congress?

What would be the result of enforcement of the Miller-Tydings Bill in terms of higher retail prices?

Would such a law discourage the small manufacturers of trade-marked radio, whose chief customers are now selling mainly on price appeal?

Would a national fair practice law establish a trend toward more government control in business?

If the radio trade can agree on price policies, is it possible that they may learn to agree on other questions also?

★ Solar Mfg. Corp., 599 Broadway, New York, has leased an additional factory on West 23rd St., Bayonne, N. J., which adds about 75,000 feet of floor space to plant capacity. Departments for making electrolytic condensers have been moved to the new quarters in Bayonne; general offices and other department will remain at 599 Broadway.

★ Recent speakers at meetings of the Association of Radio Service Engineers, Buffalo, N. Y., were John Rider, publisher; Harry Kalker, sales manager for Sprague Products Corp.; Billy Thomas, Radiart engineer; and Walter R. Jones, Hygrade-Sylvania engineer. Association recently staged a membership drive and 44 new members were admitted. Quarters of executive secretary A. J. Schreiber are at Box 597, Buffalo.

★ Group of 15 independent appliance retailers of Milwaukee recently met and decided "to set up a permanent merchandising committee to bring about collective action on merchandising problems." All other dealers in the area will have a chance to take part when the movement is fully organized; one of the policies to be considered is the application of Wisconsin Fair Trade Acts. Gordon Ische, of Ische Bros., was elected chairman and Frank W. Greusel, president of the Wisconsin Radio Refrigeration & Appliance Ass'n, has assured the group of the interest and cooperation of his organization.

★ New radio specialist for GE in the Allentown, Lancaster and Williamsport areas in Pennsylvania is Lee Cooper. Also announced by the company is the appointment of Shelby York as a radio specialist on the West Coast with headquarters in San Francisco.

★ High point in the expansion program of the Majestic Radio & Television Corp., Chicago, according to president N. L. Cohen, is the recent move by the company to a new building at 50th and Rockwell Sts. This modern plant occupies 90,000 sq. ft., has a capacity estimated at 2,500 sets daily, and will employ about 1,500 persons. Newly appointed chief engineer is Chas J. Hirsch, and named as his assistant is Walter Lyons. Advertising experts Morris & Davidson, 430 N. Michigan Ave., Chicago, have been appointed to handle Majestic's campaigns.

★ Harry J. Scheel, manufacturers' representative at 330 S. Wells St., Chicago, Ill., has announced that several of his foreign buyers are interested in locating suitable suppliers for the following products to be used for army or governmental purposes: commercial short-wave receivers, telephone switchboards, telephones, and electro magnets.

★ Along with the appointment of John S. Meck as president and general sales manager of the newly formed Electronic Design Corp., comes the announcement that factory and general offices are located at 164 N. May St., Chicago. Manufacturing and merchandising, through regular jobber channels, of a complete line of sound amplifiers and accessory equipment is under way.

Mr. Meck's selling plans were announced only after he had contacted dozens of jobbers, to get the latest angle on their problems. He has been active in radio for 12 years; his experience has been with Jewell, Operadio, Thordarson, Pioneer Generator, Hallicrafters, Continental Carbon and Clough-Brengle.

"The World's Best Value"

KADETTE RADIOS

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

American **DYNAMIC**

- Exceptionally Rugged
- High Output, Low or High Impedance
- Minimum Feedback
- Immune to Temperature Changes
- Excellent Frequency Response



**Multi-Purpose
Modern Design
Low Price**

Approaches the ideal for general use due to its versatility and dependability

The D-5-T 10,000 Ohms Imp.
List Price \$32.50

The D-5 50 Ohms Imp.
List Price \$27.50

(Both include 25' cable and plug)

Write Today for Free Catalogue on **DYNAMIC, CRYSTAL, CARBON and CONDENSER MICROPHONES, STANDS and ACCESSORIES.**

**AMERICAN MICROPHONE CO.
INC., LTD.**

1915 S. Western Ave. Los Angeles, Cal.



Earl Dietrich, president of the fast-growing "Representatives."

★ Active in all large U. S. cities is an organization in the radio parts field, "The Representatives." Membership is limited to salesmen representing parts manufacturers; any such salesman operating in the nation is eligible.

