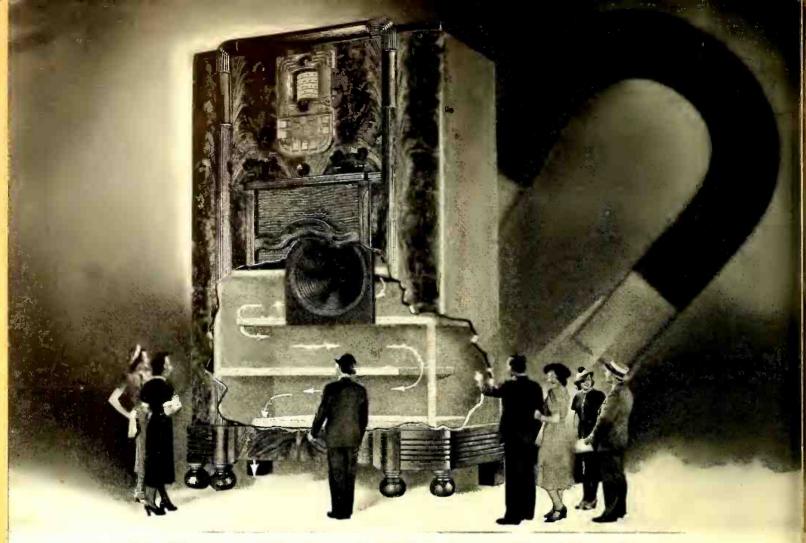


JULY, 1937
FARM RADIO

Our biggest unsaturated radio market. New 1938 lines. Musical opportunities.



LABYRINTH RADIO THE GREATEST SALES MAGNET IN RADIO

Stromberg-Carlson's new line carries 16 Labyrinth Models—in a wide range of styles and prices.

11 Standard Models—including the most advanced types of radio-phonographs.

9 Table Models—each of great beauty and with tone quality never before known in table radios.

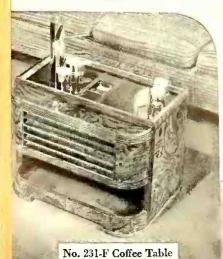
In this spectacular new line there is an easy selling, aggressively competitive model in every field and in every price class. There are cabinets that are conservative in design and cabinets that break away from all the old trends. There are new features galore.

Dealers and distributors everywhere who have seen it, are pronouncing it the greatest line in Radio!

Stromberg-Carlson radios range in price from \$57.50 to \$1050. Models with the exclusive Stromberg-Carlson Labyrinth from \$189.50. Antenna Kit \$7.00. (All prices slightly higher in Southeastern States and West of the Mississippi.)

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

THE Jurniture MODELS THAT ARE STARTLING THE INDUSTRY!



No. 240-S Drop-Door Console



No. 240-R Half-Round Conse



No. 240.W Mahogany Desk

There is nothing finer than a Stromberg-Carlson





MODEL 425 14 TUBES—3 BANDS



MODEL 400 12 TUBES—3 BANDS

DUCK SOUP for DEALERS

You Dealers and Distributors who are out for more business . . , listen to this:

We've been making quality radios for more than 16 years. Almost every hour of the day during that time we've had an eye on the radio market. We believe such long experience qualifies us, not only to build better radios, but also to better judge current trends and preferences.

In the New 1938 line of HOWARD A.C., Battery, and Automobile radios we believe we have what it takes to win the greatest number of radio buyers.

We have every worthwhile feature that 1938 will offer.

We have an entirely new system of motor-drive automatic tuning that brings 'em in to a split kilocycle.

We have true bass boost such as none has ever had before . . . even hair-splitting engineers call it perfect.

We have better, more attractive cabinets. . . . Each one an outstanding example of the cabinet-maker's art and a pace-maker in today's style trend.

We have value. None has ever dared question HOWARD quality . . . and at our new low prices none can challenge their value.

We extend full discounts to recognized Distributors and Dealers. With HOWARD quality and HOWARD prices it's in the bag!

If these facts interest you, wire or write for our Dealers' or Distributors' proposition. . . . Do it now while the thought is fresh in your mind!

HOWARD RADIO CO.

1731-35 Belmont Ave., Chicago, Ill.

Cable Address, HORAD



MODEL 250 FIVE TUBES—2 BANDS



MODEL 225 FIVE TUBES



MODEL 368 EIGHT TUBES—3 BANDS

The 1938 HOWARD LINE EMBRACES 18 MODELS A. C. SETS --- BATTERY SETS --- AUTO SETS

HINETSON PRESENTS



SAME LIST PRICES EVERYWHERE

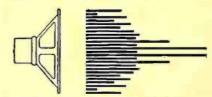
TABLE MODELS COMBINATIONS **CONSOLES · PORTABLES BATTERY · AUTO RADIO** PRICES SAME EVERYWHERE

Mechanical and Design Patents Pending

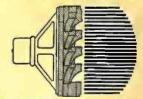
E LIMINATING the old fashioned "muffling" cloth of the speaker, the "Miracle TONE CHAMBER," in a series of seasoned wood deflectors, in the form of grooved louvres, causes a uniform diffusion and distribution of sound waves of all frequencies. It smooths out the drastic speaker resonances of ordinary radio and EQUALIZES the flow of tone. Instead of the usual "spotlight beam" of sound that comes from the ordinary radio it

extends the RANGE of the speaker to reach throughout the entire room.

Now, instead of the monotonous "boom" of low notes which overshadow the melody... instead of the unequal vibrations of upper and lower tones ... you get the full melodic richness of ALL harmonics and overtones, up and down the scale, which determine voice and instrument character.



ORDINARY Speaker and Grille High notes weak at outer ranges—sharp and penetrating in center of sound beam. Low notes "boom" and overshadow high notes in outer range—weak in center. Re-Low notes "boom" and overshadov notes in outer range—weak in center sult: UNEVEN, unnatural reception.



With "Miracle TONE CHAMBER" High and low tones are HARMONIZED. You get equalized voice and instrument volume and quality throughout the entire room or auditorium.

EMERSON RADIO AND PHONOGRAPH CORPORATION . 111 Eighth Avenue, New York, N. Y. "World's Largest Maker of Small Radios"

A New 1938 Line

E MERSON distributors everywhere are now showing the new 1938 line. With sweeping engineering advances, including AUTOMATIC TUNING... with even more beautiful styling... with large illuminated GEMLOID Dials... with COMPLETENESS of line for wide public selection... with GREATEST NATIONAL and LOCAL ADVERTISING SALES PROMOTION campaign in our history... it is a CERTAINTY that more thousands will buy Emerson Radio this year than ever before.

With Popular Prices ... Better Values ... HIGHER DISCOUNTS ... and the growing trend toward the purchase of MORE THAN ONE SET TO A HOME ...

EMERSON has a distributor and dealer proposition that has never been equalled.



BILLBOARDS, RADIO BROADCASTS, DIRECT MAIL

Dramatic, compelling — SELLING local promotion on a cooperative plan.



EMERSON "SILENT SALESMAN"

For FREE use of Emerson dealers. The most potent radio selling display ever produced.

"FREIGHT EQUALIZATION" PLAN, UNIFORM LIST PRICES AND MANY OTHER ADVANTAGES

Ask your distributor about Emerson's NEW constructive policies that give you an "edge" on competition.

Get the facts and materials which make it possible for you to DOUBLE your direct-selling results.

Look over the powerful displays—the newspaper ads, the attractive literature.

Look for the large Emerson broadside—soon to be mailed to you. Get the

Look for the large Emerson broadside—soon to be mailed to you. Get the details of Emerson's Finance Plan.

Before you consider ANY line—see what Emerson has to offer for 1937-38.



Full-page ads in Saturday Evening Post and Collier's. Powerful copy in such magazines as Ladies' Home Journal, Time, Esquire, Cosmopolitan, American Magazine. Reaching millions of prospective buyers—and drawing them to your store to see and hear the new Emerson sets.

Ask Your EMERSON DISTRIBUTOR

or Write or Wire Direct

Complete Descriptions, Facts and Figures Now Available...All Models Ready for Delivery.

EMERSON RADIO AND PHONOGRAPH CORPORATION . 111 Eighth Avenue, New York, N. Y.

(Cable Address: EMPHONOCO, N. Y.)

Semital RADIOS FOR 1938

ADMIRAL AC CONSOLES AND "ARMCHAIR" RADIOS—8 TO 16 TUBES



ADMIRAL 16 TUBE "TILT-TUNING" CONSOLE

Model 930-16R (see above)—16 tube AC superheterodyne in smart, 42" tilt-tuning console. Tunes American and foreign stations, police, amateur, aviation and ships at sea. Has 15" electro auditorium dynamic speaker, electric "touch-o-matic" tuning, automatic volume control, base compensation, automatic frequency control, continuous type tone control and other features.

ADMIRAL 11 TUBE "TILT-TUNING" CONSOLE

Model 935-11S (see below)—11 tube AC superheterodyne in easy-to-tune "till-tuning" 41" walnut console. Tunes American and foreign stations, police, amateur, aviation and ships at sea. Features include 12" electric dynamic speaker, electric "touch-o-matic" tuning, automatic volume control, automatic frequency control and base intensifier control.



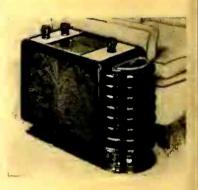
ADMIRAL II TUBE VIOLIN-SHAPED CONSOLE

THE PERSON

Model 940-11S (see above)—11 tube AC superheterodyne in violin-shaped 41" walnut console. Tunes American and foreign stations, police, amateur, aviation and ships at sea. Has 12" electro dynamic speaker, electric "Youch-o-matic" tuning, automatic volume control, automatic frequency control, base intensifier control, etc.

ADMIRAL 8 TUBE "ARMCHAIR" RADIOS

Model 9SS-8K (see below)—8 tube AC superheterodyne in smart walnut "Armchair" cabinet 24" high. Tunes American and foreign stations, police, amateur, aviation and ships at sea. Has 8" electro dynamic speaker, automatic tuning, automatic volume control, base intensifier control, and other features to give outstanding performance



Model 955-8T (see above)—8 tube (including ballast tube) AC-DC superheterodyne "Armchair" radio. Tunes American and foreign stations, police, amateur, aviation and ships at sea. Features include 8" electro dynamic speaker, automatic tuning, automatic volume control, base intensifier control, and many others.

ADMIRAL DU-ETTES — SMART, COMPACT RADIOS THAT "STAND-UP" OR "LAYDOWN"

Model 990-5Z—5 tube AC superheterodyne, ll"x7" bakelite cabinet in ebony and chrome. Tunes American broadcast band. 5" electro dynamic speaker, automatic volume control, flood-lighted dial.

Model 985-5Z—Bakelite cabinet in ivory and gold. Otherwise same as 990-5Z.

Model 990-6Y—6 tube AC-DC superheterodyne, 11"x 7" bakelite cabinet in ebony and chrome. Tunes American and foreign stations, police, aviation and amateur. Has 5" electro dynamic speaker, automatic volume control, flood-lighted dial.

Model 985-6Y—Bakelite cabinet in ivory and gold. Otherwise same as Model 990-6Y.







ADMIRAL 8 TUBE CONSOLES

Model 945-8K (see left)—8 tube AC superheterodyne in 41" walnut console. Tunes American and foreign stations, police, amateur, aviation and ships at sea. Has 12" electro dynamic speaker, automatic tuning automatic volume control, base intensifier control, and many other features

Model 945-8T (see left)—8 tube AC-DC superheterodyne in 41" walnut console. Tunes American and foreign stations, police, amateur, aviation and ships at sea. Features include 12" electro dynamic speaker, automatic tuning, automatic volume control, base intensifier control, etc.

NEW CATALOG NOW READY SEND FOR YOUR FREE COPY TODAY!

ADMIRAL "LAYDOWN" TABLE RADIOS—AC & AC-DC—5 TO 8 TUBES



ADMIRAL 7 TUBE AC

Model 965-7M (see below) -7 tube AC superheterodyne in 11½" high "laydown" cabinet. Tunes American and foreign stations, police, amateur, aviation and ships at sea. Features include 65/8" electro dynamic speaker, visual tuning eye, automatic volume control and base intensifier control.



ADMIRAL 5 TUBE AC

Model 980-5X (see below)-5 tube AC superheterodyne in 9½" high "laydown" cabinet Tunes American and foreign stations, police, aviation and amateur. Has 6" electro dynamic speaker and automatic volume control. Also many other important features to give exceptional performance and splendid tone quality never before at such a low price.

ADMIRAL 8 TUBE AC

Model 960-8K (see above)-8 tube AC superheterodyne in 13" high "laydown" cabinet. Tunes American and foreign stations, police, amateur, aviation and ships at sea. Has 8" electro dynamic speaker, automatic tuning, automatic volume control and base intensifier control.

Model 960-8T-For AC-DC operation. Has same features.



ADMIRAL 6 TUBE AC

Model 975-6W (see above) —6 tube AC superheterodyne in 91/2" high "laydown" cabinet. Tunes American and foreign stations, police amateur, aviation and ships at sea. Has 6" electro dynamic speaker, visual tuning eye, automatic volume control and base intensifier control



ADMIRAL 6 VOLT, 6 TUBE BATTERY CONSOLE & TABLE RADIOS

ADMIRAL 6 TUBE 6 VOLT BATTERY CONSOLE

Model 950-6P (see right)—6 tubes, 6 volt battery radio in 41" console. Tunes American and foreign stations, police, amateur and ships at sea with clarity and richness of tone equal to 110 volt AC radios. Has 8" permanent magnet dynamic speaker, automatic volume control and continuous type tone control



ADMIRAL 6 TUBE 6 VOLT "LAYDOWN" MODEL

Model 965-6P (see ahove)-6 tube, 6 volt hattery radio in 111/2" high "laydown" cabinet. Tunes American and foreign stations, police, amateur, aviation and ships at sea. Has 6" permanent magnet dynamic speaker, automatic volume control and continuous type tone control

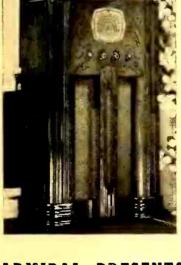
Model 920-6Q (see below)-6 tube 2 volt superheterodyne in 19" table cahinet Tunes American and foreign stations, police, amateur, aviation and ships at sea. Has 6" magnetic speaker, automatic volume control, and continuously variable tone control.



Safety First With Touch-O-Matic

Keep your eyes on the road. Just touch a button and in comes one of your favorite stations clear as a hell As quick and simple as switching on an electric light — that's Touch-O-Matic Tuning. Makes auto driving safer

Smart-looking dash control to match any American car is available for each Admiral Auto Radio. For tuning distant stations when "Touch-O-Matic" Control is not in use



ADMIRAL PRESENTS AMERICA'S SMARTEST AUTO RADIOS

Model 78 (see left)—Powerful 7 tube superheterodyne Special output tube delivers over 5 watts of power without overloading the heavy duty 8" permanent magnet dynamic external speaker. Amazing reformance.

> Model 88 (see left) -8 tube superheterodyne, 8" high fidelity permanent magnet dynamic speaker may be installed in any position helow dash. Smart metal case. Gives tone quality equal to home radios



Model 77 (see above)-7 tube superheterodyne with 6 5/8" heavy duty dynamic speaker self-contained in the set. Gives daytime reception in any locality. Smart, sturdy, compact. Easy to install. Dependahle performance

Model 66 (see helow)-6 tuhe superheterodyne with 6" heavy duty, dynamic speaker self-contained in the set. Has special high fidelity output tube. Most compact 6 tube auto radio built.



3 2 5 WEST HURON

CONTINENTAL RADIO & TELEVISION CORPORATION STREET, CHICAGO,



What a Market for

PHILCO TUBES

Over 200 MILLION tube sockets in over 34 million radios!

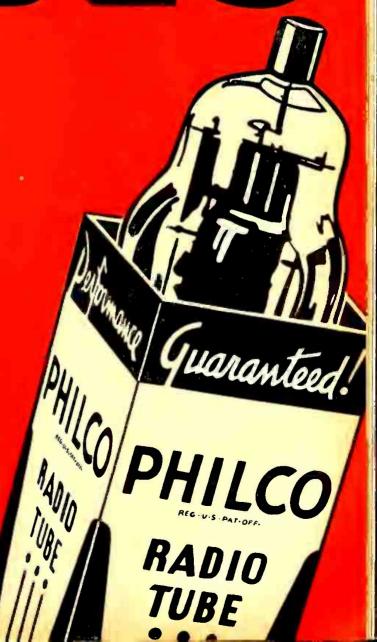
1 of every 4 sets is a Philco and should continue to use Philco Tubes!

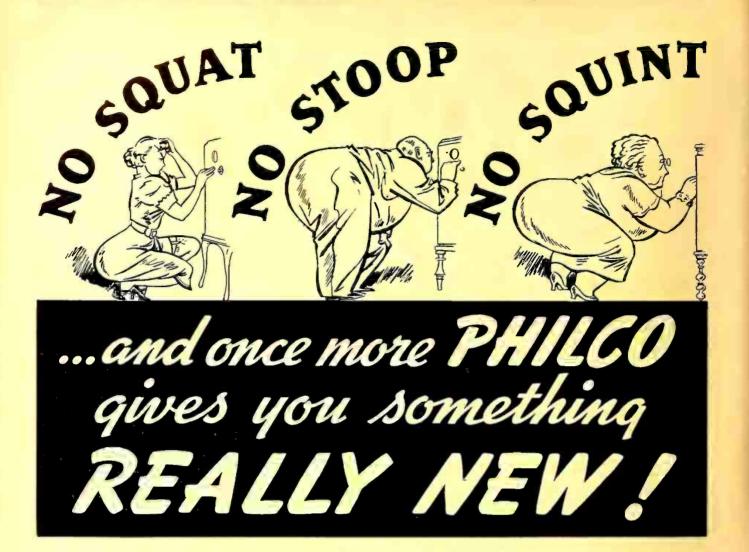
The other 3 of every 4 sets can be improved with Philco Tubes!

The millions of Phileo set owners who already use Phileo Tubes make Phileo the easiest tube in the world to sell!

The millions of other sets also need new tubes, which means a demand you can meet with greater satisfaction to the customer and greater profits to yourself . . . with Philoo Tubes!

Identify yourself as a Philep Tube Dealer . . . use the new sales promotion material now available . . . it's FREE . . . ask your distributor.





PHILCO gave you Automatic Tuning a whole year ago. Philco gave you the Philco Foreign Tuning System . . . with foreign stations named and spread widely apart at the same time.

They were great features then! They are great features today. Everyone in the radio industry realizes that. The rush to include them in 1938 models is all the proof you'd want of that!

And when the 1939 models appear ... how they'll rush to adopt Philco's 1938 design ... "NO SQUAT ... NO STOOP ... NO SQUINT" Tuning!

But Philco dealers won't have to wait! In

the 1938 Double-X Models they're getting the Inclined Control Panel... plus tried and proven Automatic Tuning... plus the Philco Foreign Tuning System! And from the day Philco's tremendous advertising compaign starts to pound home the ridiculous aspect presented by the squatters, stoopers and squinters *... every radio set without the Inclined Control Panel is going to be as antiquated as an automobile with a door in the rear!

NO SQUAT . . . NO STOOP . . . NO SQUINT! That's the Philco theme song for 1938 . . . and it's going to be Number One on the Hit Parade right through the year!

PHILCO RADIO & TELEVISION CORPORATION

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Staff—
DARRELL BARTEE
M. H. NEWTON
B. V. SPINETTA
VINTON K. ULRICH

RADIO
TODAY

ORESTES H. CALDWELL Editor

M. CLEMENTS Publisher

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Vol. III. No. 7

Lee Robinson
Sales Manager

ORDER AMPLE STOCKS; STRIKES MAY INTERRUPT SUPPLY

★ Labor unrest, and the possibility of strikes in the plants of parts suppliers, may interrupt radio-set manufacture this Fall, and hold up shipments at the time of greatest public demand. Already this year the number of strikes reported is several times the total for 1936.

Manufacturing executives are therefore counseling their dealers and distributors to order ample stocks of all needed items. Dealers are also warned not to expect rapid service on wanted lines, since production schedules this year cannot respond on a "fire-alarm" basis.

TERRIFIC TREND

Many a finger itches for the key or the string, as the public goes back to music with the personal angle in it. The idea is fed by radio and its musical reach, and it appears that the new century will positively hum with the sound of instruments-in-hand.

Violent increases have been noted in the demand for pianos, musical instruments, and music. (See chart figures from RCA). Compared with last year, record sales are up 70 per cent.; record players up 75 per cent.; phonographs up 83 per cent.; sheet music up 45 per cent. New trends indicate that many of the new instruments will have an electrical nature and will contain radio-tube amplifiers. Thus the re-vamped industry looks again to radio, this time for sales and service. All this is explained on a tollowing page of this issue.

What might be called a celebrationof-it-all is this month's Annual Convention and Trade Show of the National Association of Music Merchants, July 26 to 29, at the Hotel
New Yorker, New York City. Some
128 musical manufacturers and 7 radio concerns will exhibit their products for an estimated 3,000 guests.

Ansley, Capehart, Electro-Acoustic, Emerson, Presto, RCA, and Sonora will be on hand. W. A. Mennie, the Association's executive secretary, has announced a program to include meetings of the national associations of Musical Merchandise Manufacturers, Band Instrument Manufacturers, Musical Merchandise Wholesalers, Musical Merchandise Retailers, etc. All this along with a series of important speakers and some entertainment extraordinary.

RADIO DATES AHEAD

July 26-29—Convention and Trade Show of the National Association of Music Merchants, Hotel New Yorker, New York City.

Aug. 4-5—Stewart-Warner distributors' convention, Edgewater Beach Hotel, Chicago.