National officers for the group are Earl Dietrich, president; Perry Saftler, vice-pres.; and Dave Sonkin, secretary-treasurer (offices at 220 E. 23rd St.). D. R. Bittan, who is chairman of the membership committee, says: "Our membership at present numbers between 90 and 100 in big cities from coast to coast; New York group is the largest and their meetings are held first Tuesday of each month. We hold two annual meetings, at the Chicago parts show and at the New York parts show. We do not include any jobber salesmen or set-manufacturer salesmen."

"The Representatives" held one of their regular get-together open meetings on May 4th, at the Yacht Club, 38 W. 52nd St., New York, with a banner attendance and a snappy program. In the absence of President Earl Dietrich, who was out of town on a business trip, the committee-in-charge, consisting of Perry Saftler, J. P. Price and Marty Camber, welcomed the members.

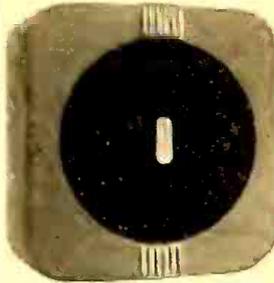
★ Series of national field service meetings were sponsored by GE April 1 to May 15 in 151 of the big U. S. cities. Factory engineers lectured on such topics as noise limiters, phase inverters, AFC, etc.; attendance was estimated at 6,000.

★ Bendix Products Corp., South Bend, Ind., has dispatched a fleet of "Bendix Day-Rad radio service system educational cars" to contact radio dealers and distributors in all parts of the nation. Each car is equipped with a complete ensemble of radio testing instruments.

The *New* **SUEDE CABINET**

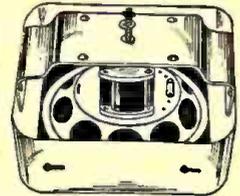
Made of steel, yet having a soft Suede finish that is delightful to the eye and touch, these cabinets are causing the sensation they are entitled to.

Equipped with the famous Nokoil Speakers, they are perfect for hotels, apartment houses, call systems, automobiles, "Talk-Bak" systems, etc., etc.



The 8-in. Suede Vehicle Cabinet with its taupe finish and black grille enhanced by the bright polished ornaments.

See how adaptable it is. Either base or single stud mounting, yet no bolt is screwed into the speaker pot to throw the pole piece off center.



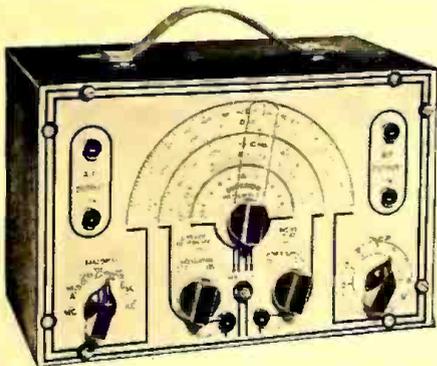
Wall cabinets are finished in taupe with a light brown grille which blends perfectly. Our new novel method of fastening the cabinet to the wall makes it unremovable without a special tool.

Write for complete information on our Suede Cabinets with Nokoil Speakers, Wright-DeCoster distributors are always anxious to cooperate.

WRIGHT-DeCOSTER, Inc.

2265 University Avenue St. Paul, Minn.
Export Dept.: M. Simons & Son Co., New York
Cable Address, "Simontrice"
Canadian Office: Associated Sales Co., Guelph, Ont.

A SUPERIOR VALUE!



LOWEST-PRICED direct frequency-reading all-wave signal generator, this instrument, accurate to 1% on i-f and broadcast bands, 2% on short waves, covers 100 kc. to 22 mc., all on fundamentals, in five bands. It is switch-controlled, has attenuator, and enables also leakage test of condensers, tubes, etc. It has sine-wave r.f., also separate modulator, cut in or out by switching.

This instrument works on 90-130 volts, a.c. or d.c. If a.c. is used it may be of any commercial frequency. Tubes are oscillator, rectifier and modulator. R-f output may be at high or low impedance, from separate posts. Also separate audio output.