Sept. 24-Oct. 2—National Furniture Week.

Oct. 1-3—New York Radio Parts Trade Show, Commerce Hall, New York City.

OVER 2,000,000 AUTO-RADIOS: "RIDE 'EM 'N TRY 'EM"

* Auto radio has been leaping ahead during recent Spring months, and estimates for 1937 sales now ruu 2 to 2¼ million auto-radio sets—compared with 1,700,000 sets last year.

From 25 to 32 per cent of the cars being shipped are now equipped with radio by the car distributors. Sometimes the car-dealer who has received a car with a set, has a customer who is all against listening as he drives. This is the signal for tactics known as "Ride 'em and Try 'em."

"Lister, mister," says the car-dealer, anxious to get the additional price of the car radio, "you just take this car as it is and try it a couple of weeks, with the radio in it. Then if you don't like it, I'll take the radio out. No charge."

Out of 100 "ride 'em and try-em" customers—95 buy 'em!

HOW THE MUSIC TIDE IS RISING The Piano Business 1935 1933 1934 1936 34,305 90,358 47,193 65,086 \$8,500,000 \$13,000,000 \$18,000,000 \$23,000,000 BAND INSTRUMENTS 1934 1935 1936 1933 \$2,120,000 \$3,380,000 \$4,040,000 \$7,000,000 THE POPULAR SONG-HITS 1935 1936 1933 136% 100% 125% 210% 345% 1937



Al Wells of Wells-Gardner, and Henry Forster of Radio Speakers, Inc., at the RMA golf meet. In background Clarence Manning, Montgomery-Ward, and Jim Quam, Quam-Nichols.

NEW RMA OFFICERS

* With its annual election of officers, headed by Leslie F. Muter of Chicago as president for his fourth term, the Radio Manufacturers Association added a number of new directors, including Paul V. Galvin, P. S. Billings, Philip C. Lenz, Ernest Alschuler and Jerome J. Kahn of Chicago. Arthur T. Murray of Springfield, Mass., James M. Skinner of Philadelphia, David T. Schultz, Ar-



Art Haugh, sales manager Sparks-Withington Co., who conducted Sparton's meetings at the Waldorf, New York, and in Jackson, Mich., in June.

thur Moss and S. I. Cole of New York, H. E. Osmun of Milwaukee, and Ray F. Sparrow of Indianapolis. Fred Williams was re-elected treasurer. Bond Geddes of Washington was re-elected executive vice president.

TRADE SHOW ATTENDED BY 6500

* The largest attendance at a radio Trade Show, since the last memorable 1932 RMA Convention and Trade Show in Chicago, was recorded at the Radio Parts Manufacturers National Trade Show, during its four-day run at the Stevens Hotel, Chicago, June 10-13. Business transacted and in prospect was reported by exhibitors far in excess of expectations.

A total of 6,500 individual registrations was recorded by the show staff, under the direction of Managing Director Kenneth A. Hathaway. The foreign registrations included radio men from Argentine; Austria; Belgium; Brazil; Cuba; Czechoslovakia; England; Mexico; Scotland, and the Canadian provinces.

CONVERSATION PIECE, FARM STYLE

★ Beheld among the new farm gadgets is a trim little device which connects the apron with the overalls. That is, it's a house-to-barn intercommunicator and radio combined, providing through the house receiver both reception and communication for the two points. It's the slickest dinner-bell yet, among other things.

What with all the feeding, milking, repairing and shop work going on at the barn, the farmer welcomes either a wife's voice or some music from the house. Sentinel, with this "Rad-O-Phone," has made the hook-up, using a regular radio set, a switch, and a "barn speaker."

NEW IRSM OFFICERS

* The Institute of Radio Service Men at its annual meeting at Chicago, June 12, elected as its national officers: J. M. Rathsburg of Detroit, Mich., President; F. L. Horman of Brooklyn, N. Y., vice-president; and Joe Marty, Jr., of Wilmette, Ill., secretary-treasurer. All of the newly elected officers are practicing Radioneers.

President Rathsburg, in his inauguration address, stated his whole-hearted belief in the principles and purposes of the Institute of Radio Service Men. "The Institute has long pledged itself to full cooperation



Ira J. Owen, president Utah Radio Products Company, Chicago, caught by Jack Price's candid camera during the RMA golf tournament.

with the other branches of the industry," said Mr. Rathsburg. "We feel that as radio servicemen that we are a vital and necessary part of the radio business—the connecting link between the producer and the consumer."

"Under the new plan," commented Secretary Marty, himself a service man, "the affairs of the Institute are guided entirely by men who are actively engaged in the service business. Every plan that is developed will be weighed with respect to its value to service men."



W. Keene Jackson, sales manager for International Radio Corp., Ann Arbor, Mich., who heads up Kadette's greatly expanded sales organization.



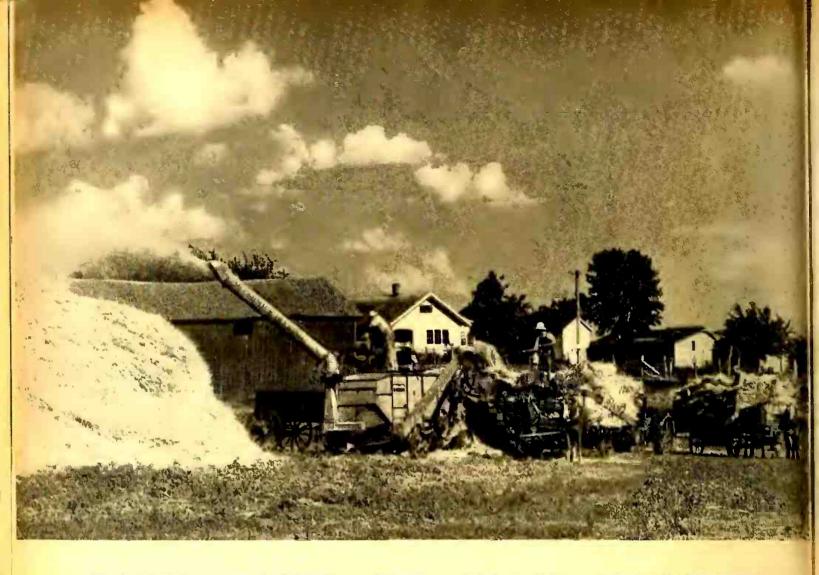
Philco's "No Squat—No Stoop—No Squint" campaign launched at White Sulphur Springs distributor meetings. Left, J. M. Skinner. Center, President Larry Gubb with Prize-winners Peter Kain and A. C. Nodine. Right, A. K. Sutton, Charlotte, N. C., with Sayre Ramsdell, Philco v.p.



GE radio distributors look on a front-table array comprising (beginning left) Messrs. Poorman, May (leaning over), Hadlock, Karr, Anderson, C. M. Wilson, Vogel, C. E. Wilson, Cordiner, Zimmerman, Quinn, Baker, Crossland and Wandres, who launched "Touch Tuning" tour.

A corner of Sentinel's distributors' gathering, Chicago, and (below) E. (E. A.) Alschuler, President, and Sales Manager George Russell. At Emerson convention, New York, Messrs. Horton, Hallenbach, Breth, Seemuth, Clark, Gross, Lou Abrams, Max Abrams, Karlsruhe. Below Ben Abrams, president of Emerson, with I. Witz, Philadelphia district manager (left), greets R. Goldman and Theo. Emler.





RADIO TAKES ITS FARM HARVEST

Dealers angle for agriculture's 4,000,000 homes without radio receivers

* BRONZED FACE of the farmer lights up these days at the mention of new farm radio equipment. He now receives the radio dealer against a rich backdrop of fine crops, better prices for his products, and a modern appetite for farm broadcast services.

Radio Today's special reporter has had words with the country gentlemen, their radio dealers, and their battery-minded distributors; this report is written in the full sunlight of field activities as noted between New York and Kansas. That reporter says right off that it was great sport to watch the destiny of new farm radio lines shaped by the season's "take" from the good earth.

It could be reported that Iowa dealer J. B. Dickerson plans a special farm trailer-coach for demonstration eampaigns among farmers; that

Nebraska dealer George Roth has had OK results by combining radio with other gadgets; that Missouri dealer Ralph Eckles sponsors a feature 6-month payment plan among rural folk; that several Kansas dealers spot their radio promotions just as the farmers are paid their cash benefits in the national soil conservation program. These details will be dragged out after the nation-wide trends have been explained.

Worthy market

Dealers who are getting the farm profits are mainly the ones who leave their stores and march out after the business. They say that the average farmhouse is under-demonstrated as far as major appliances are concerned, and that a lively show-off of new radio lines in rural homes is both an event and an implied compliment to the

farmer. Except in rush periods during harvest time, the new theory is that he will stop his work to listen any time, if the salesman has built up his merchandise as "something brand new for the farm that you haven't seen."

Some dealers are using college men, vacationing at farm homes for the season, as outside salesmen. As a rule, these chaps have a wide acquaintance in their communities, and their statements are likely to be credited by prospects. Their procedure is pretty well established as alert and clean cut.

If the dealer watches local affairs with a sharp eye, he apparently can get whole groups of farmers interested in a demonstration by displaying a set at local farms just at noontime. A great deal of local listening is done at this time of day, during or just

after the noon-day meal. When harvest is in progress, several farmers often work together, eat jointly, and listen in groups.

Harvest technique

Radio men realize that the tempo of farm affairs is at its fastest at this time of the season; things are confused and by no means normal. Only the most discreet attempts are made to close sales at the time. However, it is important to make radio impressions because with the grain rolling in, the farmer is privately ear-marking his funds for one purchase or another.

Another "outside angle" is the demonstration of new equipment at farm homes where neighbors have been invited for an evening. It has been noted that housewives themselves will dodge responsibility for such gatherings, but are delighted when complete arrangements are made informally by local radio representatives.

Field salesmen are also using lists of "leading farmers," made up at the store. The prospect can be shown these, with his name spotted, as a minor device to get him in a good mood.

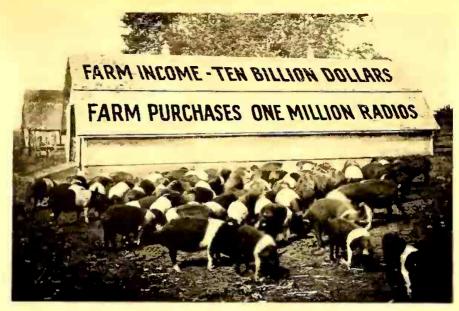
Party line

In some quarters, dealers have worked up valuable contacts with the farmer, via the telephone. Briefly, calls are made to farm houses in these general cases: (1) After big rains, when farmers will be at leisure until the fields are dry again; (2) when new farm radio equipment has arrived at the store; (3) on holidays observed locally; (4) when radio prices have been changed importantly; and (5) when a farm broadcast feature appears, or is renewed on the air.

For an inexpensive but effective advertising stunt, dealers can also use the phone by buying "line rings." You go to the central phone office, have the operator ring unusual rings, which everyone on a line recognizes and answers, and make your announcement in several dozen ears at a time.

Receivers for 1937-38 offer the farmer a command of short wave, and in many states dealers are noticing agricultural interest in these broadcasts. It was first thought that the farmer might be consistently cool to foreign material.

There's quite a demand among ruralists for radio as a means of keeping the young folks content on the farm. Actually, dealers are selling



One out of every two rural families still waits to be sold its first receiver.

many sets by outlining entertainment features that will do this trick. Often, it means more than one set per home, and is becoming an angle of increasing importance.

Old red barn

More and more receivers are being sold for barns, poultry houses, workshops and for tractors. Such installations have almost dropped the novelty aspect, and are found to be legtimate and interesting additions to the modern rural scene. A farmer appears to be open to any radio suggestion that will mean appropriate entertainment at a spot where he spends a consider-

able part of his time. He is a better bet for second and third sets than his city neighbor, because it requires more separate buildings to make up his home.

Throughout the farm story runs the theory that the agriculturalist is accustomed to mixed outlets; that is, he is used to buying many different types of merchandise at the same store. It's his "general store" background. For this reason, dealers find it profitable to contact all those who regularly contact the farmer — implement houses, produce buyers, grain elevators, hardware stores, etc. These outlets may be used as agents or as likely spots for radio displays.



Weather, crop and commodity price reports are welcome in the barn. Here's Farmer G. W. Sarano, Lexington, Mass., tuned to WBZ and WBZA for the latest.

BUYER IN OVERALLS

Radio goes after its 5,500,000 farm prospects

INTO THE FARMER'S BACKYARD

★ That a dealer may profitably "take his store to the user," is being established by Guy M. Hopper, of the Crosley Distributing Corp., Cincinnati.

"The dealer might not have such elaborate trailer equipment," declares Mr. Hopper, "but he can start out in his own community and take his store right into the farmer's backyard. People see the trailer travelling over the streets and highways and it always draws attention when parked in front of the dealer's store.

"I know of an actual experience in a town of about 100 people in Indiana where the dealer bought an old school bus and equipped it with his proucts, for travelling among farmers."

Results of this stunt are described by Mr. Hopper as exceptional in point of actual sales, as well as in general publicity value.

LAMPS FOR FARMS

* Among alert farm salesmen, reading or table lamps are being sold along with new farm radio equipment. It has been found that when there is extra power involved, prospects are delighted with having an attractive electric lamp demonstrated in their homes. Often, it is the plus item which clinches the sale.

Introduction of the lamp often establishes a definite appetite in farm homes for other electric appliances. It's a constant and effective reminder of the great convenience of electric devices in general.

Dealers can arrange to make the lamp appear to be a gift along with other purchases; prices can be combined to make the stunt more inviting.

PROSPECTS TAKEN A RIDE

★ Convincing method of handling prospective radio equipment buyers is suggested by sales executives at Parris-Dunn Corp. Initial aim is to sell wind-charging equipment and the stunt takes place in a demonstrator-car with a charger installed on the

front. Special ammeter is hooked to the dash board.

The dealer picks a time when there is little wind and takes the prospect for a ride. As various speeds are noted on the car speedometer, they are interpreted in terms of wind velocity, and the demonstration will reveal definitely at what velocity the charger begins to charge, what it will produce in average winds, and when the brakes begin to apply.

Salesmen must know the average wind velocity in the area, in order to clinch the argument. Official wind figures will at last mean something to the prospect as he watches the speed-ometer and the ammeter on the wind charger.

VALUE OF FARM OUTLOOK

* At the Yehle Music Co., Maryville, Mo., radio manager William Regan has found that the choice time to sell a farmer is the minute he first knows definitely that he will have some extra profit from his products. Whether it's a mid-summer sale of grain, or a mid-winter sale of livestock, the ruralist knows beforehand how he'll come out. That's the time to spring radio values, according to the Missouri merchant.

Basic theory is that the farm buying mood varies with fluctuations in whather and price conditions. A good rain, a sharp rise in the price of wheat, a favorable period of sunshine, are samples of what causes local prespending. The farmer is not one to wait for things to be "in the bag" before he decides what to buy.

WHAT THE FARMER WANTS

(From a report by World Broadcasting System on a survey among 450 farmers and 225 dealers in 9 mid-Western states)

Favorite listening time . 6-9:30 p. m. Morning listening preference . 6:30-7
Favorite programs . News reports and music.

Musical preference Barn dance

GRASSHOPPER ADVICE

Stretches of farm area are currently beset with hordes of grasshoppers. Many local radio stations are broadcasting a series of bulletins on how to control the insect, with official advice exactly interpreted in terms of local conditions. Dealers are using this as an example of why the farmer finds modern and dependable listening so genuinely helpful.

Still on the "emergency" theme (grasshoppers are an emergency!), it has been found that farmers are greatly interested in stories about how radio came to the rescue when homes were isolated by snowstorms or floods. In more cases than might be supposed, modern farm homes are cut off from all communication by violent and unusual weather disturbances.

INSURE CUSTOMER SATISFACTION

* Importance of thorough checkup on set in shop and instruction of customer in his home as to how to operate receiver is theme of recent Phileo bulletin. It points out that these factors are important in keeping sets sold; in part the suggestions are as follows:

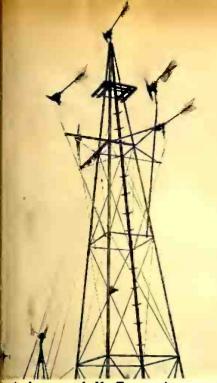
The set should be thoroughly checked in the store before delivery to the customer. This means that the complete radio should be taken out of the shipping case, connected to an all-wave antenna and played on each band. If the dial calibration is slightly off, as happens occasionally, the set should be readjusted by the serviceman.

If the set has a tuning indicator the operation of the indicator should be noted carefully. If the shadow is too sluggish, or if it is too free, or ragged, the condition should be corrected.

The cabinet should be inspected carefully and then polished with a good furniture polish.

The person who makes the installation of a radio set, and particularly one of the larger models, can well afford to spend 15 or 20 minutes giving the customer personal instructions on the operation. Many dissatisfied customers have resulted simply because the customer did not understand the various controls. A few minutes of instruction will often save a sale.

Many dealers have a serviceman call back two or three days after the set has been installed just to make sure that everything is operating as it should and that the customer fully understands the operation of the set.



A battery of Hy-Tower chargers Clarinda, Iowa, factory.



Leaders behind farm programs. Secretary of Agriculture Wallace; Frank Mullen, National Farm Hour founder (now RCA exec.); and Dr. Christensen, U. of Wisconsin.

This Wincharger brings elec-tricity from Iowa breezes.

POWER FOR FARM RADIOS

Radio Today, July, 1937

The new gasoline motors are so light and compact anyone can handle them.



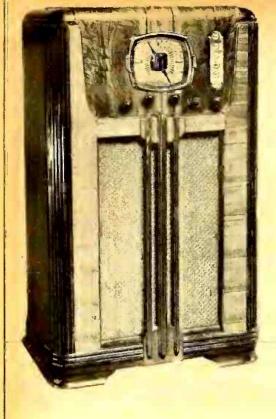
This set works on 6-v. battery, then switches to 110-v. when "high-line" comes.

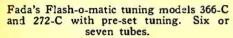




Winners of the National 4H Clubs contest try out a 110-volt set.







MORE 1938 SETS

Howard's 12-tube console with cathode ray tuning, bass boost, and beam power output—\$89.95.



Arvin model 627-B—6-volt farm radio with all-wave tuning and 6 tubes listing at a price of \$69.95.

* Continuing the announcements of new lines from last month, Radio Today pictures on these pages additional models available as we go to press.

More automatic tuning sets are being

More automatic tuning sets are being announced—this month there is Emerson, Fada, Erla-Sentinel, Crosley, Grebe, Philco, Trav-Ler. Total is over 20 and there are several lines to be announced.

Philco's 38-3XX with inclined sounding board, automatic tuning, nine tubes—\$129.50.



Stewart-Warner's farm console features 6 tubes, 3-band tuning, and 8-inch permanent magnet speaker.

The high audio output trend of a year ago has been dropped by some of the leading manufacturers, emphasis being placed on various acoustical devices instead. Loudspeakers are getting larger—with a few of the manufacturers now featuring fifteen-inch units in their big console models.

(Continued on page 22)

Erla-Sentinel 76A6—11-tubes with AFC and flash tuning, all-wave tuning—list \$99.95.









G-E model F-81 with all-wave tuning, 8 tubes and louvre dial.

Zenith 2-volt model 4F227-4 tubes, tunes BC band \$24.95.



Fada 1216T, 212T, 16 and 12 tubes respectively for AC-DC.



Pilot model TG528 12 tubes tuning to ultra-short-wave.



Fada models 351K, 352K, 353K, 361K, 363K—5 and 6 tubes, AC and AC-DC.



Kadette K739 with European style dial listing stations—AC, 7 tubes \$39.95.



Detrola's 117-A lists stations by net-work affiliation—has 2-band tuning.

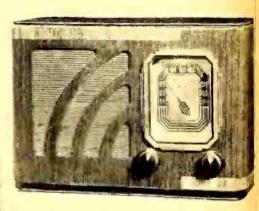


Hetro 18810—8 tubes AC and all-wave. Emerson's R-167—5 tubes, 2 bands—\$29.95.



Howard model 368 with 8 tubes for \$49.95.

Motorola 6-volt, 110 AC portable set—\$49.95.



Philco 38-12C, AC, 5 tubes, list \$22.50.
Sentinel 72AT—5 tubes, 2 bands, \$19.99.













Radio changes life on the farm

The farm of yesterday and the farm of today are vastly different. And radio is the reason. RCA is proud to have pioneered farm radio—proud to have taken so large a part in every phase of its development—from the standpoint of broadcasting as well as reception.

Of all forms of entertainment, radio alone puts the farm family on a par with families in big cities. Radio is the farmer's chief source of recreation and his news ticker. Besides entertainment, radio helps the farmer in business—bringing him a wide variety of news and information about weather, crops and livestock. It gives him latest price quotations, aids in the preservation of his property against the ravages of the elements. In short, radio has made the farmer's life a better life.

National Farm & Home Hour ties knot of friendship between farmer and RCA

For the last decade, NBC (an RCA service), the U.S. Department of Agriculture and the national farm organizations have joined forces to bring farmers throughout the land the most outstanding agricultural program on the air. The National Farm & Home Hour, which is broadcast over 91 stations from coast to coast on the NBC Blue Network during the noon hour, every day except Sunday, has become the farmer's tuning habit. This program is adapted to the farmer's special needs and presents a wellbalanced combination of national farm news, educational talks and entertainment features.

The National Farm & Home Hour is one of the ways in which RCA serves the farmer—a service that has

created a bond of friendship between farmers and RCA.