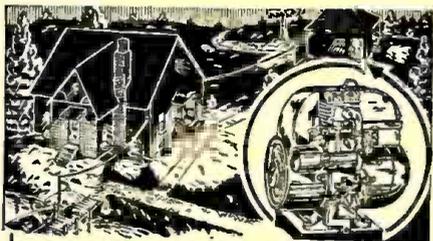
Housed in black wrinkled finished shield cabinet, with carrying handle, the signal generator, 5 lbs. unpacked, is easily portable. Order Oscimeter Model T-40, complete with tubes (shipping weight 6 lbs.).....

\$10.40

**SUPERIOR INSTRUMENTS CO.
136 LIBERTY ST., NEW YORK, N. Y.**

Enclosed find \$10.40. Please ship MODEL T-40.
 Please send new 1937 catalog.

NAME
ADDRESS
CITY STATE



Complete Electric Plants

ONAN ALTERNATING CURRENT GENERATING PLANTS furnish the same electricity as city power lines. Made in sizes 350 to 10,000 watts to meet the requirements of those who must provide their own electricity for Farms, Summer Camps, Cottages, Boats, Commercial Purposes.

OPERATE A. C. RADIO

These A. C. Plants operate RADIO, HOUSEHOLD APPLIANCES, WATER PUMP, MOTORS — anything that normally would operate from city lines. Will run Public Address Systems, Demonstrating Car Equipment, Talking Moving Pictures, X-Ray.

MODERN CONSTRUCTION

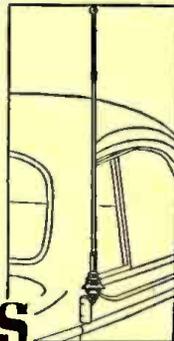
ONAN PLANT Engines are like the Motor Car, Truck or Tractor Engines. Operate on Gasoline, Gas or Distillate. Wiring and Installation is the same as for standard applications. Also 32 volt, Direct Current Models. Write for Details

D. W. ONAN & SONS

573 Royalton Ave. Minneapolis, Minn.

Here is the...
CORONATION

MODEL C. O. — \$2.45



**WARD'S
SENSATIONAL
HINGE AERIAL**

Telescopic
Extends to 54 inches. Made of Stainless Steel and Chromium Plated Brass. Molded Power House Type Insulation.

PROMPT DELIVERIES

**WARD PRODUCTS CORPORATION
MANUFACTURES THE WORLD'S
FINEST LINE OF AERIALS
TOP -- POLE -- UNDERCAR
SEND FOR CATALOG TODAY**

WARD PRODUCTS CORP

WARD BUILDING

CLEVELAND, OHIO

From an Acorn to an Oak

A SOUND BUSINESS STRUCTURE
IS THE RESULT OF PRODUCING

QUALITY

MANY YEARS' EXPERIENCE, PLUS SOUND ENGINEERING AND RESEARCH IS OUR STATUS

THAT IS THE REASON

**ARISTON PRODUCTS
GIVE UNINTERRUPTED SERVICE**

THE CHOICE OF MANY LEADING
SET MANUFACTURERS



Electro
Dynamic
and
Permanent
Magnet
Speakers
5—6½—8"

Dry-Wet
Electrolytic
Condensers
By-pass
Condensers

**ARISTON
MANUFACTURING CORP.**

4045 Diversey Parkway

Chicago, Ill.

Send for our late catalogue

Name

Address

Jobber Dealer

ON THE TRADE TICKER

★ **Mort Duff**, veteran farm products advertising expert, has been named advertising manager for **Win-charger Corp.**, Sioux City, Iowa. Duff is widely known in the Chicago area as well as in Iowa.

★ **Factory personnel** at the **Arc-turus Radio Tube Co.**, Newark, N. J., has been increased in all departments of the plant. **C. E. Stahl**, vice-pres. and general manager, reports that "production at this early date this year is running ahead of 1936 peak months."

★ **I. J. Owen**, president of **Utah Radio Products Co.**, Chicago, was a visitor to the Eastern trade recently, calling upon manufacturers, accompanied by **J. B. Price**, Eastern sales manager. Mr. Owen was delighted with the progress Utah has made in the Eastern territory the past year and was particularly pleased to find a spirit of confidence and optimism among set manufacturers, with many important features in readiness for the new season.

★ **Perry Saftler**, popular manufacturers' representative and vice-president of "The Representatives," moved on May 1st to 53 Park Place, New York, where much larger floor space and increased facilities will give him an opportunity to keep pace with his fast-growing business.