RCA's interest in 4-H Clubs gives farm youth brighter future

The U.S. Government in 1899 originated what is now known as the Boys and Girls National 4-H Clubs. Today more than one million farm juniors belong to these clubs. Under the sponsorship of the U.S. Department of Agriculture and the State extension services, RCA gives material aid to agriculture in the constant betterment of these clubs, sponsoring the Social Progress Program, a contest that promotes the social, recreational and economic betterment of rural life. Club members are using radio and recorded music in this contest thereby extending the usefulness and the potentialities of the radio industry. The farm family of America knows and likes RCA and its broadcasting service, the NBC.

RADIO CORPORATION OF

Sign to Farmers

Thousands of farmers prove friendship by buying RCA Victor 1938 Farm Sets with Sensational Distance Booster

RCA Victor 1938 farm radios are the talk of every farm home! Featuring the sensational new Distance Booster, which gets more stations with finer tone and greater volume, these new battery sets are creating new sales records in dealers' stores all over the land.

They've got everything! Power rivals that of big electrically operated city radios. Cabinets are big and beautiful. Prices are low—and operating costs are at a minimum, with sets operated by either Wincharger or gasoline motor generator.

These sets are real values—values every dealer can cash in on. Push them with all you've got—and they'll bring you plenty in return! Because there are 6,812,350 farms in this country—and farmers this year will have an estimated income of 10 billion dollars. That means that they are likely prospects for a radio set. A radio is the one thing that really completes a farm home, and when you feature RCA Victor sets, you pave the way for a profitable visit with every farmer in your community!

Distance Booster brings more stations with Finer Tone . . . Greater Volume!





(AT LEFT) RCA Victor Distance Booster Model 85BK, a stunning, 5-tube, 3-band superheterodyne, offering world-wide entertainment with tremendous power and life-like tone. New, big "Save-the-Battery" Dial. "B" battery plug connection, phonograph connection, 2-volt operation or 6-volt operation with Pak-O-Powr and 6-volt storage battery.

(AT RIGHT) RCA Victor Distance Booster Model 85BT, featuring 5 RCA tubes, "Save-the-Battery" Dial, aircraft and amateur calls, foreign reception, standard broadcast, police bands, and a host of extra-value features.

Other RCA Victor farm radios are Console Model 86BK and Table Models 84BT and 86BT, which offer many outstanding performance features—features that will help you make easy sales.

In addition, you can make handsome profits through sales of RCA Victor electrically operated radios to power line farm homes. There are 21 models, ranging from \$20 up, which offer a total of 55 splendid features to help you sell. Foremost of these is the first truly automatic tuning—RCA Victor Electric Tuning. Others include new Overseas Dial, which makes short wave tuning 50 times easier than ever before, Armchair Control, Sonic-Arc Magic Voice, Beauty-Tone Cabinets, Magic Brain, Magic Eye, RCA Metal Tubes.

RCA Victor

RCA Manufacturing Company, Inc., Camden, N. J.

AMERICA · Radio City, New York

SPECIFICATIONS OF FARM RADIO ACCESSORIES

AC power plants with gas engine drive

Model, No.	Voltage	Watts	Battery Charger	Price
Janette Mfg.	Co., 556 W.	Monroe St	., Chicago, Ill.	
CA16	110	250	No	\$132,00
C13	110	300	No	187.00
ČE14	110	500	No	217.80
CE12	110		No	291.50
Electric star	ting models	at increase	ed prices.	
Kato Engine	ering Co., 7	27 S. Fron	t St., Mankato	, Minn.
JRA3	110	350	6-volt	87.50
JR35	110	300	6-volt	98.00
JA12	110	300	12-volt	89.50
01112	110	000		
D. W. Oran	e Sous. 43 I	Royalston A	ve., Minneapol	is, Minn.
31	110	350		110.00
5L	110	500		165.00
71.	110	750		220,00
Electric star				
Pionecr Gen-	e-motor Cor	rp., 466 W.	Superior St., C	Chicago, Ill
IH6	110	300	6-volt	98.50
IH12	110	300	12-volt	104.95
IH32	110	300	32-volt	109.50

Gas engine chargers

Model No. Voltage	Watts	List Price
Briggs & Stratton Corp., M	lilwaukee, Wis. "	Power-Charger."
100 6	100	\$37.50
200 6	200	68.50
300 12	200	71.50
0 11 11 11 11 11	I Toffenson	Daturit Mich
Continental Motor Corp., 1 "Tiny Tim."	12801 E. Jenerson	, Detroit, Mich.,
finy fim.	212	55.00
12	212	57.50
12	212	31.00
Kato Engineering Co., 72 "Katolite."	7 S. Front St.,	Mankato, Minn.,
JD6 6	180	49.95
JDS12 12	250	59.95
Electric starting \$5 additio	nal.	00.00
D. W. Onan & Sons, 43 Roy	coleton Asso. Minn	onnolia Minn
BC6 6	175	57.50
BC12 12	175	59.00
BC12 12	113	55.00
Pioneer Gen-e-Motor Corp.	466 W. Superior	St., Chicago, Itl.
RS6 6	175	54.50
BS12 12	175	57.95
Wedge Mfg. Co., 2334 S. Mi-		
60	200	50.25
60M 6	200	53.25
120 12	250	51.50
120M 12	250	58.50

Batteries (primary)

Model No.	Type	Voltage	Price
Bond Electric Corp., Nev	W Haven, Con	n.	
A, B, and C types.			
Burgess Battery Co., 11	1 W Monwoo	St Chicago II	1
A. B. and C types.	1 W. Monioe	St., Chicago, I	11.
National Carbon Co., Inc			
Super-layerbilt	Med.	45	1.90
Super-layerbilt	Large	45	2.45
Layerbilt 485	Med.	4.5	1.69
Layerbilt 486	Large	45	2.20
Round cell 772	Med.	45	1.25
Round cell 770	Large	45	1.75
	"C"	221/2	.85
766, 779 781	Med.	221/2	1.50
X124	Dry A	4 ½ 3 3	8.70
X125	Dry A	3	3.95
Combination B & C	D1 3 22	135 & -9	8.95
A600	Air Cell	2	6.70
		-	0
Ray-o-Vac Co., Madison		1.1	
Super heavy duty, hea	vy duty, "B"	DIOCKS.	
Standard size "B" blo			
90 and 135 volt H.D. a		D	
3-volt dry "A" blocks		4 HD	
3-voit dry A blocks	-medium an	ų 11.D,	

Storage batteries

Electric Storage Battery Co., 19th & Allegheny Ave., Philadel-phia, Pa., "Exide."

Globe-Union, Inc., 900 E. Keefe Ave., Milwaukee, Wis. 2-volt units with 100 to 225 ampere-hours. 6-volt units with 100 to 300 ampere-hours.

Jumbo Battery Mfrs., Ellsworth, Iowa, Units with capacities up to 881 ampere-hours.

Monark Battery Co., 4556 W. Grand Ave., Chicago, Ill.

Universal Buttery Co., 3410 S. LaSalle St., Chicago, Ill. Willard Storage Battery Co., St. Clair Ave., & E. 131st St., Cleveland, Ohio. 2-volt units with 111 to 450 ampere-hours. 6-volt units with 102 to 300 ampere-hours.

Wind generators for battery charging

Model No.	Volts	Watts	List Price
Breez-Electric	Corp.,	440 N. Oakley Blvd., Chic	
Super	6	200 1250	\$24.95
Super Twin	32		
Parris-Dunn C	orp. C	., 727 S. Front St., Manka	to, Minn.
Lo-tower	6	20 amps	24.50
Hy-tower	6	20 amps	29.95
	rp., Si	oux City, Iowa.	05.00
37	32	650	25.00 84.95
Hy-way		12	





THE KEY TO THE GREAT FARM RADIO MARKET

THE GENUINE

6 VOLT DE LUXE

Your Most Dependable Least Expensive Source of

ELECTRIC CURRENT FOR FARM RADIOS

YOUR farm customers want dependable "big-city" radio reception. You can give it to them with That's why Wincharger is any good 6-volt farm radio -powered by Wincharger!

They want freedom from "B" batteries and expensive recharging. You can give it to them—with Wincharger!

They want low-cost operation. You can make their power operating cost less than 50c a year—with

That's why Wincharger is the KEY TO THE FARM MARKET the greatest remaining radio market. Records show that 79% of all city homes now have good radio sets, but 66% of all farm homes need new radios! There are 4,602,000 farm homes that must depend on battery operated radios! Wincharger provides the cheapest, most dependable, most satisfactory They want years of dependable, answer to the farm radio power proved, trouble-free performance. problem.

\$2.50 PROFIT FOR YOU in Every Wincharger You Sell!

WINCHARGER not only opens the great farm radio market for you—but there's a \$2.50 cash profit in every Wincharger you sell. It makes no difference whether the customer buys in your store, or orders direct from the factory on a coupon bearing your name. Be sure your name appears on the Wincharger Co-operative Purchase Coupon in every radio you sell!

Only Wincharger offers you, the dealer, such assurance of customer-satisfaction and trouble-free performance, year after year!

Tie your selling program to Wincharger! It's known for dependability wherever farmers read farm papers. It's being advertised this season to millions of farmers all over the country—to thousands right

Purchase Coupon in every radio you sell!

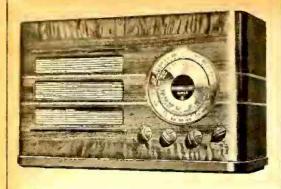
Only Wincharger can offer your customers a record of proved satisfaction for more than 500,000 delighted listeners all over largest makers of wind-driven generating the world! Only Wincharger has been tested and proved by the engineers of every or Money Back."

WINCHARGER CORPORATION SIOUX CITY, IOWA

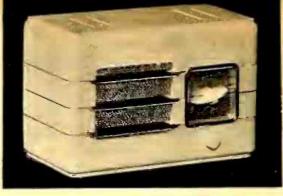
World's Largest Makers of Wind-Driven Generating Equipment



Wincharger Corporation, Dept. R. T. 7-37 Sioux City, Iowa
Please send your new manual,
"MORE FARM RADIO SALES"
Name
Address
7 Laca Coo
Chan
City State State
Make of radio handled.



Crosley model 817—all-wave, 8 octal-base tubes, 5-watt push-pull output, \$39.95.



Mission Bell's model 387 with 5 tubes, stations marked on dial—list \$24.95.



Westinghouse WR-228 featuring all-wave, 7 tubes with 6-watt output and 8-inch speaker.

SHOW RETAIL BUYERS TREND OF PRICES

* Industry should study and develop better methods of educating the public as to what makes prices what they are, declares Hugh H. Eby, Philadelphia, Pa.

Perhaps some day we shall see, in retail stores, bulletin boards showing to all shoppers the trend of prices of basic materials—things they never buy in the raw, but which enter into the finished merchandise on display.

Convince people in the right way that prices are going to rise, and buying is stimulated. This works out broadly and also for the products of specific industries. The consumer readily pays an advanced price when he believes the increase necessary and that further advances will follow.

The time to make news of price advances is when they are still "in the making," however—not at the moment when the would-be cousumer is in the

store with his mind all made up to buy at the price of yesterday, warns Mr. Eby in conclusion.

The more publicity is given to rising basic costs, the better for every manufacturer right down the line.

THE STRIKE POLITE

* Average pay in U. S. radio factories is 56 cents an hour. In one large plant where the average pay was 70 cents an hour, the workers recently struck for 10 per cent increase, vacation with pay, and "guaranteed Christmas bonuses." The strike was conducted without disorder or violence of any kind, and with good nature on both sides.

After being out a number of weeks, the strikers accepted 5 cents an hour increase, without other perquisites. It was noticeable that after the strike was over, the employes came back in great good humor, and went hard at work, immediately equalling their rate of production before the strike was called.

MOST COMPLETE SPECIFICATIONS OF RADIO SETS

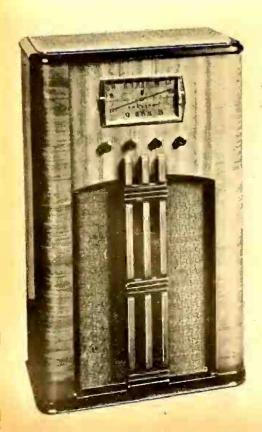
★ Featured in this month's Radio Today on pages 34. 38, 39 and on pages 1 to 7 of Part II for June are the specifications of nearly 900 power line operated receivers. Also approximately 200 battery models are listed on pages 24, 62, and 64 of this issue.

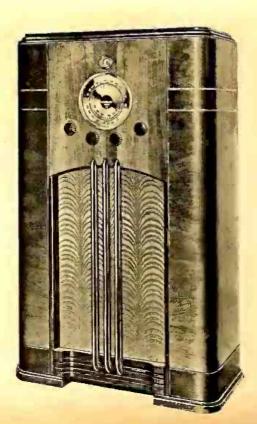
These specifications, the most complete ever published, give 22 different facts for each model of radio. These features, often omitted in manufacturers' descriptive literature, give the radioman a basis of comparison for the various sets and a background on which to evaluate fully each model.

RADIO TODAY'S specifications are the only ones that list all the sales features of each model, set by set. Use these listings to point out the various features when selling sets, and use them to get data on competitive lines for your own information.

Emerson model AT-181—2-band coverage, telephone-dal tuning, 6 tubes—\$69.95

Kadette K1149, an 11-tube AC console with dual band reception—priced at \$49.95. Crosley's model 1117 console with 7 tubes and 3 wavebands, AC operation—\$69.95







STAMPEDING THE INDUSTRY! KADETTE

STUPENDOUS CONSOLE PROMOTION VALUE!

11-TUBE

AC SUPERHETERODYNE CONSOLE

\$49⁹⁵

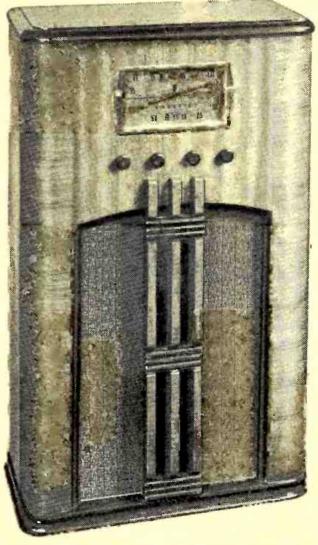
KADETTE is the COMPLETE line— Compacts, Table, Chairside and Console models in gorgeous woods and colorful plastics.

Supported by powerful promotion and advertising, Kadette is the line that can't be ignored.

The dealer proposition is as "hot" as the line itself. Get in touch with your distributor—or phone or wire us TODAY!

KADETTE DIVISION
INTERNATIONAL RADIO CORPORATION

542 Williams Street • Ann Arbor, Michigan



Madel K-1149... Beautiful grained walnut cabinet — high piana-finish — illuminated, crystal-cavered dial. 8" oversize speaker. High sensitivity and selectivity — full autamatic valume cantral. Cavers broadcast, palice and Eurapean ranges.

ADETTE THE WORLD'S
BEST VALUE

SPECIFICATIONS OF 1937-38 FARM RADIO SETS

A comparison of the features over 190 different farm models compiled by Radio Today

_											Batte	гу Dга	in	_	Diaf				_	_
Model No.	List price	Cab- inet style	Wave- bands	No. of tubes	amp-	Watts audio power	size	Tone	Power Supply	Power pack amps	"A"	"B"	"B"	Size	Ratio	Illum-	AVC	Acous- tical devices	I.F. peak	Fea- tures
110.	price	style	Danus	tubes	Inter	power	type	1101	Зирріу	ашрз	amps	VOILS	HILLS	Size	Katio	inated	AVC	devices		
Air King 730, 731		FT	c., 15 Hooper B	5-O	No No	N. Y.—".	Air-King 5½PM		2V-6V		.42	135	18	3½x5	8:1	Yes	Yes	No	456	1
F. A. D. 610 614 611 615	Andrea, 4 NS NS NS NS NS	VT CON VT CON CON	Ave., Wood B.S B.S B.S B.S	6-0 6-0 7-0 7-0	Yes Yes Yes Yes Yes	.—"And 1½ 1½ 2 2	8-PM 8-PM 8-PM 8-PM 8-PM	Yes Yes Yes Yes	6V 6V 32V 32V	3 3 1.1 1.1		• • • • • • • • • • • • • • • • • • • •		5 5 5 5	60:12:1 60:12:1 60:12:1 60:12:1	Yes Yes	Yes Yes Yes Yes	No No No No	470 470 470 470	2 2
Belmont 415-19 523-28 415-42 523-42 804-41	Radio C NS NS NS NS NS NS	T T CON CON CON	57 Fullerton B B B B B B.P.S	Ave., Ch 4-0 5-G 4-0 5-G 8-OG	No No No No No No Yes	.7 .2 .7 .2 .7 .2	6-PM 6-Mag 8-PM 8-Mag 8-Mag 8-PM	Yes No Yes No Yes No Yes	6V 2V-DB 6V 2V-DB 6V	1.6 1.6 1.6 2.1	ece'' .26	90	15 15	NS NS NS NS	11:1 11:1 11:1 11:1 11:1	No No No No Yes	Yes Yes Yes Yes Yes	No No No No	465 465 465 465 465	2 2 3
Capitol 1 C101 C110	Radio Co. \$ 46.70 51.00	VT	Dhio St., Chio B,P,S B,P,S	eago, Ill— 6-G 7-G	"Capli No No	tol'' 2' 2	6-PM 6-PM	No Yes	6V 6V	1.8 1.8	::::			4.	10:1 16:1	Yes Yes	Yes Yes	No No	456 456	2 2
Clarion 400 401 407 500 506	Corp., 888 \$24.95 29.95 59.95 39.95 59.95	Pure O	il Bldg., Chic B B B.P.S B.S NS	5-G* 5-G* 5-G* 7-G* 5-GO NS	-"Clari NS NS NS NS NS	NS NS NS NS NS	NS NS NS NS	NS NS NS NS	2V-DB 2V-DB 2V-DB 6V 6V & 110AC		NS NS NS NS	NS NS NS NS	NS NS NS NS	NS NS NS NS NS	NS NS NS NS	NS NS NS NS	NS NS NS NS	NS NS NS NS	456 456 455 456 456	
Climax I 2 volter 6 volter	Radio & T \$ 37.50 44.95	FT	n Co., 511 S. B.S B.S	Sangamo 5-G 5-GO	on St., C No No	1.9 1.5	111.—"C11 S-PM 5-PM	max'' No No	2V-DB 6V	2.8	.56	135	25	5 5	6:1 6:1	Yes Yes	Yes Yes	No No	456 456	1 3
Clinton 636V	Mfg. Co., NS	1217 W VT	. Washingtor B,P,S	Blvd., C 5-GO	hicago, No	111.—"C	Clinton'' 6½-PN	1 Yes	6V	1.7				51/2	10:1	Yes	Yes	No	456	2
Continer 965-6P 965-6P 920-6Q	\$ 49.95	FT	evision Cor B.P.S B.P.S B.S ₁	p., 325 V 6-OG 6-OG 6-GO*	V. Huro No No No	on St., C 2 2 2 .3	hicago, I 6-PM 8-PM 6-Mag	ll.—"A Yes Yes Yes	dmiral'' 6V 6V 2V-DB	1.85 1.85	.36	90	15	714 x618 714 x618 514 x418	16:1 16:1 16:1	Yes Yes No	Yes Yes Yes	No No No	456 456 456	2 2 1
Detrola 1 117A 144C 144B 145EA 145ECR	\$ 29.50° 55.00° 45.00° 59.50°	FT CON VT	B.S. B.S. B.S. B.P.S. B.P.S. B.P.S.	01 Beard 5-G* 5-O 5-O 8-OG 8-OG	Ave., D No No No No No No	.35 .7 .7 .7 .2 2	dich.—"I 6-PM 6-PM 6-PM 8-PM 8-PM	No Yes Yes Yes Yes Yes	2V-DB 6V 6V 6V 6V 6V	1.8 1.8 2.7 2.7	.36	135	14	6 6 6 6	10:1 5:1 5:1 5:1 5:1	No Yes Yes Yes Yes	Yes Yes Yes Yes Yes	No No No No No	480 456 456 456 456	2 2 2 2 2
Electrica 80BT 80BC 90BT 90BC 95BT	\$ 24.95	FT CON FT CON	B B B BS BS BS BS	22 Divers 5-G* 5-G* 5-G* 5-G* 7-G*	sey Pky No No No No No	Chica .6 .6 .6 .6	ago, 111.– 6-PM 8-PM 6-PM 8-PM 6-PM	No No No No No Yes	2V-DB 2V-DB 2V-DB 2V-DB 2V-DB 2V-DB 2V-DB	12%	.5 .5 .5 .5	135 135 135 135 135	19 19 19 19 19	11/2 11/2 11/2 41/2 61/2	12:1 12:1 12:1 12:1 24:1	No No No No No	Yes Yes Yes Yes Yes	No No No No No	465 465 465 465 465	1 1 1 1
95BC 73BT 96BTE 96BCE 78BTE	54.95 29.95 39.95 54.95 54.95	CON	B.P.S B B.S B.S B.P.S	7-G* 5-OG 5-OG 5-OG 7-OG	No No No No No	1 .6 .9 .9	8-FM 6-PM 6-PM 8-PM 6-PM	Yes Yes Yes Yes Yes	2V-DB 6V 6V 6V 6V	2 2 2 2 2.5	.42	135	21	61/2 11/2 41/2 41/2 8	24:1 12:1 12:1 12:1 24:1:1	No Yes Yes Yes Yes	Yes Yes Yes Yes Yes	No No No No No	465 465 465 465 465	1 2 2, 3 2, 3 2, 3
78BCE 93LT 93LC 97LT 97LC	79.95 39.95 59.95 NS NS	CON	B,P,S B,S B,S B,P,S B,P,S	7-OG 6-G 6-G 9-G 9-G	No No No Yes Yes	11/2 .2 .2 .2	10-PM 6-EE 8-EE 6-EE	Yes Yes Yes	6V 32V 32V 32V 32V 32V	2.5 1.5 1.5 2.3 2.3				8 6 6 6	24:1:1 24:1 24:1 24:1 24:1 24:1	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	No No No No No	465 465 465 465 465	2, 3
Emersor AJ-130 AJ-137 AJ-149 AF-176 AS-179	\$ 29.95 \$ 29.95 39.95 19.95 54.95 49.95	FT PO-T FT VT	B B B B B,S B,S	5-G 5-G 5-G 5-G 7-G* 6-OG*	ighth A No No No Yes No	lve., Ne	w York, 6½-PN 6½-PN 6½-PN 6½-PN 6½-PN	i No i No i No i Yes	2V-DB 2V-DB 2V-DB 2V-DB 2V-DB 6V-32V		.42 .42 .42 .42 .48	135 135 135 135	15 15 15 15	4 4 4 6 6	2:1 2:1 2:1 12:1 12:1	No No No No No	Yes Yes Yes Yes Yes	No No No No No	456 456 456 456 456	2
AF-179	49.95	FT	B,S th St., New Y	7-G*	Yes	3/2	6½-PN	1 Yes	2V-DB	17.11	.48	135	15	6	12:1	No	Yes	No	456	TI
641	\$ 19.75		В	4-G		.15	5-PM		2V-DB		.18	90	12	1½x2¼	1:1	No	No	No	456	
NOTES				6	V6-vo	lt.				SPEAR	KERS					MG31	ain'y n	etal. som	e glass	