★ Recently appointed as representatives of **Hickok Electrical Instrument Co.**, Cleveland, Ohio, is the **H. W. Groetzinger Co.**, 1823 Morrell St., Pittsburgh, Pa. Groetzinger will cover western Pennsylvania and the state of West Virginia.

★ **Southwest District** of the **National Radio Service Association** has planned an elaborate set-up for the **Southwest Radio and Electronics Show** at the **N.R.S.A.** convention in Dallas, Tex., May 23, 24, 25. Over 1,000 pledges were secured from service men; Chambers of Commerce, utilities, newspapers, broadcasters, distributors and manufacturers' agents are helping to make the event a record-breaker.

★ **Turner Co.**, Cedar Rapids, Iowa, has a new chief engineer in the person of **R. L. Thompson**.

★ **Promotions and appointments** of **RCA sales executives** are announced by **G. K. Throckmorton**, executive vice-president of **RCA Mfg. Co.** New positions are: **Vance C. Woodcox**, sales supervisor under the general sales manager of package goods merchandise, **H. C. Bonfig**; **F. D. Wilson**, manager of national field activities, headquarters at Camden, N. J.; **S. D. Camper**, central division manager, Chicago; **L. W. Teegarden**, eastern division manager; **J. W. Cocke**, western division manager; **J. E. Francis**, general supervision on the West Coast; **F. B. Ostman**, dis-

trict manager in Dallas, Tex.; **E. C. Cahill**, national service manager; **J. K. West**, district manager in New York; **H. H. Kronen**, district manager in Philadelphia; **W. H. Kelley**, district manager in Baltimore; **R. A. Forbes**, district manager in Minneapolis, Minn.; **H. A. Edwards**, assigned to the home office at Camden, N. J.; **N. A. Woodford**, district manager in Detroit; **E. S. Carter**, district manager in Seattle.

★ **H. J. Clippinger**, vice president of the **Continental Radio & Television Corp.**, Chicago, Ill., has announced a three-day convention for Admiral jobbers and the company's sales staff at Chicago beginning May 24th. A feature of the convention will be a tour of the new plant at 3800 West Cortland Street, Chicago.

★ **W. J. Bialosky**, who has been identified with several well-known organizations in Cleveland, has joined the sales staff of the **Universal Sound Systems, Inc.**, 6300 Euclid Ave., Cleveland, as district sales manager in charge of regional operations in Cleveland territory. **Lambert Friedl**, vice-president of the company, is planning to make other important additions to his sales staff in the near future.

★ **Members of the Eastern division** of **GE's field organization** met recently at Bridgeport, Conn., to preview the firm's 1938 battery sets and to outline sales plans. Field men present included **L. W. Yule**, **R. B. Gamble**, **D. W. May**, **W. P. Saunders**, **J. A. O'Brien**, **F. A. Ray**, **T. P. Begy** and **C. V. Chisholm**. Discussion heads were **E. H. Vogel**, manager; **C. M. Wilsou**, sales manager, and **C. T. Waudres**, ad manager of GE's radio division.

★ **New purchasing agent** for the mid-western division of **Wholesale Radio Service Co., Inc.**, is **William E. Vant**, who has been with the firm since the Chicago branch was opened. Vant will be assisted by **E. J. Dacanq**.

★ **Second meeting** of the **Radio Dealers' Organization of Central Pennsylvania** was held recently at Harrisburg, Pa., sponsored by **Ralph Peffer** of **Radio Distributing Co.** of that city. Event was well attended; and the speakers were engineers from **Supreme Instruments** and the **Radiart Corp.**

★ **Howard C. Briggs**, vice-president of the **Howard Radio Co.**, 1731 Belmont Ave., Chicago, has issued an emphatic reminder that there is absolutely no connection between his firm and the **Howard Radio Co., Inc.**, of New York City. The New York firm is involved in bankruptcy rumors.

Mr. Briggs says: "We have just completed the best year this company has ever had and now enjoy business from 125 distributors operating in protected territories."

1938 RADIOS

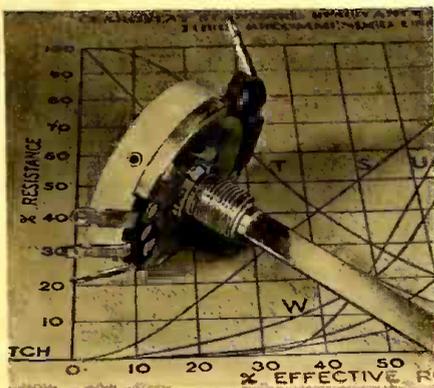
MUST HAVE

REAL

**AUTOMATIC TUNING
FROM
TOP TO BOTTOM
OF THE LINE**

Grunow

★
COMING JUNE 1



Precision!

★ Exact duplicate volume controls—precisely matching original resistance, taper, shaft, etc.

★ Accurate listing of sets and control equipment, eliminating all guesswork.

★ Controls that are best by test—electrically, mechanically, and life.

Send for DATA: Handy replacement guide aids you select right unit for any set. Your local jobber carries the stock.

CLAROSTAT

MANUFACTURING CO.
Incorporated

285 North Sixth St.
Brooklyn, N. Y.

★ Electrical Appliance Dealers Association, Inc., of Brooklyn, N. Y., has gone to work on the question of what application the New York state price maintenance law, the Feld-Crawford Act, will formally have on price schedules in its area. Association committee was appointed to discuss legal angles with representatives of manufacturers and jobbers, and all possible steps will be taken by the organization to encourage price stability. New York state law has been held constitutional, and Brooklyn dealers intend to have its benefits.

★ To contact radio set and equipment makers in the middle west, Wm. "Bill" J. Johnston has joined the equipment sales division of the Arcturus Radio Tube Co., Newark, N. J. Johnston headquarters will be at the Arcturus branch office at 1301 S. Michigan Ave., Chicago.

★ "Sid" Gatty, one of the best known and most popular sales representatives in the radio industry, has joined the sales staff of the Continental Radio & Television Corp. of Chicago. Mr. Gatty, who will make his headquarters in Philadelphia, will be in charge of a very important territory which includes Philadelphia, Baltimore and Washington.

★ Newcomer to the sales staff of the New England division of Tung-Sol Lamp Works, Inc., Boston, Mass., is Robert S. McArthur.

★ William W. Garstang, vice-president and chief engineer of the Electronic Laboratories, Inc., Indianapolis, Ind., just completed a swing around the Eastern circuit, including the trade in Canada. Norman Kevers, president of the organization, has also been out on the "firing line" calling upon manufacturers and jobbers in the Middle and South West. They both report keen interest in the June Trade Show throughout the industry, with a general activity reflected in good sized orders along the line.

★ Williams Hardware Co., Fort Smith, Ark., jobber, has opened an amateur radio department with a complete stock of ham parts.

★ Speaker at the April 23rd meeting of the Maryland Radio & Service Association, Inc., was John F. Rider, the famous radio publisher. Subject was "The Service Industry, Where Is It Heading?" Association is currently issuing lapel insignia, wind-shield cards, window placards, etc., to members; organization is also active in employment service and merchandise exchange. Quarters of secretary Wm. A. Thompson are at 4620 Schenley Road, Baltimore.

★ At a recent meeting of the Staten Island, N. Y., chapter of IRSM the speaker was Vinton K. Ulrich, technical editor of RADIO TODAY. Subject was "Automatic Frequency Control Circuits."

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

AUTOMATIC TUNING

**WILL MOVE INTO
NEW LOWER
PRICE LEVEL IN
1938**

NEWS FLASH

Grunow

COMING JUNE 1

**1937
RADOLEK**

the
Most Complete Radio

**BUYING
GUIDE
FREE!**

Everything in Radio

The completely revised Summer and Early Fall edition of the 1937 Radolek Profit Guide is just off the press. Over 1000 NEW ITEMS... plus an ADVANCE SHOWING OF 1938 RECEIVER MODELS. 164 Pages of valuable, detailed radio buying information... contains the most complete replacement parts listings of volume controls, condensers, transformers and vibrators. OVER 12,000 REPAIR PARTS—THE RIGHT REPLACEMENT ITEMS FOR EVERY RADIO THAT YOU WILL SERVICE. Radolek specializes in giving the radio-man what he wants, when he wants it, and at the right prices. Send for your Profit Guide NOW!