NS—Data not supplied ‡—Price with batteries ¶—Price without batteries

CABINET STYLE ACR—Arm chair radio
CON—Console
FT—Flat table
T—Table
VT—Vertical table

POWER SUPPLY 2V-2-volt

32-V-32-volt DB-Dry battery "B" supply

FEATURES

1. Plug-in batteries
2. Vibrator power supply
3. Tuning indicator
4. Cabinet in colors
5. Band indicating dial.
6. AC conversion if desired
7. Iron core I.F.
8. Save battery dial light
9. Preselector on broadcast band

EE—Electrically excited field Mag—Magnetic PM—Permanent magnet dynamic

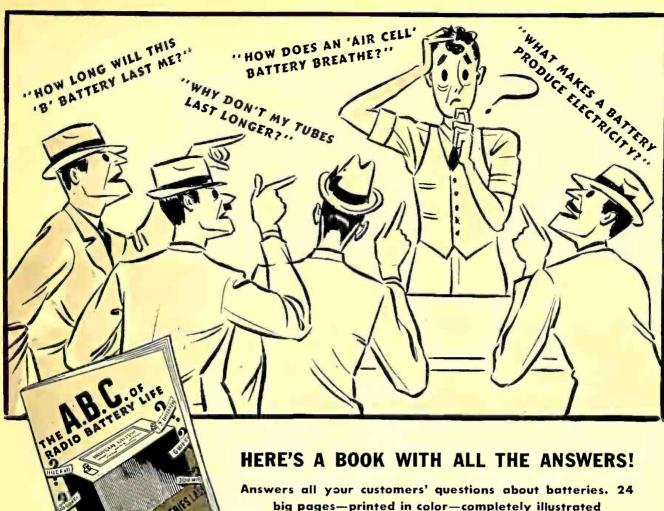
TUBES

*—Including ballast tube
G—Glass (old style)
0—Octal glass
M—Metal
GM—Mainly glass, some metal
GO—Mainly glass, some octal glass

MG—Main!y metal, some glass
MO—Mainly metal, some octal glass
GG—Main!y octal glass, some glass
OM—Mainly octal glass, some metal

WAVEBANDS

B—Broadcast (approx. 540-1700KC)
P—Police (approx. 1700-5000KC)
PI—Police (approx. 1600-3500KC)
SI-Medium shortware (approx. 2500-7000)
U—Utra shortware (approx. 2500-7000)
U—Utra shortware (approx. 2500-7000) W-Weather band (approx. 150-350KC)



-AND IT'S FREE!

Send this coupon for your free copy of this valuable book.



big pages—printed in color—completely illustrated

Every radio dealer should have a copy of this new book. It answers simply and accurately—the many questions about batteries and battery life that your customers are always asking. With it on the counter you can tell them in a minute just what they want to know... and show them the proof of your statements. This isn't just advertising matter. It covers the field. Each subject is completely illustrated with charts, cut-away sections of batteries, and hook-ups. You need a book like this . . . and if you're a legitimate dealer in radio supplies this one is yours-FREE! Just send us the coupon at the bottom of this page and we'll get your book off to you by return mail.

NATIONAL CARBON COMPANY, INC.

General Offices: New York, N. Y. . Branches: Chicago, San Francisco Unit of Union Carbide I and Carbon Corporation The words "Air Cell" are a trade-mark of National Carbon Company, Inc.

NATIONAL CARBON COMPANY, INC., P. O. Box No. 600, Grand Central Station, New York, N. Y.	
Please send me a free copy of the new illustrated book, "The A B C of Radio Battery Life."	
Name	_
Address	-5

25 July, 1937

CALENDAR OF RADIO SALES TIPS

Mid-summer ideas reported by half a dozen dealers

July 21-31

- 21—Install several different types of outside antennas on your service car as an auto-radio advertising stunt.
- 22—Paint a sunburst pattern on the sidewalk in front of your store, with the focus at the door.
- 23—Use a "Pay Balance Due" heading in your ads to promote your second-hand sets.
- 24—Choose a spot on your service truck to paint on all your engineering qualifications.
- 25-Sunday.
- 26—Make a splash with a promise to prospects to listen to any reasonable payment plan, adapted to individual incomes.
- 27—Start a contest to locate "The Oldest AC Radio in Town."
- 28—Collect a series of small motoring, bathing, boating or camping accessories to display along with phonograph-radios.
- 29—Promote your colored receivers under the head, "New Radio Shades for the Season."
- **30**—Advertise your location by identifying your store with well-known buildings nearby.
- 31—Publicize a photo of the local police chief, shown examining your sound truck, as a way to indicate that

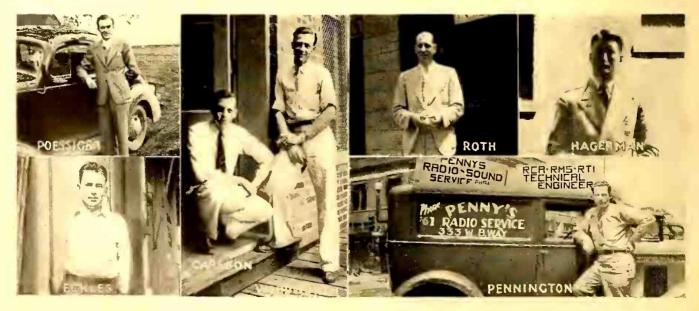
your street activity is 100 per cent within city ordinances.

Aug. 1-19

- 1-Sunday.
- 2—Make panels in your windows by using lines of radio tubes, placed end to end.
- 3—Spot an inter-phone near the entrance of your store, with a sign inviting incoming patrons to ask for their items by speaking through it.
- 4—Get a list of vacationists from your local travel bureau, sell them portable sets.
- 5—Arrange a row of chairs through the center of your floor, to plug new chairside radio models.
- **6**—Campaign on "cool listening"; use electric fans to create a stir among streamers tied to dial knobs.
- 7—Exhibit a series of photos of all your past sound installations.
- 8-Sunday.
- 9—Get a display rack that looks like a tree with branches; on the tips of the arms fasten some new records.
- 10—Write a sales letter to your mailing lists, asking "How many tube sockets are there in your home?" Folup with replacement sales.
- 11—Scatter a batch of local station call-letters in your window, plugging new push button tuning devices.

- .12—Fence off a corner with strips of movie film, for your home movie department.
- 13—Send prospects a special "summer inventory just for you," briefly listing all your models, price ranges, etc.
- 14—Experiment with small display ads in community weekly papers in your outlying districts.
- 15-Sunday.
- 16—Send out a post card listing all your different cabinet styles.
- 17—For a new display method, group your new consoles in a large semi-circle near the eutrance of your store.
- 18—Paint a large curve on your window, showing how reception quality improves during the remaining months of this year.
- 19—Start promotions on broadcast stars scheduled to resume performances this fall.

Dealers appearing as contributors this month are: Herbert Poessiger, Schmoller & Muller Piano Co., Council Bluffs. Iowa; Ralph Eckles, Holt Supply Co., Maryville, Mo.; George Roth, Paramount Radio, Omaha, Neb.; W. H. Woodworth and C. A. Carlson, Clariuda, Iowa; E. A. Pennington, Penny's Radio Service, Council Bluffs, Iowa, and George M. Hagerman. Orchard & Wilbelm, Omaha, Neb.



PUSH A BUTTON -THERE'S YOUR STATION!

There's a selling phrase that's going to mean more money for you

—because it tells the story of RCA Victor



RCA Victor Electric Tuning Model 811K, New Sonic-Arc Magic Voice, Magic Brain, Magic Eye, RCA Metal Tubes and many other fine features. . . List, \$150*

*(f.o.b. Camden, N.J., subject to change without notice)

Trademarks "Magic Brain," "Magic Eve," "Magic Voice,"
Reg. U. S. Pat. Off. by RCA Manufacturing Company, Inc.

ELECTRIC TUNING!

The first truly automatic tuning

Push a button—there's your station...already this phrase is becoming famous from coast to coast. For every week, millions and millions of people are reading it in magazines, in newspapers—hearing it over the air. And every time the phrase is used it means RCA Victor Electric Tuning.

That's why it will pay you to feature it. Display it prominently in your window. Spotlight RCA Victor Electric Tuning models in the center of your floor. Talk about Electric Tuning to everyone who comes into your store. It will prove a tremendous help in making more sales—more profits.

In addition to Electric Tuning, RCA Victor also has incorporated 54 other great features in the 1938 line. They, too, will help you sell. Really "go to town" with this magnificent line. The merchandise is right, the prices are right, the advertising and sales promotion efforts are right. Get ready now to march along with RCA Victor to a Victory Year. Stock as many RCA Victor models as you can!

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

RCA Victor

RCA Mfg. Co., Inc., Camden, New Jersey



A Service of the Radio Corp. of America

PARTS JOBBERS ASS'NS

National body, headed by L. C. Rucker Constitution defines "distributor, trade"

★ During the Chicago Parts
Show, a number of radio-parts distributors held organization meetings
for a National Radio Parts Distributors Association, to be incorporated "not for profit, but with the objects
of advancing and protecting the interests of wholesalers of radio parts
and promoting cooperation among
members."

Qualifications for membership, however, are specified by the new NRPDA constitution as "not including that type of person or concern which is recognized by some manufacturers as national or territorial sales agents."

The term Radio Trade is "defined to include servicemen, dealers, distributors, wholesalers, set manufacturers, tube manufacturers, parts manufacturers, and licensed amateurs."

Distributor defined

"The term Radio Parts Distributor is defined to mean anyone performing the functions hereafter mentioned and who does not do retail service work for consumers but who may do service work for the trade on a wholesale basis. Provided, however, that such a jobber does not perform such wholesale function merely to secure wholesale prices for the benefit of allied persons or corporations.

"Members of the association shall be limited to persons, firms or corporations actually engaged in the wholesaling of radio parts and tubes and performing the following functions:

"Purchase and resell at wholesale prices at least 75 per cent of the different essential major products necessary to supply adequately the requirements of the trade—these products to consist of the following: Volume controls, condensers, resistors, transformers, tubes, speakers, coils, wire, batteries, transmitters.

"Maintain and warehouse a stock of such products with a minimum investment of \$2.500."

Leslie C. Rucker, 1220 Fourteenth street. NW., Washington, D. C., was elected president of the new organization, and has sent the following message to the readers of Radio Today:

President's message

"Almost every ill and unfair practice known in this business was brought forth by wholesalers from all sections of the United States. It was agreed that neither you nor I could cope with the situation alone, and that only with the cooperation of all of those engaged in this business can we hold any hopes of ironing out the present drawbacks. The manufacturers are organized, and their credit men are members of the exchange bureaus and their sales managers are members of clubs and so on through the line. But we distributors are wading through darkness, narrow and small in our own little circles, so afraid that our competitors will know what we are do-

"The first step of the new NRPDA was to adopt a very open type of simplified constitution and by-laws, in order to get something started in the way of a national organization of parts distributors. Nine areas were laid out and a regional organizer from each was elected. These nine men then elected from their midst a president, vice-president, and secretary treasurer. The term of office of



Leslie C. Rucker, Washington, D. C., president new National Parts Jobbers.

these nine will terminate at the meeting to be held in New York at the Fall Show the first of October. The duties of these nine men are to call all distributors in their respective areas to a meeting and to make this appeal: Fellows, let's pull together—we know it will take time.

"We expect to make mistakes. We want to see the picture improved. Only with each of us being tolerant, yes to seventy-times-seven-overlooking our shortcomings and enlarging on each result of cleaner and more profitable business, can we expect to get anywhere. Each region is requested to "get together" and send their own delegates to vote in New York for regular directors of the future organization. The action taken in Chicago was not railroaded. It was the starting of a heartbreaking and thankless task unless you, my friend, will put your shoulders to the job, too.

Other regional directors elected to serve until the Fall Trade Show at New York, were:

W. A. Shuler, Shuler Supply Company, 902 Poydras Street, New Orleans, La.; R. C. Hewett, R & R Parts & Supply Company, Lubbock, Tex.; Frank E. O'Brien, Felt Radio Company, 245 South State Street, Salt Lake City, Utah; Ralph C. James, Sr., Seattle Radio Supply, Seattle. Wash.: R. R. Bauman, Bauman Company, St. Paul, Minn.; Clarence Kamm, Baumgardner Distributing Co., Toledo, Ohio; Ralph A. Demambro, Radio Transformer & Condenser Co., Boston, Mass.; J. V. Duncombe, Erie, Pa.

Blakely Cross, Adirondack Supply Company, Gloversville, N. Y., was elected secretary pro tem.

SOUTHERN PARTS JOBBERS ASSOCIATION

* A meeting of a representative group of distributors of radio parts and supplies from the Southern states was held on June 11th at the Stevens Hotel, Chicago, during the radio parts show, and the following distributors became members of the new Southern Radio Parts Jobbers' Association.

Auto Service Co...Birmingham, Ala. Dixie Radio Co....Columbia, S. C. Garvin Elec. Co....Atlanta, Ga. K-D Sales Co., Inc. Shreveport, La. Henry's Radio Shop....Butler, Mo. P. I. Burks Co....Louisville, Ky. Nelson Radio Supply...Mobile, Ala. Pan-American Radio Co., Miami, Fla. Radio Accessories Co.. Orlando, Fla. Radio Elec. Co....Birmingham, Ala.

(Continued on page 68)



12 tubes - 12" Speaker

Beautiful Styling YOU GET EVERYTHING

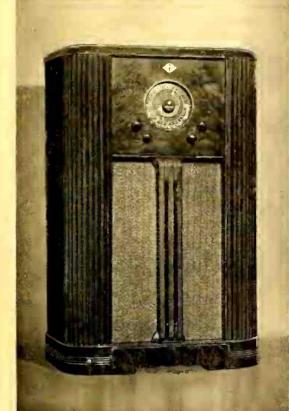
IN THE NEW 1938



ARVINS

WITH THE

Phantom Filter Circuit



There's big sales appeal in the Arvin line—20 exceptionally fine radios in smartly designed cabinets—with every modern improvement headed by Arvin's exclusive Phantom Filter Circuit.

• You'll realize the sales value of the new 1938 Arvins when you see and listen to the beautiful consoles and table models. Arvin has everything-five to fourteen tube AC radios-powerful battery sets for farm homes—and striking AC-DC portables. Arvin has both the performance and the styling which appeals.

There's real selling support behind the Arvin line—a big program of nation-wide consumer advertising in leading weekly and monthly magazines-more than 50 million Arvin sales messages to your best prospects before Christmas . . . Impressive merchandising displays for your floor or show window . . . and other promotional material that makes sales and profits for you. See and listen to the new Arvins at your jobber's.

NOBLITT-SPARKS INDUSTRIES, INC. · COLUMBUS, INDIANA Also Makers of Arvin Phantom Filter Car Radios





ARVIN Phantom Junior Made! 618 6 Jubes - 6" Speaker

ARVIN Phantom Knight Model 828 8 tubes - 10" Speaker



Tube-amplified piano—one of those shown at the Music Merchants' meet this month played by inventor B. F. Miessner. Speaker cabinet in background.

NEW MUSICAL INSTRUMENTS

- pianos, mandolins, viols, now with tube amplifiers
- "radio" knowledge essential for sales and service

* WITH the return of popular interest in self-created music, a new musical tool has been made available for the music-lover—again a gift of radio! This new musical aid is the radio-tube amplifier which makes it possible for the relatively weak tones of any instrument to be built up in volume to any desired loudness, yet still retaining all the quality and richness of the original sounds.

Simply a miniature "public-address" system hooked onto a particular instrument—such an amplifier has enabled stringed instruments in quartets to be reinforced in volume, until the impression given is that of many performers playing similar instruments. For several years viols and violas in dance orchestras have made use of these amplifier devices to give added volume. A microphone pickup is placed under the strings, and the amplification is depended upon to give any desired loudness.

Viols, violins, mandolins, guitars, banjos and other stringed instruments have already been equipped with radio-tube amplifiers with great success. In some cases, the instruments themselves have been specially designed or

modified for amplification pick-ups. In other instances, special compact amplifier units have been provided, with a microphone which can be slipped under the strings or into the sound-box—thus making any ordinary instrument an amplified device at will.

And now the piano has been added to the list of radio-tube devices.

The present strong trend to smaller and smaller uprights in the piano field and the recent rapid decline of larger uprights and grands since the introduction of the miniature pianos, have lowered prices and improved furniture values, due to the cute small designs. But with each decrease in piano size, the tone had become worse and worse,

Tone of concert-grand

But now adapting the principles of radio-tube amplifiers and controls, these small pianos can be given finer tone and greater volume than even a \$3.000 concert grand, though still using the compact small designs. Already seven or eight piano manufacturers are bringing out such new "radio pianos" to sell around \$500.

Others are developing small keyboards and string sound boards with microphones, which can be plugged into any home radio set, thus affording the humblest home a piano of unsurpassed tone and volume, at little cost.

Meanwhile, the progress in home electric organs goes on. These compact instruments have lately been provided with player-roll operation. The next step in this field may be the incorporation of the compact organtone generator and keyboard directly into radio sets of the better console type, so that a music-lover—failing to find "on the air" music to his liking—can pull a chair up to his radio-set "organ keyboard" and play his own arias and fugues.

With tube amplification playing an important part in the pianos and other musical instruments of the future, as well as in phonographs and combinations, it is apparent that the musical dealer is going to be required to have a pretty completely equipped service department, and a personnel trained to sell radio-tube devices all along the line.

TUBE-AMPLIFIER MUSICAL INSTRUMENTS

Organs

Hammond Clock Co., 2915 N. Western Ave., Chicago, Ill.

Everett Orgatron, South Haven,
Mich.

Rangertone, Newark, N. J.

Pianos

Aeolian American Co., 5th Ave. & 54th St., New York.

Krakauer Bros., 115 W. 57th St., New York.

Hardman Peck & Co., 33 W. 57th St., New York.

Mathushek Mfg. Co., 43 W. 57th St., New York.

Story & Clark Piano Co., 64 E. Jackson St., Chicago.

Sohmer & Co., 31 W. 57th St., New York.

Miessner Laboratories, Millburn, N. J.

Rudolph Wurlitzer Co., DeKalb, Ill.

String Instruments, Mandolins, Violins, Guitars, etc.

Theremin Laboratories, 37 W. 54th St., New York.

Epiphone, Inc., 142 W. 14th St., New York.

Vega Guitars, 153 Columbus Ave., Boston.

Gibson Co., Kalamazoo, Mich.

Volu-tone Co., 226 N. Main St., Los Angeles, Cal. Rickenback Co., Los Angeles, Cal.

INSTRUMENTS FOR MUSIC LOVERS



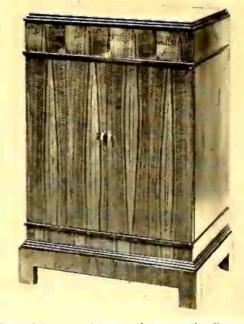
Recoton is out with a record player with sliding insides, to be used with any radio.



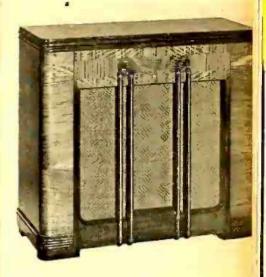
Pilot presents an AC-DC phono-radio compactly cased as a new table type instrument.



Sonora's table "Troubadour" combination with crystal pick-up and all-wave radio.



Marconiphone model accenting pure simplicity and a new treatment of wood grains.



Medium-priced at \$129.95, a combination RCA Victor has features including 4½ w. output.

15- tube high-fidelity operation with volume range expander and record changer. Note record space in this model by Emerson for \$750.







Important Facts About Amazing New RADIO Invention

In answer to hundreds of inquiries and dozens of unfounded rumors—and in fairness to our dealers and distributors—Stewart-Warner feels compelled to reveal certain facts about the new radio

invention soon to be released.

You know, of course, that most radio inventions are "patent pool" affairs—that anyone can use them—and that claims to exclusiveness are so much bunk. But don't be misled. That isn't true in this case—and that's why we publicly answer these ques.

tions everyone is asking:

"Is the new Stewart-Warner radio

Yes! It is an exclusive development of invention exclusive?" Stewart. Warner's own laboratories—subject to exclusive patents and no other manufacturer has been licensed to make it!