RADOLEK

601 W. RANDOLPH, CHICAGO, DEPT. D-7
Send me the Radolek Radio Profit Guide FREE.

Name

Address

Serviceman? Dealer? Experimenter?

IN THIS CORNER—

★ Thomas O'Loughlin, formerly general manager at Philco Radio & Television Corp. of New York, has been honored by a recent appointment as Philco factory sales executive in the metropolitan New York and New England areas. Hal Sheer, formerly general sales manager of the New York jobber firm, was promoted to general manager. Fred Ogilby is now sales manager of the company. Other appointments were Louis Schneider as New Jersey sales manager, and Sam Brownstein as Brooklyn sales director.

★ Shortly after the radio industry itself was 16 years old, the Hytron Corp., tube makers of Salem, Mass., celebrated their 16th year of operation, according to news from G. J. Hallam, Hytron sales manager. Affair was a local dinner, attended by company officials and 20 department store managers. On the program were Lloyd Coffin, president; Bruce Coffin, treasurer; and Richard S. Briggs, chief engineer.

★ Whitford Drake, formerly executive vice-president of Electrical Research Products, Inc., was recently elected president to succeed Edgar S. Bloom. Latter is president of Western Electric Co., the parent firm.

AT THE SHOW

★ List of those to exhibit at the National Radio Parts Trade Show at Chicago, June 10, 11, 12, 13:

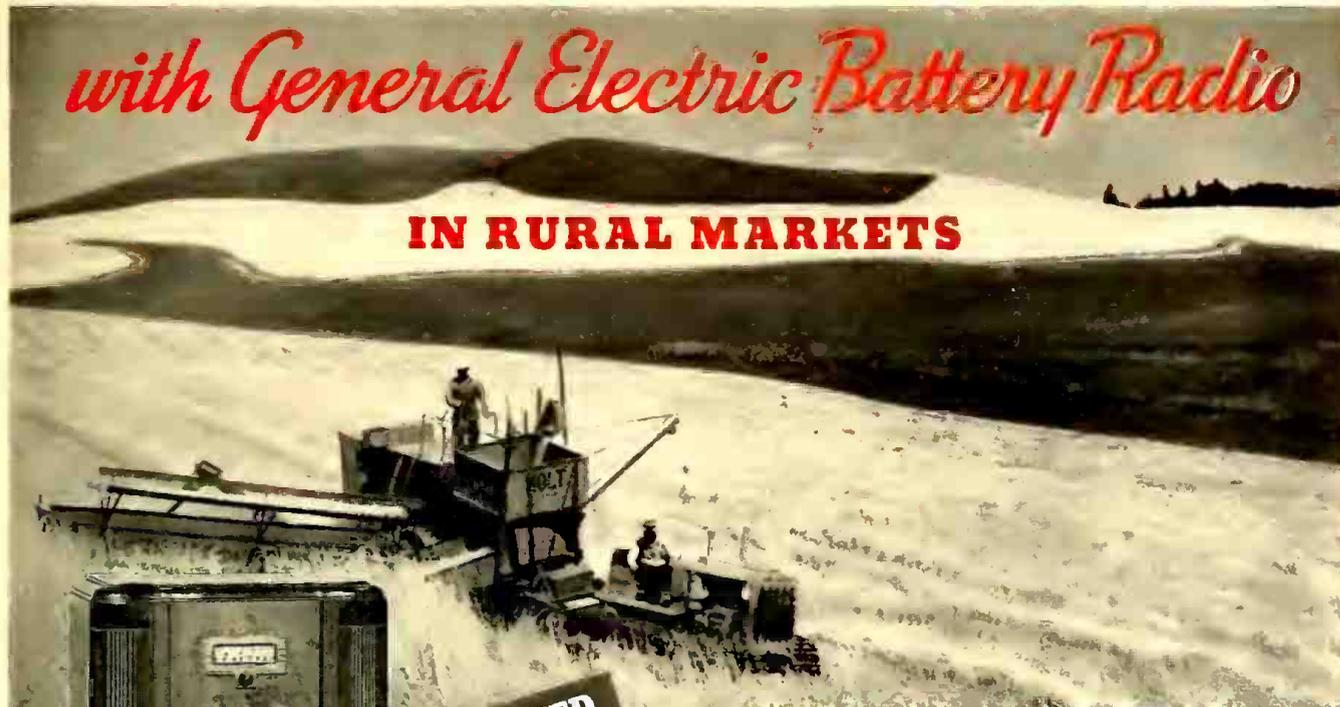
	BOOTH NUMBER
Aerovox Corp.	62
Aladdin Radio Industries	108
Alpha Wire Corp.	18
American Microphone Co.	28-R
American Phenolic Corp.	55
American Radio Hardware Co.	14
Amperex Electronic Products	64
Amperite Co.	36
Arcturus Radio Tube Co.	110
Astatic Microphone Labs.	118
Audak Co., Inc.	43
Belden Mfg. Co.	80-81
Bendix Products Corp.	46-47
David Bogen Co.	12
Wm. Brand & Co.	4
Bruno Laboratories, Inc.	3
Brush Development Co.	95
Bud Radio, Inc.	78
Burton-Rogers Co.	31
Breez-Electric Corp.	"D"
Allen D. Cardwell Mfg. Co.	29
Carron Mfg. Co.	66
Centralab ⁴	124-125
Cinaudagraph Corp.	19
Clarostat Mfg. Co.	120
Clough-Bréngle Co.	33
Continental Carbon Co.	112
Continental Diamond Fibre Co.	35
Continental Motors Corp.	30
Cornell-Dubilier Corp.	86
Crowe Name Plate & Mfg. Co.	92-93
Tobe Deutschmann Corp.	20-21
Drake Electric Works, Inc.	23
Hugh H. Eby, Inc.	85
Eddie Mfg. Co.	11

Electrad, Inc.	113
Electro-Acoustic Products Co.	17
Electro-Motive Mfg. Co., Inc.	13
Electronic Design Corp.	10
Electronic Laboratories, Inc.	32
Federal Microphone Stand Mfg. Co., Inc.	"C"
General Transformer Corp.	100-101
Edwin I. Guthman & Co., Inc.	106
Hallcrafters, Inc.	82-83
Hammarlund Mfg. Co.	68
Hickok Elec. Instr. Co.	130
Hygrade Sylvania Corp.	56-57
Indiana Steel Products Co.	7
Insuline Corp. of America	2
International Resistance Co.	84
Jackson Electrical Instr. Co.	76-99
Jefferson Electric Co.	116
Jensen Radio Mfg. Co.	53-54
E. F. Johnson Co.	63
Ken-Rad Tube & Lamp Corp.	61
Kenyon Transformer Co., Inc.	45
Kester Solder Co.	1
Kraeuter & Co., Inc.	37
Lenz Electric Mfg. Co.	60
Magnavox Co.	15-16
P. R. Mallory & Co., Inc.	89-90
Meissner Mfg. Co.	121
Micamold Products Corp.	98
Micarta Fabricators, Inc.	77
J. W. Miller Co.	88-R
Million Radio & Tele. Labs.	88-L
Muter Co.	129
National Union Radio Corp.	104-105
National Co., Inc.	"B"
Ohmite Mfg. Co.	117
Operadio Mfg. Co.	94
Oxford Tartak Radio Corp.	48
Park Metalware Co., Inc.	9
Parris-Dunn Corp.	8
Pioneer Gen-E-Motor Corp.	59
Quam-Nichols Co.	22
Radiart Corp.	55
Radio City Products Co., Inc.	67
Radiotechnic Labs.	127
Radio Retailing	103
RADIO TODAY	122
Radio Weekly	97
Raytheon Production Corp.	91
RCA Mfg. Co., Inc.	38-39
Readrite Meter Works	123
John F. Rider	34
Rola Co.	50
Service	111
Shure Brothers	71-72
Simpson Electric Co.	109
Solar Mfg. Corp.	75
Sprague Products Co.	49
Standard Transformer Corp.	73-74
Supreme Instruments Corp.	51-52
Technical Appliance Corp.	28-L
Thordarson Electric Mfg. Co.	128
Transducer Corp.	44
Transformer Corp. of America	6
Triad Mfg. Co.	102
Triplett Electrical Instr. Co.	79
Triumph Mfg. Co.	96
Turner Co.	24
United Catalog Publishers, Inc.	42
United Transformer Corp.	126
Utah Radio Products Co.	69-70
Ward Leonard Electric Co.	107
Ward Products Corp.	5
Earl Webber Co.	119
Webster Co.	114-115
Webster Electric Co.	25-26
Weston Elec. Instr. Corp.	40-41
S. S. White Dental Mfg. Co.	87
Wirt Co.	27
Wright-DeCoster, Inc.	58
Zenith Radio Corp.	"A"