"Several manufacturers have already announced electric push button tuners.

Aren't they just like what Stewart.

Warner has?"

No! Nothing yet announced or to be announced this year is the same thing Stewart-Warner has!

"Won't other radios do the same thing this invention will do?" thing this invention will do:

No! This is a new, precision-built deNo! This is a new, radio—engineered

vice added to a fine radio—engineered
into it—and it results in an utterly new
into it—and it results in performance.

into it—and it results it at at a standard of radio performance. "Has any independent expert seen it

-and what does he say about it? Yes—one of America's most famous Yes—one of America's most famous radio engineer-editors has seen it. He radio "I've inspected every this year—and says, to be released this year—and of radios to be released this year—and the radios to be released this year when here is absolutely exclusively the radios to be released. of radios to be released this year and what you have here is absolutely exclusive. No other manufacturer has anything like it either in design or performance. sive. No otner manuracturer nas anytume like it—either in design of Performance!

Ask your Stewart-Warner Distributor now to

Ask your ocewart-warner Distributor now to give you first chance at this amazing new kind of radio. It's 1938's best bet. CHICAGO, ILL.

STEWART-WARNER CORPORATION .

BY STEWART-WARNER

HERE IT IS! ... And There's Nothing Else Like It in Radio!

A mechanical marvel of watch. like Precision not an electrical novelty.

novelty.

• Faster better simpler than any "electric tuner" impler than ment made possible a develop. Warner radio and orecision. Warner radio and or Stewart-instrument laboratories.

Tunes any one of 15 stations in a tion wanted no slow travel to a Switching point and back. Utterly flexible in choice of stations. Can be set for any 15 stations

in any order regardless of location on dial. STEWART-WARNER CORPORATION . CHICAGO, ILL.

• Independent of A. F. C. because mechanically perfect. A. F. C. is carelace initial carring against careless initial setting.

Fully automatic no hand switches nothing to forget. Any one of the "pre-selected" stations can be replaced at any new station, without disturbing the adjustments for the other fourteen.

• Absolutely silent—no electrical hum or buzz no between-station

Available for any line voltage or

SALES FEATURES AND SPECIFICATIONS OF THE 1937-38 RADIO SETS

Continuing 110-v. sets listed in June. Farm model sets listed on pages 24,62,64.

A detailed buying guide of all American receivers compiled by Radio Today.

Model No.	List price	Cab- inet style	Wave- bands	No. of tul:es	S. W. R. F. amp.	Spkra size type	Watts I	Supply	Selec- tivity con- trol	Tone con- trols	Vis- ual tun- ing	Auto- matic tun- ing	AFC	Size	Dial Ratio		\cous- tical devices	I.F. Fea Peak tur
Clarion Cor	p., 88 Pure	Oil Bldg.,	Chicago, I	ll.—"Clarie	on''												_	
70 71 88X	\$19.99 29.95 39.95	T T FT	B,S ₁ B,S ₁ B,P,S	7-GO* 7-GO* 8-GO	NS NS No	NS NS 8EE	NS NS 6	AC-DC AC-DC AC	NS NS NS	NS NS	NS NS CR	NS NS NS NS	NAZZZZZZ NAZZZZZZ NAZZZZZZ	NS NS NS	NS NS NS	NS NS	NS NS NS NS NS NS	456 456 456
89X 600	49.95 39.95	FT	B,P,S B,P,S	8-GO 6-GO	No NS	8EE NS	6 NS	AC	NS	i NS	CR	NS NS	NS		NS	XX X X X X X X X X X X X X X X X X X X	NS NS	456
601 700	49.95 19.95	Ť FT	B.P.S B.S ₁	6-GO 7-GO*	NS NS	NS 5EE	NS 1.7	AC AC AC AC-DC	NN	NS 1	NS NS CR	NS	NS	NS	NS NS	NS NS	NS NS NS	456 456 456
701 750	29.95 29.95	FT T	B_iS_1	7-GO* 7-G	NS	5EE	1.7 NS	AC-DC	NS	1	CR	NS NS NS NS NS NS	NS	25 25 25 25 25 25 25 25 25 25 25 25 25 2	755 755 755 755 755 755	NS	NS	456 456
751	34.95	Ť	B,S ₁ B,S ₁	7-G	NS NS	NS NS	NS	AC AC	NS NS	NS NS	NS NS	NS	NS NS	NS	NS	NS NS	NS NS	456
Crosley Rad 517A	io Corp., 13 \$19.99	329 Arlingt VT		cinnati, Ohi 5- O	o—"Cro	sley" 5EE	21/2	43A C	No	o	No	No	No	51/2	12:1	Yes	No	455
517B 547A	19.99 20.99	FT VT	B,S B,S	5-O 5-O	No No	5EE 5EE	214	43AC 43AC	No No	0	No No	No TD	No No	51/2	12:1 12:1	Yes Yes	No No	455 455
547B 547M	20.99 39.95	CON	B.S B.S B.S B.S B.S	5-O 5-O	No No	5EE 8EE	2 ½ 2 ½ 2 ½ 2 ½ 2 ½ 2 ½	43AC 43AC	No No	0	No No	TD TD	No No	5½ 5½ 5½ 5½ 5½	12:1 12:1	Yes Yes	No No	455 455
567M 567N	24.95 24.95	ACR ACR	B.S B.S B.S	5-O 5-O	No No	SEE SEE	21/2 21/2 21/2	43AC 13AC	No No	8	No No	No No	No No	516	12:1 12:1	Yes Yes	No No	455 455 455
567P 537	27.50 25.00 R		В	5 O 5-Q	No	5EE 5½EE 8EE	21/2	43AC 43AC	No No	8	No No	No No	No No	51/2 31/4	12:1 6:1	Yes Yes	No No	455
817A 1117M	39.95 69.95	FT	B.P,S B.P,S	5- O 7- O	No No	10EE	7	88AC 101AC	No	1	No CR	No No	No No	61/2	12:1	Yes	No No	455 455
Emerson Ra												racle I		hamb	-			icro Selec
AD108-W AD108-I	\$19.95 22.95	VT VT	B,P ₁ B,P ₁	5-GMO 5-GMO	No No	5EE 5EE	2 2 2	45AC-DC 45AC-DC	No No	0	No No	No No	No No	2	2:1 2:1	Yes Yes	No No	456 456
AM131 AC149-W	29.95 19.95	FT FT	B.S B,P ₁	6-GMO*	No No	61/4EE 61/4EE	3	45AC-DC	No No	0	No No	No No	No No	4	12:1 2:1	Yes	No No	456 456
AC149-BI R153	22,95 26,95	FT	B,P ₁	5-G 5-G	No	6½EE 6½EE	3	45AC 45AC	No	1	No No	No	No No	4	2:1	Yes	No	456 456
R156 O157-W	22.95 14.95	VT VT	B,P ₁ B	5-G 4-GM	No	61/EE 5EE	3 2	45AC 45AC-DC	No No	0 0	No No	No No	No No	4 4	1:1	Yes No	No No	456 456
O157-BI O157-I	16.95 16.95	VT VT	B	4-GM 4-GM		5EE 5EE	2 2	45AC-DC 45AC-DC	No No	0	No No	No No	No No	4	1:1	No No	No No	456 456
R158 R167	34.95 29.95	FT	B.P ₁ B.P ₁	5-G 5-G	No No	612EE 612EE	3	45AC 45AC	No No	1	No No	No No	No No	4	1:1 1:1	Yes Yes	No Yes	456 456
AL168 AM169 AT170	25.95 39.95 49.95	FT FT VT	B,P ₁ B,S B,S	6-GMO* 6-GMO*	No No No	61/2EE 61/2EE 61/2EE	2 2 5	45AC-DC 45AC-DC	No No No	0 1 1	No No No	No No TD	No No No	4 4 NS	1:1 2:1 12:1	No Yes Yes	No Yes Yes	456 456 456
AR171	39.95	FT	B,S	6-G	No	6½EE 6½EE 6½EE	5.	55AC 55AC	No	1	No	No	No	6	12:1	Yes	No	456 456
AT172 AR173 AR176	54.95 49.95 44.95	FT VT	B,S B,S	6-G 6-G	No No	61/2EE 61/2EE	5 5 5	55AC 55AC 55AC	No No	1 1	No No No	TD No No	No No No	NS 6 6	12:1 12:1 12:1	Yes Yes Yes	Yes Yes No	456 456
AP176 AP185	44.95	VT	B,S,W	6-G 6-GMO*	No No	61/2EE	2	50AC-DC	No No	1	No	No	No	6	12:1	Yes Yes	No Yes	456 456
AM 187 Q188	49.95 34.95 24.95	FT FT FT	B,S,W B,S B	6 GMO* 6-GMO*	No No	61/2EE 61/2EE 5EE	2 2 2 5	50AC-DC 45AC-DC 45AC-DC	No No No	1 0	No No No	No No No	No No No	6 4 4	12:1 12:1 1:1	Yes Yes	No No	456 456
AR174 AP174	79.95 79.95	ACR ACR	B,S B,S,W	4-GM 6-G 6-GMO*	No No	10EE 10EE	5 2	55AC 50AC-DC	No No	1	No No	No No	No No	6	12:1 12:1	Yes Yes	Yes Yes	456 456
X178 AR180	99.95 49.95	CON	B.P.S	15-MG 6-G	Yes No	15EE 10EE	15 5	130AC 55AC	No No	1	CR No	No No	No No	6	12:1 12:1	Yes Yes	No No	456 456
AT181 AB182	69.95 89.95	CON	B.S B.S B.P.S	6-G 14-MG	No Yes	61,EE 15EE	5 15	55AC 130AC	No No	1	No No	TD No	No No	NS 6	12:1 12:1	Yes Yes	No No	456 456
X183 AL164	119.95 79.95	CON PC-PO	B.P.S B.Pı	15-MG 6-GMO*	Yes	15EE 61,EE	15	130AC 80AC-DC	No No	0	CR No	No No	No No	6	12:1	Yes Yes	No No	456 456
AR165 AP165	119.95 119.95	PC-ACR	B.S	6-G 6-GMO*	No	10EE 10EE	2 5 5	95AC 95AC-DC	No No	1	No No	No No	No No	6	12:1 12:1	Yes Yes	Yes Yes	456 456
AR166 AP166	89.95 89.95	PC-T PC-T	B,S B,S,W	6-G 6-GMO*	No No	614EE 612EE	5	95AC 95AC-DC	No No	1	No No	No No	No No	6	12:1 12:1	Yes Yes	Yes Yes	456 456
X175 AR177	750.00 99.95	PCA PC-T	B,P,S B,S	15-MG 6-G	Yes No	15EE 614EE	15 5	195AC 95AC	No No	1	CR No	No No	No No	6	12:1 12:1	Yes Yes	Yes Yes	456 456
AP177 AB184	99.95 139.95	PC-T PC	B,S,W B,P,S	6-GMO* 14-MG	No Yes	61 2 EE 15 E E	2 15	95AC-DC 185AC	No No	î 1	No No	No No	No No	6	12:1 12:1	Yes Yes	Yes No	456 456 456
R189 AL149LW-W	59.95 29.95	FT	B,P ₁ B,W	5-G 6-GMO*	No No	6EE	3	75AC	No No	0	No No	No No	No No	4	1:1	Yes Yes	No No	456
AL149LW-BI AL168W	31.50 30.95	FT FT	B,W B,W	6-GMO*	No No	61/4EE 61/4EE 61/4EE	2 2 2	45AC-DC 45AC-DC 45AC-DC 45AC-DC	No No	0	No No	No No	No No	4	2:1 2:1	Yes Yes	No No	456 456 456
AMISILW AMISILW	34.95 39.95	FT FT	B,S,W B,S,W	6-GMO* 6-GMO*	No No	614EE	2 2	45AC-DC	No No	1	No No	No No	No No	4	12:1 12:1	Yes Yes	No N	456
AM169LW AL164LW	44.95 84.95	FT PC-PO	B.S.W B.W	6-GMO* 6-GMO*		61/2EE 61/2EE	2 2	45AC-DC 80AC-DC	No No	1 0	No No	No No	No No	4	12:1 2:1	Yes Yes	Yes No	456 456
Electrical R														4.5	10.1	V	Nic	465
72AT 72ATE 82AT	\$ 19.99 26.95 34.95	FT FT FT	B.S ₁ B.S ₁ B.P.S	5-G 6-G	No No	6EE 6EE 6EE	3 3 3	53AC 55AC	No No No	1 1 1	No CR No	No No TD	No No No	414 412 8	12:1 12:1 2483:1	Yes Yes Yes	No No No	465 465 465
82AT 82AC 86ATE	54.95 59.95	CON FT	B.P.S B.P.S	6-G 6-G 8-O	No No No	SEE SEE	3 6	53AC 53AC 65AC	No No	1 1	No CR	TD	No No	8	24&1:1 24&1:1 24&1:1	Yes Yes	No No	465 465
86ACE 76AC	79.95 99.95	CON	B,P,S B,P,S	8-O 11-MG	No No	12EE 12EE	6 81/2	65AC 115AC	No No	1.	CR Flash	TD	No Yes	8 9	24&1:1 24&1:1	Yes Yes	No No	465 465
Fada Radio										•	2 . 1001			-Dial''	"Flash-O-N			
350+	NS NS	FT	B,P ₁	5-GO* 5-GO	No No	5EE	1.2	45AC-DC 58AC	No No	0	No No	No No	No No	3	1:1 15:1	No Yes	No No	456
351† 352† 353†	NS NS	FT FT FT	B.P ₁ B,S	5-GO* 5-GO	No No	61/2EE 61/2EE 61/2EE	1.2	45AC-DC	No No	1	No No	No No	No No	41/2 41/2 41/2 21/2	15:1 15:1	Yes Yes	No No	456
354†	NS	FΤ	B,P ₁	5-GÖ	No	61ZEE 5EE	2 2	58AC 58AC	No	0	No	No	No	21/2	7:1	Yes	No	456
						((Continu	ed on pay	ge 38)									

TWO SENSATIONAL NEW MODELS IN THE CROSLEY ALL-STAR RADIO LINE

CROSLEY SUPER 8

A superb new table model that gives the same fine tonal quality and selective reception usually found only in higher priced console models. Ideal for small apartments where limited space restricts the use of a console model.

8 Octal Base tubes; 3 bands, 535-22,000 Kc. continuous; Push-pull output (5 watts maximum); Automatic Volume Control; 8" Electro-dynamic speaker; Line noise filter; Gold reflector type Mirro-Dial with calibrations fused on convex glass dial; Walnut veneer cabinet with gold-finished escutcheons; Front and side panels of sliced and stump walnut; Decorative maple inlays; 2 gold grille bars. Dimensions: 1014" high, 1678" wide, 738" deep.

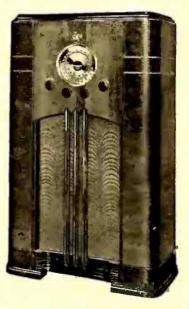


CROSLEY SUPER 11

One of the brightest stars in the Crosley All-Star Line . . . an unsurpassed radio value that offers all the latest and most desirable features and advancements, plus new cabinet beauty comparable to the most expensive console models on the market.

11 Octal Base tubes; 3 bands, 535-22,000 Kc. continuous; Push-pull output (10 watts maximum); Automatic Volume Control; Tone Control; Electron Ray tuning indicator; 10" Electro-dynamic speaker; Line noise filter; Gold reflector type Mirro-Dial with calibrations fused on convex glass dial; Half round walnut front panel with gold-finished escutcheon and decorative inlays; V-matched and half round walnut pilasters and side panels; Top of sliced walnut. Dimensions: 40" high, 24" wide, 1234" deep.





THE CROSLEY RADIO CORPORATION - CINCINNATI

POWEL CROSLEY, Jr., President

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

YOU'RE THERE WITH A CROSLEY

SCHOOL STATES

and AC RADIO



Two exclusive new Sentinel Automatic Tuning Dials—sensationally different, simpler to operate and more efficient. Once again, Sentinel shows the way with Automatic Tuning on Farm Radio and a unique AC Automatic Tuning Dial beyond comparison with anything you've seen before. It's an absolute knockout, with a real sales punch that means profits for you. And, best of all, Sentinel Automatic Tuning Dials are adjusted by your customer himself, in a few minutes, from the front of the dial, no service man required, thereby cutting down your sales and service costs! Feature the Sentinel Automatic Tuning Model this year, and watch your sales and profits jump!





Get off-the Sentinel Band Wagon—go to town this year with Sentinel's greatest Farm Radio Line. There's a real market for Sentinel Farm Radio, established by 10 years of pioneering in the Farm Radio

Again Sentinel demonstrates the leadership that has made it the "Number One" Farm Radio Line of America. This year the Sentinel Line is more outstanding than ever before! It's complete, with 2 Volt, 6 Volt, 32 Volt and Combination 6 and 110 Volt AC Models in every price bracket, and all sensibly priced, too! Exclusive features galore—with RAD-O-FONE. Automatic Tuning, Low Battery Drain, and a dozen others—the least of which will enable you to outsell all competition!

Sell the Farm Radio that the farmer knows and respects—that's built by Sentinel, the Pioneer of Farm Radio—that's nationally advertised to the farmet—and planned to make you a real profit on every sale! Mail the coupon today for full details.



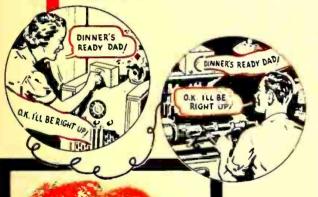
from \$24.95 to \$89.95

Sentinel CORPORATION

DOUBLE-PURPOSE RADIO with RAD-O-FONE

SENTINEL plus EXTENSION plus
RADIO SPEAKER

ALL FOR THE PRICE OF AN ORDINARY RADIO ALONE!



SENTINEL SCOOPS THE INDUSTRY

RAD-O-FONE is the outstanding radio development of the year, and opens up an entirely new field of radio utility. Imagine a radio that not only gives you exceptionally fine performance, with every modern feature, and, in addition, will act as a two station communication system. That's not all-the second station will act as an extension speaker, reproducing the radio program exactly with splendid tone quality and fidelity.

Just take a minute to think of this as a selling feature—imagine the sales and profit possibilities of the sensational new development. There are hundreds of applications for the Sentinel RAD-O-FONE in homes and in business. There's nothing like it available. Send in the coupon today, learn all about this exciting new feature and the outstanding Sentinel 1938 Line of Farm and AC Radio.

A DISTINCTIVE, FAST SELLING Sentinel AC LINE

This year Sentinel offers the dealer a truly outstanding AC Line, with models in every price bracket from \$19.99 to \$99.95-Automatic Tuning, newer and finer performance than ever before, plus RAD-O-FONE, the most sensational and outstanding radio development of the year!

You can really "go to town" with the Sentinel AC Line. It's got real sales punch and plenty of new and exclusive selling features that you can get excited about! There's plenty of profit opportunities in this line for any dealer! Mail the coupon today for complete information.



from \$19.99 to \$99.95

MAIL **THIS** COUPON

SENTINEL RADIO CORPORATION, DEPT. RT7 2222 Diversey Pkwy., Chicago, III. Please rush me complete details of the outstanding Sentinel 1938 line.
Name
Address.