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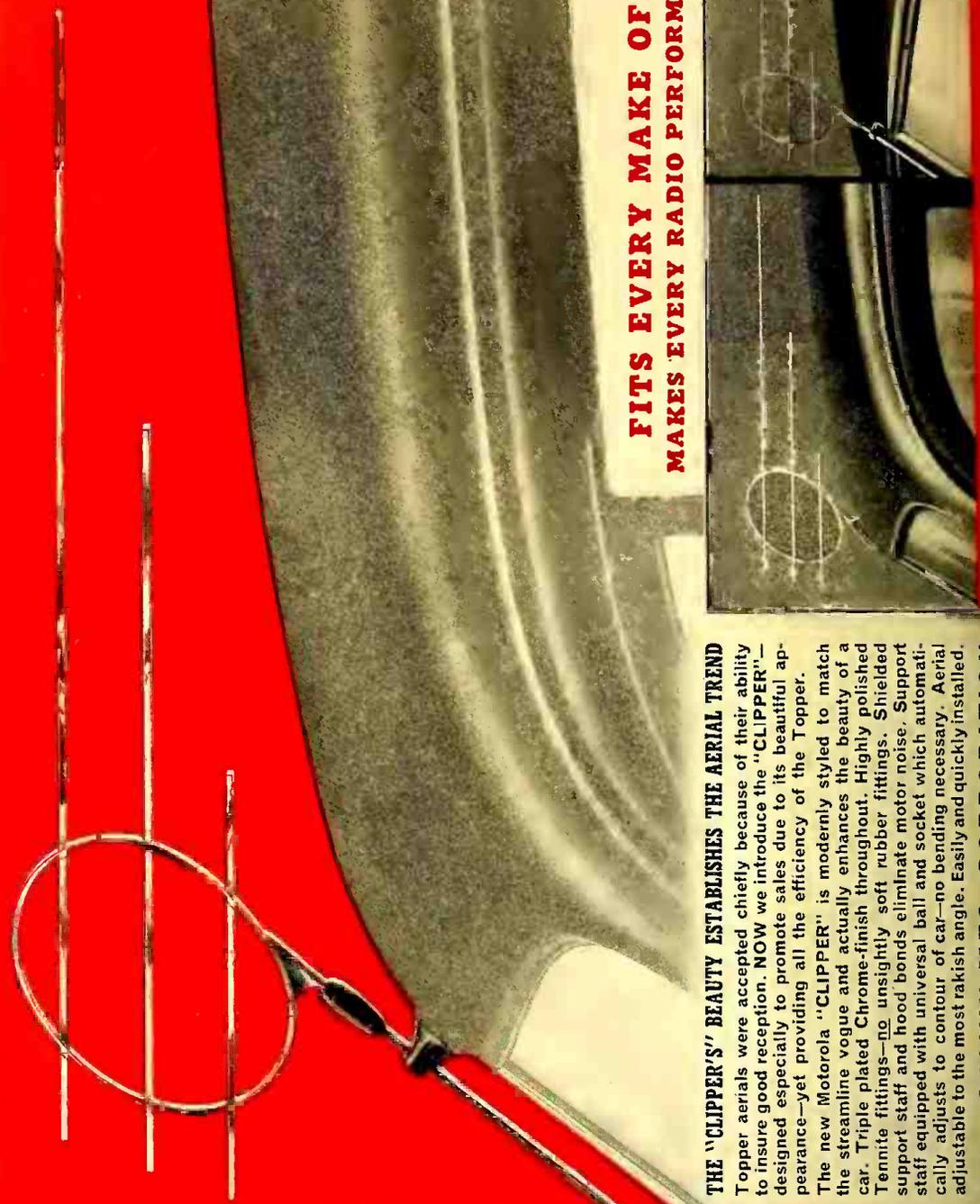
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