SALES FEATURES AND SPECIFICATIONS OF THE 1937-38 SETS

Model No.	List price	Cab- inet style	Wave- bands	No. of tubes	S. W. R. F. amp.	Spkr. size type		Power Supply watts		Tone con- trols	ual	Auto- matic tun- ing	AFC	Size	Dial Ratio	AVC	Acous- tical device	Peak	Fea- tures
Fada Radio	& Electric	c Co.,—Co	ntinued			(Co	nti <mark>nu</mark> e	d from po	ge 3	4)									
355† 360†	NS NS	FT FT	B.S B,P ₁	5-G() 6-G()*	No No	5EE 5EE	$^{2}_{1.2}$	58AC 54AC-DC	No No	0	No No	No No	No No	21/2 21/2 41/2 21/2 41/2	7:1 7:1	Yes Yes	No No	456 456	
361† 362†	NS NS	FT	B.Pi B.S	6-G()* 6-G()*	No No	6½EE 5EE	1.2 1.2	54AC-DC 54AC-DC	No No	0	No No	No No	No No	21/2	7:1 7:1	Yes Yes	No No	456 456	
363† 365†	NS NS	FT	B,S B,S	6-GO* 6-OG	No No	6½EE	2.5	54AC-DC	No No	1	No No	No No	No	41/2	15:1 15:1	Yes	No	456 456	13
365C 365PF	NS NS	CON PC-PO	B.S B.S	6-OG 6-OG	No No	614EE 8EE 614EE	2.5	60AC 60AC 60AC	No No	ī 1	No No	No No	No No	6	15:1 15:1	Yes Yes	No No	456 456	13 13 13
365PT 366C	NS NS	PC-T CON	B.S B.S	6-OG 6-OG	No No	612EE 8EE	2.5	60AC 60AC	No No	1	No No	No Yes	No No	41/2	15:1 15:1	Yes Yes	No No	456 456	13 13
366T 370†	NS NS	Ť	B,S B,P,S	6-OG 7-GO*	No No	61/FF	2.5 1.2	60AC 53AC-DC	No No	1	No No	Yes No	No No	41/2	15:1 15:1	Yes Yes	No No	456 456	13 13
370C 370PF	NS NS	CON PC-PO	B.P.S B.P.S	7-GO* 7-GO*	No No	6½EE 8EE 6½EE	1.2	53AC-DC 53AC-DC	No No	1	No No	No No	No No	6 41/2	15:1 15:1	Yes Yes	No No	456 456	13 13 13 13 13
370PT	NS .	PC-T	B.P.S	7-GO*	No	6½EE	1.2	53AC-DC	No	1	No	No Yes	No	6	15:1 15:1	Yes	No No	456 456	13
372C 372T	NS NS NS	CON FT FT	B.P.S B.P.S	7-GO* 7-GO*	No No	8EE 6 EE	1.2	53AC-DC 53AC-DC	No No	1 1 1	No No	Yes No	No No No	6	15:1 15:1 15:1	Yes Yes	No No	456 456	13 13
380T 380C 382C	NS NS	CON	B.P.S B.P.S	8-OG 8-OG	No No	8EE 12EE 12EE	31/2 31/2 31/2	70AC 70AC 70AC	Yes Yes Yes	1	CR CR CR	No TD	No No	6	15:1 10:1	Yes Yes	No No	456 456	13 13
390T	NS	FT	B.P.S	8-OGM 9-OGM*		8EE	11/2	54AC-DC	Yes	1	CR CR	No	No	6	15:1 15:1	Yes Yes	No	456 456	13 13
390C 392C 410C, 410CA	NS NS NS	CON	B.P.S B.P.S B.P.S	9-OGM* 9-OGM*	No	12EE 12EE	11/2 11/2 11/2 31/2 31/2	54AC-DC 54AC-DC	Yes Yes Yes	1 1 1	CR CR	No TD TD	No No Yes	6 8 8	10:1 10:1	Yes Yes	No No No	456 456	13 13
410PC	NS	CON PC	B,P.S	10-MOG 10-MOG	No	15EE 15EE	31/2	72AC 72AC	Yes	i	CR	TD	Yes	8	10:1	Yes	No	456 456	13
411C,411CA 411PC 413C	NS NS NS	CON PC CON	B.P.S B.P.S	11-MGO	* No	15EE 15EE	1½ 1½ 8	56AC 56AC	Yes Yes	1	CR CR CR	TD TD TD	Yes Yes Yes	8 8	10:1 10:1 10:1	Yes Yes Yes	No No No	456 456	13 13 13 13
413PC 1216T	NS NS	PC VT	B.P.S	13-MOG 13-MOG	Yes	15EE 15EE	8	95AC 95AC 125AC-DC	Yes Yes	1	CR CR	TD No	Yes	8.	10:1 80:12:1	Yes Yes	No No	456 456	13
212†	NS	VT	B.P.S.U B.P.S.U	16-M* 12-M	Yes	10EE	15	135AC-DC	Yes Yes	1	CR	No	No	7	80:12:1	Yes	No	456	
fAvailable in Grebe Mfg. (rs tollowing m	odel No.												
206-L 703-L	\$47.50 NS	T T	B,S B,S,W	6-GM 7-GO*	No No	6EE 6EE	3	55AC 40AC-DC	No No	1	CR CR	No No	No No	6x7 6x7	15:1 15:1	Yes Yes	No No	456 456	2 2
307-L 803-L	62.50 62.50	† T	B.P.S B.P.S	7-OM 8-OM*	No No	8EE 8EE	41/2 3	65AC 40AC-DC	No No	î 1	CR CR	No No	No No	6x7 6x7	15:1 15:1	Yes Yes	No No	456 456	2 2 2 2 2 2
309-L 309-EL	83.50 88.50	Ť	B.P ₁ .S B.S.W	9-MO 9-MO	Yes Yes	8EE 8EE	41/2	75AC 75AC	No No	î	CR CR	No No	No No	8x8 8x8	15:1 15:1	Yes	No No	456 456	2
903-L 903-EL	83.50 88.50	T	B.P ₁ .S B.S.W	9-OM 9-OM	Yes Yes	SEE SEE	5	90AC-DC 90AC-DC	No No	î	CR CR	No No	No No	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	2 2
3012-L 4012-EL	99.75 109.75	T T	B.P.S B.P.S.W	12-MO 12-MO	Yes Yes	8EE 8EE	10	100AC 100AC	No No	î	CR CR	No No	No No	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	2 2
1203-L 1204-EL	99.75 109.75	T	B.P.S B.P.S, W	12-MO 12-MO	Yes Yes	8EE 8EE	10 10	100AC-DC 100AC-DC	No No	1	CR CR	No No	No No	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	2 2
307-T 803-T	63.75 83.50	Ť T	B.P.S B.P.S	7-OM 8-OM	No No	8EE 8EE	41/2	65AC 40AC-DC	No No	î 1	CR CR	No No	No No	6x7 6x7	15:1 15:1	Yes Yes	No No	456 456	2 2
309 T 309-ET	83.50 88.50	Ť	B,P ₁ ,S B,S,W	9-MO 9-MO	Yes Yes	8EE 8EE	41/2	75AC 75AC	No No	1	CR CR	No No	No No	8x8 8x8	15:1	Yes Yes	No No	456 456	2 2 2
903-T 903-ET	83.50 88.50	Ť T	B.P ₁ .S B.S.W	9-OM 9-OM	Yes Yes	8EE 8EE	5 5	90AC-DC 90AC-DC	No No	î	CR CR	No No	No No	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	2
3012-T 4012-ET	99.75 109.75	T T	B,P,S B,P,S,W	12-MO 12-MO	Yes Yes	8EE 8EE	10	100AC 100AC	No No	1	CR CR	No No	No No	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	2 2
1203-T 1204-ET	99.75 109.75	T	B.P.S. B.P.S.W	12-OM 12-OM	Yes Yes	10EE 10EE	10 10	100AC-DC 100AC-DC	No No	· 1	CR CR	No No	No No	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	2 2
206-1 307-1	69.95 89.95	CON	B.S. B.P ₁ .S	6-GM 7-OM	No No	12EE 12EE	3 41/2	55AC 65AC	No No	î	ČR CR	No No	No No	6x7	15:1 15:1	Yes Yes	No No	452 456	2 2
803-1 309-2	89.95 109.50	CON	B,P ₁ .S B,P ₁ .S	8-OM* 9-MO	No Yes	12EE 12EE	3	40AC-DC 75AC	No No	î	CR	No No	No No	6x7 8x8	15:1 15:1	Yes Yes	No No	456 456	2
309-E2 903-2	119.50 109.50	CON	B,S,W B,P ₁ ,S	9 MO 9-OM	Yes Yes	12EE 12EE	41/2	75AC 90AC-DC	No No	1	CR CR	No No	No No	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	2 2 2
903-E2 3012-3	119.50 133.50	CON	B.S.W B.P.S	9-OM 12-MO	Yes Yes	12EE 12EE	5	90AC-DC 100AC	No No	î 1	CR CR	No No	No No	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	2 2
4012-E3 1203-3	143.50 133.50	CON	B,P,S,W B,P,S	12-MO 12-OM	Yes Yes	12EE 12EE	10 10	100AC	No No	1	CR	No	No No	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	2 2
1204-E3 3016-4	143.50 189.50	CON	B,P,S.W B,P,S	12-OM 16-MO	Yes Yes	12EE 12EE	10 15	100AC-DC 100AC-DC 130AC	No Yes	1	CR CR CR	No No No	No Yes	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	2 2 2 2 2
4016-E4 1603-4	199.50 189.50	CON	B,P,S,W	16-MO	Yes	12EE 12EE	15 10	130AC	Yes Yes	1	CR	No No	Yes Yes	8x8	15:1	Yes Yes	No No	456 456	
1604-E4 5240-4	195.50 325.00	CON CON	B.P.S.W B.P.S.W	16-MO 16-MO 24-O	Yes Yes Yes	12EE 12&12EE	10 60	125AC-DC 125AC-DC 250AC	Yes Yes	1	CR CR CR	No No	Yes Yes	8x8 8x8 6x8	15:1 90:18:1	Yes Yes	No No	456 456	$\frac{\overline{2}}{2}$
307-P5 309-P5	157.50 173.50	CON PCM PCM	B.P.S B.P.S	7-OM 9-MO	No Yes	SEE SEE	41/2 41/2	65AC 75AC	No No	1 1	CR CR	No No	No No	6x7 8x8	15:1 15:1	Yes Yes	No No	456 456	2 2 2 2 2 2
803-P5 903-P5	166.50 182.50	PCM PCM	B.P ₁ ,S B.P ₁ ,S	8-OM* 9-OM	No Yes	SEE SEE	3 5	40AC-DC 90AC-DC	No No	1	CR CR CR	No No	No	6x7 8x8	15:1 15:1	Yes Yes	No No	456 456	
3012-P6 3012-P6A	212.50 255.00	PCM PCA	B.P.S B.P.S	12-MO 12-MO	Yes Yes	8EE 8EE	10 10	100AC 100AC	No No	1	CR CR	No No	No No No	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	2 2 2 2 2 2
3016-P6 3016-P6A	245.50 287.50	PCM PCA	B.P.S B.P.S	16-MO 16-MO	Yes Yes	12EE 12EE	15	130AC 130AC	Yes Yes	î 1.	CR	No No	Yes Yes	8x8 8x8	15:1 15:1	Yes Yes	No	456 456	
1203-P6 1203-P6A	221.50 263,50	PCM PCA	B.P.S B.P.S	12-OM 12-OM	Yes Yes	12EE 12EE	10 10	100AC-DC 100AC-DC	No No	î 1	CR	No No	No No	8x8 8x8	15:1 15:1	Yes Yes	No No No	456 456	2 2 2 2 2 2
1603-P6 1603-P6A	256.50 295.50	PCM PCA	B.P.S B.P.S	16-MO 16-MO	Yes Yes	12EE 12EE	i0 10	125AC-DC 125AC-DC	Yes Yes	i 1	CR CR CR	No No	Yes Yes	8x8 8x8	15:1 15:1	Yes Yes	No No	456 456	
Challenger 1 Challenger 2	25.00 29.25	T	B B.S	NS NS	No	5EE 5EE	2 2	40AC-DC 40AC-DC	No No	8	No No	No No	No No	4x4½ 4x1½	1:1 5:1	Yes Yes	No No	456 456	10 10
Telephone dial 12-inch automa	tuning av	ailable for a	most models	-addition:	al list. Se	5.00.			- / -					-/3					
Halson Radio							•												
T6 T10	NS NS	FT FT	B	5-G* 5-G*		5EE 5EE	1	40AC-DC 40AC-DC 40AC-DC 45AC-DC 45AC-DC	No No	000	No No	No No	No No	4 5x4	1:1 1:1	No No	No No No	TRF	
T11 161	NS NS NS	FT	B	6-G* 5-GO* 6-GO*		5EE 5EE	1 2 1/2	40AC-DC 45AC-DC	No No	0	CR No	No No	No No	5x4 8x334	2:2 5:1	No No	No	TRF 456	
162 25	NS	FT	B.Sı	6-GO* 6-G* 5-G	No	5EE 5EE	2½ 1 2	50AC-DC	No No	0	CR No	No No	No No	8x3 34	5:1 12:1 12:1	No Yes	No	456 456	
35 102	NS NS NS NS	FT FT	B,P ₁ B,S	6-GO*	No No	5½EE 6EE	2 2.7 2.7	45AC 45AC-DC 45AC-DC	No No	1	No No	No No	No No	7x6 7x6	12:1	Yes Yes	No No	456 456	
103		FT	B.S B.S	7-GO* 6-GM	No No	6EE 6EE	3	55AC	No No	1	CR No	No No	No No	7x6 7x6	12:1 12:1	Yes Yes	No No	456 456	
106 412 612	NS NS	FT	B.P.S	7 GM 7-GO*	No No	6EE 8EE	3 2.7 7	55AC 50AC-DC	No No	1	CR CR CR CR	No No	No No	7x6 7x6	12:1 12:1 -	Yes Yes	No No	456 456	
612 1200	NS NS	FT VT	B,P,S,W	8-GM 12-M*	No Yes	8EE 10EE	7 5	65AC 80AC-DC	No No	1	CR	No No	No No	7x6 8x6	12:1 88:16:1	Yes	No No	456 456	
Howard Radio	Co., 173 \$16.95	5 Belmont FT	Ave., Chicag	30, III.—"I 5-G*	loward'	5EE	11/2	AC-DC	No	0	No	No	No	4	6:1	Yes	No	465	
200 225 250 275	22.95 29.95	FT FT	B,S ₁ B,S ₁	5-G	No No	51/2EE 51/2EE	11/2 21/2 21/2 21/2	45AC 45AC	No No	0	No No No	No No	No No	3x514 3x514	6:1 6:1	Yes Yes	No No	465 465	
275	34.95	FT	B,S ₁	5-G 6-G	No	6EE	21/2	50AC	No	No	CR	No	No	3x5½	6:1	Yes	No	465	
30				,		INDEX	70.00	DES ON	0.465	20					RADIC	TOF	\ A \ V	11111	1027

DETAILED BUYING GUIDE OF ALL AMERICAN RECEIVERS

Model No.	List price	Cab- inet style	Wave- bands	No. of tubes	S. W. R. F. amp.	Spkr. size type	audio	Power Supply watts			ual	Auto- matic tun- ing		D Size	ial Ratio		Acous- tical devices	I.F. F Peak tu	ea- ures
Howard Rad 300 368 318 400 425 Internationa	44.95 49.95 69.95 89.95 124.95	FT FT CON CON CON	B.P.S B.P.S B.P.S B.P.S B.P.S	7-GM 8-MG 10-MG 12-MG 14-OM	No Yes Yes Yes Yes	6EE 6EE 10EE 12EE 14EE	414 414 9 12	50AC 70AC 90AC 95AC 116AC	No No No No Yes	No 1 1 1 1	CR CR CR CR	No No No No No	No No No No	3x51/2 3x51/2 3x51/2 5x71/2 5x71/2	6:1 6:1 6:1 16:1 16:1	Yes Yes Yes Yes Yes	No No No No No	465 465 465 465 465	
40 K41-42-43 K150-151 K25 to 28 K10 to 16	\$ 10.00 13.50 22.50 29.50 29.50	T T T T	B B B B B,P	3-G 3-MO 5-MO* 6-G* 6-G*	No	5-Mag 5EE 5EE 5EE 5EE	NS NS NS NS NS	40AC-DC 40AC-DC 40AC-DC 40AC-DC 50AC	No No No No No	0 0 0 1	No No No No No	No No No No No	No No No No	NS NS NS 534 2x31/2	NS NS 6:1 6:1 NS	No No Yes Yes Yes	No No No No No	TRF TRF 448 448 448	10 10 10 10
K1019 K1129 K634 Internationa	19.95 29.95 34.95	FT FT T	B,S ₁ B,S ₁ B,S	10-G*** 11-G*** 6-G	No No No	51/EE 51/EE 6EE	3322	40AC-DC 90AC 90AC 40AC	No No No	0 0 1 1	No No No No	No No No No	No No No	3½x2½ 4x4 4x4 4¾x4¾	NS 6:1 6:1 6:1	NS Yes Yes Yes	No No No No	448 448 448 448	
K739 K1149 K1159 649X Philco Radio	39.95 49.95 59.95 55.00	CON CON ACR	B,P,S B,S ₁ B,S ₁ B,S	7-GM* 11-G*** 11-G*** 6-GO Sts., Phila	No No No No telphia, F	6EE 8EE 8EE 6EE	4 3 3 4	50AC 90AC 90AC 40AC	No No No No	1 1 1	No No No No	No No No No	No No No No	734x44 734x44 734x44 434x434	14:1 6:1 6:1 6	Yes Yes Yes Yes	No No No Yes	148 448 448 448	
38-690 38-116 38-1 38-2 38-3	\$395.00 200.00 175.00 159.50 129.50	CON CON CON CON CON	B,P,S B,P,S B,P,S B,P,S B,P,S	20-0 15-0 12-0 11-0 9-0	Yes Yes Yes Yes Yes	NS NS NS NS NS	15 15 10 7 5	275AC 165AC 150AC 140AC 110AC	Yes Yes No No No	2 2 1 1	No No No No No	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	93/8 93/8 93/8 93/8	40:8:1 40:8:1 40:8:1 40:8:1 40:8:1	Yes Yes Yes Yes Yes	Yes Yes No No No	470 470 470 470 470	
38-4 38-5 38-5 38-7 38-7	100.00 89.95 79.95 79.95 65.00	CON CON VT CON FT	BS BS BS BS	8-0 8-0 8-0 6-0 6-0	Yes Yes Yes No No	NS NS NS NS	5 5 5 3 3	95AC 90AC 90AC 70AC 70AC	No No No No	1 1 1 1	No ST ST No No	Yes No No Yes Yes	No No No No No	434 6 6 434 434	15:2:1 40:8:1 40:8:1 15:2:1 15:2:1	Yes Yes Yes Yes Yes	No No No No No	470 470 470 470 470	
38-7 38-8 38-9 38-9 38-10	65.00 75.00 65.00 49.95 55.00	ACR CON CON FT CON	BS BS BS BS	6-0 6-0 6-0 5-0	No No No No	NS NS NS NS	3 3 3 3	70AC 65AC 65AC 65AC 60AC	No No No No No	1 1 1 1	No ST No No No	Yes No No No No	No No No No No	4% 6 6 6 6	15:2:1 40:8:1 40:8:1 40:8:1 40:8:1	Yes Yes Yes Yes Yes	No No No No No	470 470 470 470 470 470	
38-10 38-12 38-12 38-12 38-14	39.95 22.50 25.00 27.50 29.95	FT FT FT FT	B.S. B. B. B.S.	5 G 5 G 5 G 5 G 5 G	No	NS NS NS NS NS	3 2 2 2 1	60AC 40AC 40AC 40AC 55AC-DC	No No No No	0 0 0 0	No No No No No	No No No No	No No No No	6 3x4 3x4 3x4 3x4	40:8:1 4:1 4:1 4:1 12:1	Yes Yes Yes Yes Yes	No No No No No	170 170 170 170 470 470	
38-14 38-15 38-15 38-22 38-22	39.95 29.95 NS 85.00 69.95	ACR FT ACR CON FT ACR	B.S. B.S. B.S. B.S.	5-G 5-G 6-0 6-0	No No No No	NS NS NS NS	2 2 3½ 3½	55AC-DC 40AC 40AC 55AC-DC 55AC-DC	No No No No	0 0 0 1 1	No No No No	No No No Yes Yes	No No No No	3x4 3x4 3x4 4 ³ 4 4 ³ 4	12:1 12:1 12:1 15:2:1 15:2:1	Yes Yes Yes Yes Yes	No No No No No	470 470 470 470 470	
38-22 38-23 38-23 38-23 38-60	79.95 69.95 49.95 39.95	CON CON FT VT	B.S B.S B.S B.S B.S ₁	6-0 6-0 6-0 5-0 5-0	No No No No	NS NS NS NS NS	31/2 31/2 31/2 31/2 3	55AC-DC 55AC-DC 55AC-DC 55AC-DC 60AC	No No No No	1 1 1 1 1	No N	Yes No No No No	No No No No No	434 6 6 6 51/2	15:2:1 40:8:1 40:8:1 40:8:1 10:1	Yes Yes Yes Yes Yes	No No No No	470 470 470 470 470	
38-60 38-62 38-62 38-89 38-89 38-93	29.95 39.95 45.00 59.95 22.95	CON VT CON VT	B,S ₁ B,P ₁ B,P ₁ B,P ₁ B,P ₁	5-0 5-0 6-0 6-0 5-0	No No Yes Yes	NS NS NS NS	3 3 3 3 2	60AC 60AC 60AC 65AC	No No No No	0 0 1 1	No No No No	No No No No	No No No No	51/2 51/2 51/2 51/2 31/2	10:1 4:1 4:1 10:1 10:1	Yes Yes Yes Yes Yes	No No No No	470 470 470 470 470	
38-610 38-610 38-620 38-630	49.95 59.95 59.95 79.95	VT CON FT CON	B,P,S B,P,S B,P,S	5-0 5-0 6-0 6-0	No No Yes Yes	NS NS NS NS	3 3 3 3	50AC 60AC 60AC 65AC 65AC	No No No No No	1 1 1 1	No No No ST	No No No No No	No No No No No	31/2 6 6 6 6	5:1 40:8:1 40:8:1 40:8:1 40:8:1	Yes Yes Yes Yes Yes	No No No No No	470 470 470 470 470 470	
38-665 38-665 38-2620 38-2630 38-2650	99.50 129.50 59.95 79.95 89.95	VT CON FT CON VT	B.P.S.U B.P.S.U B.S.W B.S.W B.P.S.W	9-0 9-0 6-0 6-0 8-0	Yes Yes Yes Yes Yes	NS NS NS NS	7 3 3 7	105AC 105AC 65AC 65AC 110AC	No No No No No	1 1 1 1	ST ST No ST ST	No No No No No	No No No No	71/2 71/2 6 6	40:8:1 40:8:1 40:8:1 40:8:1 40:8:1	Yes Yes Yes Yes Yes	No No No No No	470 470 470 470 470	
38-2650 38-2670 38-2670 Trav-Ler Rad				8-0 11-0 11-0 Van Buren	Yes Yes Yes St., Chica	., .	7 10 10 av-Ler"	110AC 130AC 130AC	No No No	1 1	ST ST ST	No No No	No No No	6 71/2 71/2	40:8:1 40:8:1 40:8:1	Yes Yes Yes	No No No	470 470 470	
440 445 450 452 462	NS NS NS NS NS	FT FT FT FT	B B,P B,P B,P	4-G* 4-G* 5-G* 5-G* 5-G*		5EE 5EE 5EE 5EE	.7 .7 1 1 2	40AC-DC 40AC-DC 40AC-DC 40AC-DC 40AC-DC	No No No No No	0000	No No No No No No	No No No No No	No No No No No	NS NS NS NS NS	NS NS NS NS NS	No No No No No	No No No No	TRF TRF TRF TRF TRF	
500 526 626 527 627	\$17.75 21.75 22.75 24.95 26.95	FT FT FT FT	B B.P ₁ B.P ₁ B.P ₁	5-G 5-G 6-G* 5-G* 6-G*	No No No No	5-EE 6EE 5EE 6EE 5EE	1 34 2 1/2 1 2 1/2 1	33AC 45AC 40AC-DC 45AC 40AC-DC	No No No No No	O 1 1 1	No No No No	No No TD TD	No No No No	5 5 5 5 5	NS NS NS NS NS	Yes Yes Yes Yes Yes	No No No No No	456 456 456 456 456	
630 730 830 136 137	35.95 35.95 47.50 49.95 49.95	FT FT CON CON	B,P,S B,P,S B,P,S B,P,S B,P,S	6-OG 7-OG* 8-OG 6-OG 7-OG*	No No No No No	6EE 6EE 8EE 10EE 10EE	31/4 2.2 9 31/4 2.2	55AC 40AC-DC 65AC 55AC 45AC-DC	No No No No No	1 1 1 1	No No No No No	TD TD TD TD TD	No No No No No	6 7 6 6	NS NS NS NS NS	Yes Yes Yes Yes Yes	No No No No	456 446 456 456 456	
138 110 112 115	69.95 91.50 102.50 137.50	CON CON CON CON	B,P,S B,P,S B,P,S B,P,S	8-OG 10-OG 12-O 15-O	No Yes Yes Yes	11EE 12EE 12EE 15EE	9 13 16 30	65AC 80AC 100AC 150AC	No Yes Yes Yes	1 1 1	No CR CR CR	TD TD TD TD	No No No No	7 9 9 9	NS NS NS NS	Yes Yes Yes Yes	No No No No	456 456 456 456	

NOTES:

NS-Data not supplied.

CABINET STYLE

ACR-Arm chair radio

ACH—Arm chair radio
CH—Chassis only
CON—Console
FT—Flat table
F—Furniture design
PC—Phonograph radio combination

PCA—Phonograph radio combination with auto-matic record changer PCM—Phonograph radio combination—manual change of records

P0-Portable

T—Table
VI—Vertical table

VISUAL TUNING INDICATOR

CR—Cathode ray CT—Color tuning ST-Shadow tuning

POWER SUPPLY

AC-Alternating current AC-DC-Either alternating or direct current

WAVEBANDS

B-Broadcast (approx. 540-1700KC) b—Broadcast (approx. 1700-5000KC)
PI—Police (approx. 1600-3500KC)
S—Shortware (approx. 5000-18,000)
SI—Medium shortware (approx. 2500-7000) U-Ultra shortwave (ahove 25.000KC)
W-Weather band (approx. 150-350KC)

...Including hallast tube G-Glass (old style)

0—Octal glass M—Metal

GM-Mainly glass, some metal

GO—Mainly glass, some octal glass MG—Mainly metal, some glass MO—Mainly metal, some octal glass OG-Mainly octal glass, some glass OM-Mainly octal glass, some metal

AUTOMATIC TUNING

EPB-Electric push hutton PB—Push-hutton
TD—Telephone dial

FEATURES

1. Remote control

2. Tone compensated volume control

3. Overload control

4. Dual audio channel

5. Triple tuned I.F. transformers

6. I.F. wavetrap

7. Iron-core I.F. coils

8. Temperature compensation of tuned circuits

9. Preselector on broadcast hand

10. Cabinet in colors

11. Band indicating dial.

12. Phono connection terminals or jack

13. Infinite impedance detector

14. Quiet A.V.C.

SPEAKERS

SPEAKERS

EE—Electrically excited field
Mag—Magnetic
PM—I'ermanent magnet dynamic

TO MOVE INTERCOMMUNICATORS

- industrial-plant and business opportunities

- restaurants, movies, garages, offices, homes

★ Several hundred thousand intercommunicator sets have now been built and moved into the hands of distributors and dealers. Many of these sets have gone on into use in the homes and places-of-business of ultimate customers, and there are giving good service. They have proven themselves capable of supplying a real need in those situations where they have been correctly used. Owners are satisfied and delighted with the new convenience of these intercommunicating devices, which save time, effort, and money.

Must go out after

But on the other hand a number of dealers and distributors report that the new intercommunicating lines are "slower to move" than was expected. Dealers make up window displays of these new instruments, labeling them plainly. But still people come in to ask about "those pretty little radio sets in your window"-and then go out disappointed and in no mood to be sold intercommunicators when the real purpose of the devices is explaiued. Big window displays have heen set up, in gorgeous colors, but still passersby are not always moved to come in and order, as hoped.

In those places where intercommunicators have been sold readily, some very elementary principles have invariably been applied, and they have worked successfully.

First, intercommunicators have been put in the hands of special salesmen, and these men have been sent out after customers.

Tests have shown that almost any fairly-experienced, sales-minded male can sell intercommunicators. And can continue to sell successfully in this field. It is not a flash product, to be sold only to a few of the salesman's personal friends, and then dropped.

Instead, the salesman's effectiveness increases with his experience. And he sells his tenth and twentieth outfits more easily than he sold his first to his most obvious prospect.

Second, the best opportunities for intercommunicator sales are beginning to clarify. Industrial plants and business places—as well as homes—are coming to the front.

It is true that large householdfurnishing stores in New York have sold hundreds of intercommunicators to their regular customers. In general these sets have gone to households in the upper-income brackets for the butler to call the housekeeper or chauffeur, etc. Some wealthy purchasers have bought sets merely as toys, to experiment and play with. Then there have been young couples who wanted sets to "listen in" on the sleeping infant in the nursery.

But in industrial plants intercommunicators have supplied long-felt needs for superintendents to talk to foremen-for the office to talk to the shipping platform. A man who knows his way around such a local industrial plant, has of course the best chance of selling this intercommunicator equipment. The regular supplyhouse salesmen have an "in" in this respect—but so has the radio dealer who lives in the community and knows most of the plant officials and foremen by their first names. So here it is a matter either of "going direct" -or joining forces with some salesman who already is contacting the industrial prospects.

Restaurants, movies

Restaurants and lunch counters offer another primary market for intercommunicating sets. For the counter attendant to talk to the kitchen, such equipment is a "natural." Many sales have been made to restaurants but the difficulty here often is that the restaurant owner is "mortgaged to the hilt" to his restaurant-supply house and cannot take on any cash outlay. But if the sale of the communicator is negotiated through the restaurant-supply salesman and the amount added to the bill, the purchase is assured.

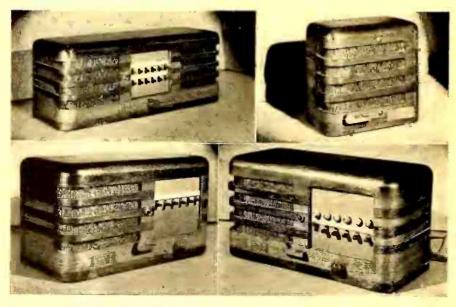
Moving-picture theaters buy sets as "hold-up" alarms. Putting one set in the ticket-seller's booth and the other in the manager's office or projection booth, they keep all parties in close touch. The ticket girl need only scream softly to bring help in case of a hold-up. Banks are using sets in the same way for protection against bandits. And police chiefs have bought pairs of sets to listen-in on prisoners and suspects locked up in their cells.

RADIOS, REFRIG'S, AUTOS ALL UP

★ U. S. excise taxes paid on radio sets sold by manufacturers during May, 1937, totaled \$329,074, compared with \$220,750 during May a year ago, an increase of 50 per cent.

Refrigerator excise taxes for the same months went from \$846,609 in May, 1936, to \$2,219,202 for May, 1937, an increase of over 150 per cent.

Automobile sales for the first five months of 1937 were 13 per cent above 1936, and 39 per cent above 1935.



New revolutionary Teletalk developments by Webster Electric, Racine, Wis., permit free and natural conversation without "talk-listen" switches. Upper left new two-way Teletalk has capacity of 24 stations, permitting conferences of up to 10 people. At right is speaker microphone. Pressing switch operates buzzer in unit below, while indicator button jumps forward, identifying call. Lower left shows de luxe selective system with pilot-light volume control.

You Can OUTSELL the Field



Kreisler Master Unit

WIRELESS AND WIRED SYSTEMS

Kreisler is the only company making both wire-less and wired types of equipment, enabling you to give your customer the right type of system for his particular needs. Both systems give direct and instant two-way communication with perfect voice reproduction.

No hum. No noise. No batteries. Just plug into electric light outlet. No talking through switch-board. No automatic telephone. Can be equipped with amplifiers for large rooms or extra noisy locations. For privacy of reception, sets can be installed with earphone automatically cutting out

 AN EXCLUSIVE feature in the Kreisler all master system is that two-way conversation may be carried on without the use of a talk and listen switch.

KREISLER WIRED SYSTEMS 2 to 18 Stations

Adaptable for any requirement, from the simplest two-station system consisting of one master and one outlying station, up to an 18-station system in which the master may converse with any or all of the others. Any intermediate sized installation can readily be made.

In adapting Kreisler equipment from 2 up to 18 stations, the customer may have either of several types of systems, such as:

Communication between master station and outlying stations, in which any outlying station may call the master but the master is the only one that can call selected outlying stations.

Cross selective system enabling any outlying station to call any other outlying station. Up to 9 separate and distinct conversations between different points can be made at the same time and without interference.

3—Wireless—Two-point, two-way communica-tion without the use of wires. Perfect for home, executive or doctor requiring only two-point communications.



Kreisler Remote Unit

with

INTER-COMMUNICATING SYSTEMS

because in addition to having the finest types of instruments

KREISLER GIVES YOU 3 ABSOLUTE ESSENTIALS OF SUCCESS IN THIS FIELD:

- Adaptable to all requirements—WIRED up to 18 stations. WIRELESS—two point two-way communication.
- No quotas to make: no territories to be taken away: substantial discounts.
- Actual sales help by experienced Kreisler mer-3. chandising men.

YES, there IS a tremendous market for inter-communicating equipment. So, let us all act sensibly now.

This market is not besieging the dealers nor clamoring for equipment. Nevertheless it can be PROFITABLY SOLD if you have the right equipment and the right methods.

Put it down as a fact: Inter-communicating equipment can be either a natural profit-maker for you, or merely a vision of profit. It depends on whether the line you handle has the all-important requirements of adaptability, superior performance and easy selling.

Anyone can visualize the great possibilities of this field but the important thing is for you—jobber or dealer—to realize and capitalize those possibilities.

Kreisler is not a new-comer. It offers you unquestioned advantages such as can come only from a combined background of technical development and merchandising experience.

With Kreisler equipment you can sell PROPERLY. You can meet requirements that are met by no other system. You can OUT. SELL the field. The full story is waiting for you. Wire or write for COMPLETE PROPOSITION AT ONCE.

Manufactured under license from Electrical Research Products, Inc., U. S. Patents of American Telephone & Telegraph Co. and Western Electric Co., Inc.

KREISLER COMMUNICATIONS, INC.

.250 WEST 57th STREET

NEW YORK, N. Y.

Telephone, COlumbus 5-1556

Everything in office, factory or home communications

THE "RECORD" SEASON

New phonograph-radio models improve disc sales

* RIGHT KIND of a boost for the record business was noticed as new radio lines were introduced.

Survey of the new receivers already offered by leading manufacturers reveals that there are 95 different models of phonograph-radio combinations on the market. Features, styles and prices are so attractive that the record-playing activity sees a definite bounce ahead.

The new combinations are made by 18 different companies and vary in price from \$49.50 to \$2,850. The average list price is about \$524, although approximately 65 per cent of the models are marked below \$200.

Almost half of the new instruments have automatic record changers. Cabinet styles vary from smart luggage types for portables to elaborate consoles in period designs.

These combinations are destined to be promoted, demonstrated and sold; the record dealer has a new trend in his favor.

PHONOGRAPHS COMING STRONG— PRICES UP

* The American public is turning back to phonographs and combination sets. Phonograph sales in 1936 were double those for 1932, though still far below 1929.

Record sales are reported as: 1929, 30 million; 1931, 2 million; 1936, 7 million; and 1937, 15 million.

Average phonograph combination price for 1936 was \$150, but for 1937 it has come up to \$200.

Meanwhile the de luxe market plows ahead. One manufacturer, with combinations priced at \$1,050 to \$2,750, is reported to have sold 3,000 of these high priced automatics in 1936—with sales increasing this year.

LIFE OF THE PARTY

* Almost any person involved in summer social affairs wishes to be widely regarded as a successful host or an exceptional guest. That's why they're all prospects for portable automatic phonograph-radio combinations, according to B. Hills, of Marconiphone, New York, N. Y.

Whether it's on a hotel porch, a beach, at a lodge or cottage, a person



Illustrating, with Marconiphone, summer appeal of portable combinations.

with a good instrument and an interesting supply of records is likely to be "the life of the party." College folk, or any other group sufficiently interested in special types of music as to want a batch of records along, are among the chief prospects for the season. Most any summer party will enjoy a half-hour of appropriate music, played to order.

Mr. Hills suggests that the instruments may be played in the dealer's window atop a patch of artificial grass, for an outdoor effect. It has also been found a good idea to keep the record or the record changer in motion in the window; the working device will attract large groups of passers-by.

HOW TO DEMONSTRATE A PHONOGRAPH

* See that the person in charge of your phonograph-combination and record sales knows how to make a pleasing demonstration, urges John Krause of Radiobar.

Don't drop the pick-up on the record so that the music comes suddenly blasting in. That is repugnant to any music lover and may spoil a sale.

When starting a demonstration, advises Mr. Krause, first turn the volume-control way down. Then start the record, place the pick-up in position, and slowly increase the volume until it comes up to the point which best pleases the customer.

This kind of demonstration will sustain the customer's musical mood—and promote sales.

TOURISTS AS BUYERS

* Current record-selling device used by the Vesey Music Shop, New York City, appeals to person who plans to go abroad this summer. Shop has an assortment of records done in foreign languages, and suggests to prospective travelers that the discs represent one way to get familiar with the lingo of various countries.

Idea clicks because such travelers usually wish to make all possible plans to make their journey a success. Also, they're generally people who have ready money.

RADIO RASCALITY

* Chased by district attorneys, radio sets are being made and marketed under misleading trade names.

Recently in New York State a group of radio manufacturers, legitimate and injured, pooled their complaints and let the District Attorney's office know about them. Officers "shopped" the suspected districts and made 21 arrests, uncovering a mass of rank abuses. Manufacturers were represented by Bernard Phillips, of the New York law firm of Scandrett, Tuttle & Chalaire.

Interviewed by Radio Today, Mr. Phillips said that machinery exists in other states for similar action, and that the drive against counterfeit midgets will be nationwide. Investigation shows that "loft" manufacturers are selling not only to unprincipled dealers, but to unsuspecting radio buyers in furniture and department stores. The sets are superficially attractive because of low price.

Radio racketeering is shifty indeed. Once ordered to "cease and desist" by the Federal Trade Commission, firms incorporate under a new name so that no second offense can be mentioned. Finding it risky to mis-use the leading names of the radio industry, they have now turned to well-known names, borrowing prestige from other fields.

Manufacturers who specialize in legitimate low-priced sets will doubt-less find their sales totals hiked, as frauds are squeezed from the market and the public gets the real thing from honest dealers. Part of the campaign is planned action against makers of phony name-plates, so that the clean-up promises to be mighty effective.

* Robert B. Bolles is the new advertising manager of the North Tonawanda, N. Y., division of the Rudolph Wurlitzer Co. His offices are at the Wurlitzer factory in that city.



The PORT (MATIC

Sweeping the world in popularity

Patented construction will play and 8-tube superheterodyne with cathode change 8 records of any standard ray tuning eye. make automatically.

Felt-lined receiving tray stores rec- current. Short wave reception. ords and protects them.

Beautiful tone. Remarkable clarity, Good territories available. volume and faithfulness.

Built-in Aerial. AC-DC, foreign Luxurious cowhide leather case.

or wire for details now.

CORPORATION The PORT-O-MATIC 1013 MADISON AVENUE

NEW YORK



In PORTABLE **AUTOMATIC RADIO PHONOGRAPHS**

CUSTOM BUILT far a clientele who demands the best, and for dealers wha welcome a dependabe, splendid, prafit producing instrument,



- Extra sensitive, superhetero-dyne radio, AC DC, employ-ing EIGHT metal and glass tubes
- Automatic Record Changer changes both 10-inch and 12inch records.
- Eight-inch dynamic speaker allows undistorted reproduction.

To retail at

fers world - wide operation — 110-220-240 volts:

Write for complete descriptive Folder and Price List.

RCONIPHONE MADISON AVE., NEW YORK

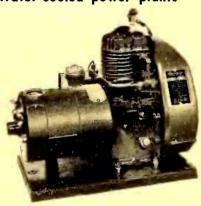


NEW THINGS FROM THE MANUFACTURERS

Supreme set tester

★ Compact AC-DC multi-meter with 20 ranges and functions available from a single selector switch. DC, AC and output volts 0/7/140/350/1400. DC currents of 0/7/35/140 mils. Resistance scales, 0/200/2000, 20 M ohms and 0/2/20 megs with internal power supply. 110 AC operation. Weight only 9 pounds. Model 541. Net \$26.95. Supreme Instruments Corp., Greenwood, Miss.—Raddo Today.

Water-cooled power plants



* Complete line of AC and DC generating plants powered by water-cooled gas engine. Designed for marine applications, but can be supplied with radiator. Ratings of 500, 1000, 2000, 3000 watts. Manual or self-starting from remote control. Constant voltage characteristic under varying loads. Streamlined design. D. W. Onan & Sons, 53 Royalston Ave., Minneapolis, Minn.—Radio Today—see also advt. p. 65.

Clough-Brengle signal generator



★ Test oscillator with range 100 to 30,000 KC. in five bands. Accuracy ½ per cent. Direct reading etched silver finish dial with 10-1 vernier. R.F. ironcore coils—air trimmer on each band. Voltage outputs up to 100,000 microvolts. Internal 400 cycle modulation—audio voltage also available for audio tests. R.F. circuit enclosed in separate copper shielded box. Model 110. Clough-Brengle Co., 2815 W. 19th St., Chicago, Ill.—RADIO TODAY.

Metalex exponential horn

★ Spun steel exponential horns for sound systems. Coated with special "ex" material, which provides extreme sound deadening and eliminates reso-



nances. Available in multi-purpose model with 14-inch bell, which lists at \$21. Stadium junior model (illustrated) with 20-inch bell, \$28. Senior model with 25-inch bell for \$60. Actual output at 100 cycles with senior model nearly 10 times as great as with ordinary baffle. Wright-DeCoster, Inc., St. Paul, Minn.—Radio Today—see also advt. p. 70.

U. S. E. Call-Phone



* Personal call phone equipped with headphone for privacy. Raising headphone cuts out speaker. Operates with but a single lever—no complicated switching. Other types available for paging, switchboard use, and standard model. United Sound Engineering Co., St. Paul, Minn.—Radio Today.

Operadio sound system

★ 14-26 watt portable unit with electronic mixer for 2 mikes and one phono input. Beam power tubes. Vel-

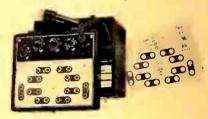


otron microphone with banquet stand, 2 x 10-inch dynamic speakers and tone control. 25-foot speaker cable. Model 117. Operadio Mfg. Co., St. Charles, Ill.—RADIO TODAY—see also advt. p. 49.

Paramount paper tubes

★ Paper tubes for transformers, coils, and other electrical and radio uses, are made in some 500 different types and models by the Paramount Paper Tube Company, 2035 West Charleston Street, Chicago, Ill., of which R. M. Lander is treasurer and general manager. The paper used is special non-absorptive material, and the spiral-wrapped tubes come in square, rectangular and round forms, in a wide variety of sizes.—Radio Today

Anal-o-scope free point tester



★ Plug and cable type analyzer for use with any volt-ohm-milliammeter. Cards placed over panel show internal wiring of tube and where to make measurements. Avoids need of complicated tube charts and reduces possibility of errors. Both voltage and currents may be measured on the analoscope. Approximately 100 cards supplied covering practically all types of tubes now in use. Net \$17.50. Simpson Electric Co., 5216 W. Kinzie St., Chicago, Ill.—Radio Today.

Oscillograph kit



★ Cathode ray oscillograph kit, using 1-inch tube. Has variable saw tooth sweep circuit, vertical amplifier, beam centering control, sweep amplitude control, self-locking synchronizing circuit. Modernistic steel cabinet. Transformer Corp. of America, 69 Wooster St., New York, N. Y.—Radio Today.

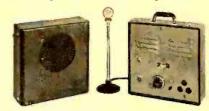
Precision multi-meter

★ Due to a printer's error, the Precision model 840 AC-DC multi-meter was incorrectly priced in the item on page 94 of the June Radio Today. Correct price is \$19.95.



NEW THINGS

Remler portable sound system



★ 10-watt sound system using metal tubes and push-pull beam power output stage. 10-inch high fidelity speaker in baffle case with cables and plugs. Crystal mike. Model APS-177. List with banquet stand \$120; with floor stand \$122.50. Remler Co., Ltd., 2101 Bryant St., San Francisco, Calif. —RADIO TODAY—see also advt. p. 61.

Etched-foil electrolytics with low power factor

★ Dry electrolytic condensers of the etched-foil type with power factor as low as plain foil type. Type JR and KR condensers have high capacity in small space due to etching but feature power factor that is par with equivalent plain foil types. Cornell-Dubilier Corp., Plainfield, N. J.—Radio Today.

Vitreous type resistor



* Fixed resistor with porcelain core, copper terminals tin-dipped, vitreous enamel covering, and evenness of windings which prevents "hot spots." Terminals mechanically locked and brazed to resistance wire. Mounting brackets hold units in place and units easily demounted. Value stamped on aluminum band. Ohmite Mfg. Co., 4835 W. Flournoy St., Chicago, Ill.—Radio Todax.

DuMont resonoscope



★ Cathode ray type device for determining whether or not a musical instrument or voice is on pitch. Self-contained and portable—fully AC operated. Oscilloscope permits observation of wave form, 12 master tuning forks provide source of standard tones, any desired one selected by switch. Overtones use for frequencies outside range of forks. Device simple to operate and

can be used by anyone. Allen B. Du-Mont Lab., Upper Montclair, N. J.— RADIO TODAY.

Philco utility aerial

* Window type antenna consisting of a telescopic rod of stainless steel. Angle of rod can be adjusted to suit requirements of installation. Flat flexible lead-in strip passes under window. No ground connection required. Mounts on window sill with four wood screws. Length about 6 feet. Part No. 42-2450—list \$5. Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.—Radio Today.

Transmitter kits



* Amateur type transmitter kits. Units available which permit starting out with 80 watts and plugging in additional completely self-contained units ending up with a 400 watt phone transmitter. The oscillator kit uses a 6L6 type crystal oscillator. Utah Radio Products Co., 820 Orleans St., Chicago, Ill.—Radio Today.

School sound system



* Centralized sound system, designed for use in schools. Takes care of as many as 30 classrooms. Has superhet radio tuner, automatic phonograph, amplifier, with 60 watt output. Talk-back circuit from individual classrooms. Uses standard components, but is built up according to desired specifications. Wholesale Radio Service Co., 100 Sixth Ave., New York, N. Y.—RADIO TODAY—see also advt. p. 60.

Magnetic velocity microphone

★ Desk or pulpit type microphone with velocity operated element. Fins provide pick-up through a wide angle. allowing freedom of motion on the part of the orator. Can be placed either

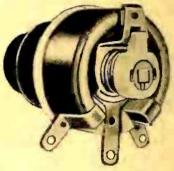


at side or in front of speaker. Response from 50 to 12,000 cycles and output of —65 DB. Available in high and low impedance types. Model OR—list \$47 and \$49, respectively. Bruno Labs., 30 W. 15th St., New York, N. Y. —RADIO TODAY.

Variable heat control for soldering iron

* Soldering iron stand and heat control. Has switch which cuts in resistor and allows iron to stay warm when not in use. Keeps the tip of iron properly tinned. Iron heats immediately when switch is flipped to the hot position. Use with any iron up to 150 watts—110 volts AC or DC. List \$3.50. Drake Electric Works, Inc., 3656 Lincoln Ave., Chicago, Ill.—RADIO TODAY.

Power rheostat

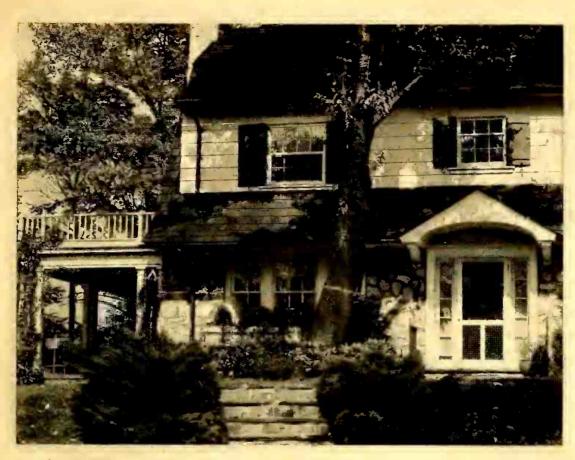


* Vitrohm rheostats of 30, 50, 100, 150 watt ratings. Resistance wire, having low temperature coefficient of resistivity, is wound toroidally around the core and coated with a vitreous enamel. Sizes 1½, 2¼, 3, and 4-inch diameters. Ward Leonard Electric Co., Mt. Vernon, N. Y.—Radio Today.

Pick-up with arm-rest



★ Zephyr crystal pick-up with locking arm rest which hold pick-up securely in position when off the record. There are no thumb screws or other adjustments—the pick-up is simply pressed down over the arm rest post and automatically locks in position. Arm is released when lifted from post. Pick-up list \$12. Arm rest—\$.50. Shure Bros., 225 W. Huron St., Chicago, Ill.—Radio Today—see also advt. p. 68.



Enter here for Sales

The passport to any home is dependable service—and that's where Sylvania tubes come in!

If you don't think radio tubes are important, try selling a few cheap, inferior "seconds," and see how quickly the echoes get back to you!

Good tubes are vital to your business. So why not sell tubes that guard your reputation for dependability...like Sylvanias? They'll open the door of many a home in your town—and they'll hold it open for you all the year 'round, whenever there are other, bigger-profit sales to be made.

Sylvania tubes won't let you down. They can't. Scores of manufacturing tests during production see to that. Why not get in touch with us, and see how we can help you? For complete sales and technical information, write to the Hygrade Sylvania Corporation, Emporium, Pa.

SYLVANIA

THE SET-TESTED RADIO TUBE

NEW THINGS

Loudspeaker housings

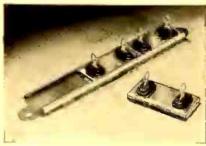
★ Complete line of steel housings for auto and public address loudspeakers. Bell and cylindrical types. Swivel mounting brackets available. Available in 8¾ and 7 9/16 inch overall sizes. Furnished with or without rear covers. Sundstrum Pressed Steel Co., 8030 S. Chicago Ave., Chicago, Ill.—RADIO TODAY.

Farm storage batteries



★ Battery designed especially for use with wind generator power plants. Capacities up to 881 ampere hours. Round stone jar gives increased strength and increases efficiency of cell. Water line indicator and hydrometer determine water level and state of charge. Covers sealed with soft sponge rubber make replacement of old elements easy. Jumbo Battery Mfrs., Ellsworth, Iowa—Radio Today.

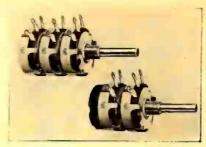
Sectional voltage dividers



★ Voltage divider that can be built to suit the application. Comprised of mounting base and resistor units. Each unit is a complete molded-seal metal-clad resistor with 2 terminals. Units slide into base. Adjacent terminals connect together to form a single voltage divider of the required value. Clarostat Mfg. Co., 285 N. 6th St., Brooklyn, N. Y.—Radio Today.

Multi-unit gang controls

★ Ganged volume controls in any desired combination, using as many units as desired, with or without switch. Individual sections electrically isolated and furnished in all curves and variations of standard and special type



C controls. Metallized coating bonded to moisture-proof bakelite base. Fivefinger phosphor bronze spring brush type contact. International Resistance Co., 401 N. Broad St., Philadelphia, Pa.—RADIO TODAY.

Phono record player

★ Phonograph attachment to provide record playing through any radio set. Fits beneath table model set or on top of console. Turntable attached to slide panel. (See picture on page 31). Crystal pick-up, volume control, speed control, 12-inch turntable. Available in AC and AC-DC models. Walnut case with hand-rubbed finish. Recoton Corp., 178 Prince St., New York, N. Y. —RADIO TODAY.

Electro-Acoustic sound system



★ Ten-watt high-gain amplifier with dual 8-inch Magnavox speakers. Carrying case houses amplifier, high-impedance microphone, stand, and connecting cables. Available without carrying cases for permanent installations. Model AP-922. Electro-Acoustic Products Co., 2131 Beuter Rd., Fort Wayne, Ind.—Radio Today—see also advt. p. 53.

Centralized sound system



★ Centralized system with 18-watt high-gain amplifier. All-wave radio, phonograph, and microphone channels. Dual speed turntable, program selector panel, monitor speaker, 10 remote station PM speakers, with inclined wall baffles. Volume level indicator, mixers. Net \$375. Talk-back feature available at additional price. Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—RADIO TODAY.

G-E radio outlet



* Radio antenna, ground, and electric power outlet for use in homes with concealed radio installations. Outlet has 2 terminals for antenna doublet leads, 1 terminal for ground. Power supply in lower half and shielded from antenna section. Special 3-prong plug used for antenna and ground—cannot be inserted into power outlets by mistake. General Electric Co., Bridgeport, Conn.—Radio Today.

Hickok volt-ohm-milliammeter



★ AC-DC type multi-meter with 350 microampere movement. Rotary switch eliminates jacks. AC and DC voltage range — 0/10/50/250/500/1000. .05/30/10M/Imeg/10meg resistance ranges. Current ranges of 0/1/5/50/500 mils DC. Accuracy within 2 per cent on all ranges. Engraved bakelite panel and steel case 7 x 4½ x 3¾ inches. 4-inch scale length and square meter. Model 4955-S. Hickok Electrical Instrument, 10514 Dupont Ave., Cleveland Ohio—RADIO TODAY.

Globe-Union storage batteries

★ Line of storage batteries with color-top to protect radios—minimizes possibility of wrong hook-up to set. Plainly marked for supplying 2 and 6-volts. Supplied with either radio or taper terminals. Available in 100 to 300 ampere-hour sizes. 2 and 6-volt types. Globe-Union, Inc., 900 E. Feefe Ave., Milwaukee, Wis.—RADIO TODAY.



14-26 Watt PORTABLE P. A. UNIT MODEL 117

2 Heavy Duty Speakers . . . Veletron Microphone with Banquet Stand . . . electronically mixes two microphones and phonograph . . . all coming complete in a three piece SINGLE carrying case . . . compact, easy to carry . . . beautiful.



Model 124-W 22-40 Watt Portable Unit

The buy of all Portable Units
...an outstanding value, a bargain if there ever was one. The HIGHEST powered quality unit you can obtain anywhere at SO LOW A PRICE, this is THE Unit you can't go wrong on.

PRICE—complete \$11700 with tubes

Amplifier alone, with \$4900 tubes.

(Standard jobbers' and dealers' discounts on above)

The Most COMPLETE Line of Intercommunicating Systems, P. A. EQUIPMENT, P. A. SPEAKERS and RADIO REPLACEMENT SPEAKERS THE MARKET AFFORDS. EASY TIME PAYMENT PLAN.

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

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MANUFACTURING COMPANY ST. CHARLES . . . ILLINOIS



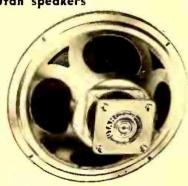
NEW THINGS

Portable P.A. system



★ 5-watt portable type sound system with frequency curve flat within 2 DB from 40 to 9,000 cycles. 11-inch electrodynamic speaker, double button mike mounted on a banquet type stand. Complete with all necessary cables and plug. Radolek Co., 601 W. Randolph St., Chicago, Ill.—RADIO TODAY—see also advt. p. 65.

Utah speakers



* New line of speakers, including 5, 6, 8, 12-inch sizes in the "Orthovox" magnetic type. The "High Fidelity" series includes the following sizes: 6½, 8, 10, 12, 14-inch with peak power ratings of 9 to 30 watts. "Utaflux" P.M. dynamics are available in 5, 6, 8, 10 and 12-inch sizes with normal inputs of 5 to 25 watts. Utah Radio Products Co., 820 Orleans St., Chicago, Ill.—see also advt. p. 61.

Albertson interphones

★ Complete line of interphones—two-station, master and all-master type system. Two-station system list \$40 with cable. Master stations \$40—remote stations \$15. Standard systems handle up to 6 sub-stations. Special systems for up to 15 stations also available. Albertson Co., 1911 Sylvania Ave., Toledo, Ohio—Radio Today.

Electric shaver filter

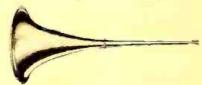


★ Unbreakable molded rubber filter for electric razors. Contains duo-lateral wound chokes and a by-pass condenser. Light in weight and requires no ground connection. Size 1¼ diameter by 3 inches. List \$1.25. J. W. Miller Co., 5917 S. Main St., Los Angeles, Calif.—Radio Today.

Breez-Electric charger

★ 6-volt wind driven generator for charging storage batteries. Governor on propeller insures maximum charging rate and gives protection from high winds. The Super Twin-Charger is a 32-volt model with 1,250 watts output and employs a dual generator. Towers of 40, 60, 80 foot heights available. Breez-Electric Corp., 444 N. Oakley Blvd., Chicago, Ill.—Radio Today—see also advt. p. 63.

Aluminum speaker trumpets



★ Exponential type trumpets with lengths of 41, 51, 63, 72 inches. Extra heavy cast aluminum throats with bell of heavy gauge aluminum spinning. Permanent magnet trumpet units are available for these horns. Modern Engineering Co., 2004 Champlain St., Toledo, Ohio—RADIO TODAY.

Bullet mikes redesigned

★ Five new microphones of the Bullet dynamic type. TR-5 is an all-purpose mike with −42 DB output. TR-6 substantially same as TR-5 but adapted for exceedingly long lines. TR-7 a non-directional vertical type with −40 DB level. TR-8 custom built to satisfy any requirements — sensitivity −38 DB. TR-9 also custom built ,supplied with individual drawn curves—output −38 DB. Transducer Corp., Radio City, New York, N. Y.—Radio Today—see also advt. p. 59.

Dynamic microphone



★ Self-energizing dynamic microphone. Unaffected by heat or moisture and has no hum pick-up. Output —58 DB with frequency response from 40 to 8,000 cycles. Double coil transformer on self-shielding square core. Available in high impedance, 50, 200, 500 ohms. Universal Microphone Cq., Inglewood, Calif.—Radio Today.

Mica padding condensers

* Fixed mica padding condensers for radio frequency and intermediate frequency circuits. Each unit held together by a central screw by means of which the capacity may be adjusted. Can be supplied with tolerance of 1 per cent. Replace usual fixed con-



densers and trimmer in parallel. Capacity can be adjusted over a wide range with the trimmer screw. Aerovox Corp., 70 Washington St., Brooklyn, N. Y.—RADIO TODAY—see also advt. p. 67.

Ham microphone



★ Specially designed mike which will give broadcast quality without any peaks—permits higher percentage of modulation with splashing. Special shielding and RF choke circuit eliminate possibility of hum pick-up. Output —64 DB on open line. Obtainable in high or low impedance. Modern spring stand with call letter plate. Call letters supplied without charge. List \$22 in gunmetal, \$23 in chrome. Amperite Corp., 561 Broadway, New York, N. Y.—Radio Today—see also advt. p. 56.

Rad-o-Phone intercommunicator





★ Interphone system for use on Erla-Sentinel radio sets. Speaker unit placed in barn or other remote point. Control box placed near radio permits 2-way conversation between barn and house. Radio programs may also be sent to remote point. Radio set acts as pick-up and reproducer at home end of system. Sentinel Radio Corp., 2222 Diversey Pky., Chicago, Ill.—Radio Today—see also advt. p. 36.

Hickock tube checker

★ On page 100 of the June issue, by error, the prices given for the Hickock tube testers were the list. Net prices are as follows—AC51, \$46.50; AC47-A, \$75.

NEW BOOKLETS

- * New tube index, identifying 330 tubes in a 10-page letterhead size painphlet, has been published by Arcturus Radio Tube Co., Newark, N. J. Space is left for dope on tubes yet to come. Index is to be had from jobbers or from headquarters at 10c.
- Elaborate catalog No. 38, on "Radio Coils and Allied Products," has been released by J. W. Miller Co., 5917 S. Main St., Los Angeles.
- "Public Address Blue Book," a 16-page presentation of amplifiers, sound systems, mikes, record players, stands and speakers, has beeu released by David Bogen Co., Inc., 663 Broadway, New York, N. Y. Blue Book is available free from Bogen distributors.
- Fully illustrated bulletin giving details on additions to the Weston line of radio servicing instruments is now ready for servicemen.
 Copies may be had by writing for
 No. R-15-A, from Weston Electrical
 Instrument Corp., Newark, N. J.
- * Instruction manual for Hy-tower Chargers, a 24-page book with detailed sketches on all aspects of installation, has been issued by Parris-Dunn Corp, Clarinda, Iowa. Com-plete information on wiring, location, assembly, trouble shooting, etc., is presented with illustrative material. Booklet is free from headquarters.
- Illustrated 52-page dealer catalog is being released by the Burgess Battery Co., Freeport, Ill. Booklet is the company's most complete listing of dry batteries, lamps, flashlight cases and lanterns, and is free.
- Clough-Brengle Co., 2815 W. 19th St., Chicago, have issued a new 8-page booklet listing their complete line of electrical testing equipment.
- ★ Descriptive literature on new "Twin Gadgets," products of Alfred A. Ghirardi, famous radio writer, is available free from his publishers, Radio and Technical Publishing Co., Dept. 30, 45 Astor Place, New York, N. Y. One of the gadgets is an auto pocket trouble shooter, and the other applies to home sets.
- * Summer Bargain Flyer for 1937 has been released by Wholesale Radio Service Co., 100 Sixth Ave., New York, N. Y. On 12 pages it lists parts, test instruments, auto sets, appliances, home sets, P.A. and amplifier equipment. Free copies are available from the N. Y. address, or from any of the firm's 5 branches.
- ★ Master antenna manual, outlining modern technique for installations in apartment houses and large buildings, as well as in private homes, has been released by Tech-nical Appliance Corp., 17 E. 16th St., New York City. Free copies are available from jobbers or from TACO headquarters.

U. ELECTR<mark>IC CLOCKS</mark> Sell Service



ON N. U. DEAL

This unusual example of beauty in a commercial clock was created by the largest advertising clock manufacturer in the world. It is a permanent high spot advertising fixture equipped for brilliant illumination as a night display with equal attractiveness in daytime use.

Get it FREE the NATIONAL UNION WAY

[Requirements less than 4 tubes per week!

National Union has given servicemen throughout the United States more than 70,000 pieces of fine equipment. If you're not taking advantage of National Union's service dealer plan, you're missing the greatest opportunity in the radio industry today.

ABOUT N. U. TUBES ...



National Union manufactures a complete line of radio tubes in glass, metal and G-type. National Union's high quality has made them the outstanding favorites in the radio service profes-

sion. All sales policies have been formulated with the idea of making National Union radio tubes the ideal replacement tube for the radio dealer. This has been backed up with a sell-

ing program that means real support and help to the wide-awake dealer. Dealers and jobbers handling National Union radio tubes are the leaders in repair parts and service.

All you do is contract to purchase a few tubes per week, place a small deposit, which is refunded to you after the tube purchase is completed, and the instrument you have selected is yours "for keeps" without any strings attached. Meanwhile, remember that you have the use of the instrument all during the time tube purchases are being made.

A
CLIP!
MAIL
NOW!

NATIONAL UNION RADIO CORPORATION 570 Lexington Ave., New York City

Tell me how to get free Electric Clock.

I am interested in following service

equipment	

RT-737

Name Address

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

110 VOLTS AC ANYWHERE

KATOLIGHT, JR., AC PLANTS

Sells itself! 55 pounds. Self-cranking 300 watts, and rope-cranking 350 watts. Also 6, 12, 32 and 110 volts DC.

300 TO 10,000 WATT AC PLANTS

Specially designed for sound-truck, amplifier, P.A., radio and other work. Self-contained. Self-cranking by connecting to auto batteries.

DIESEL PLANTS

Full Diesel AC & DC plants. 2, 3, 5, 6 KW sizes.

* * *

AC, DC Generators. Rotary Converters; DC Plants; Windmill Lighting Plants. Dealers, Jobbers, write for details and discounts

KATO ENGINEERING COMPANY

MANKATO, MINNESOTA, U.S.A.



NEW YORK OFFICE: 259 WEST 14TH ST. CHelsea 2-7330

SPOTTING SOUND SALES

Dealers go after additional P. A. profits

SOUND SYSTEM HELPS LABOR RELATIONS

* A new argument for soundequipment sales in industrial plants is presented by G. J. Irving of Webster-Chicago.

"For the past few months, the matter of labor relations has been the outstanding topic of factory management. From plant managers to other executives all the way up to the chairman of the board, ways are being discussed to improve labor relations, particularly from the standpoint of making labor more cognizant of business problems.

"The urge, therefore, is to promote closer unity down to the youngest workman in the plant, to keep employees informed on all events affecting their particular position, and their particular business, and in addition to promote better working conditions, more pleasing surroundings and if possible, of course, increased efficiency.

"When factory managers realize just what sound systems can do for them in this problem," comments Mr. Irving, "we predict that no manufacturing establishment of any size will want to be without one. Sound systems are used in some factories now during lunch periods for furnishing music and other broadcasts, and also to enable the factory to listen in on world events when they happen to be taking place during working hours. Thus, aside from speeding up service, sound systems definitely tend to promote better relations.

"In addition, there is the opportunity for the management to hold periodical discussions with all of its employees, with little or no loss of time."

DEVIL TO PAY

* A popular 4-letter gutter word, witlessly used by a public address service man in a bad mood, can sound profoundly offensive when heard through loudspeakers. In fact, anyone who uses picturesque language around a live mike is inviting some sort of fuss.

One reported solution is the use of a placard with the words: "Please Don't Swear in the Presence of the Amplifier." Perhaps the advice could apply as much to speakers as to installation men; Father Coughlin

might feel that the suggestion was wasted on him, but what about Hugh Johnson?

SPINNING TO MUSIC

* Ever so enterprising gentleman of North Carolina has concluded that radio is just the thing for factories.

J. Mack Hatch runs a hosiery mill in Belmont, N. C., and now has his whole mob of workers listening while they work,

Whether it's opera or hotcha, drama or swing, the arrangement results in several more stockings per day. System is designed so that reception is louder in the noisy sections of the plant; it seems that no wheel turns too fast for the loudspeakers to drown.

Local CBS station WBT, of Charlotte, has had many a chuckle over this business because all the persons in the plant regard its programs as part of their industrial careers.

AMPLIFIED CALLS TO PRAYER FROM MODERN MINARETS

* Some smart sound salesman has at last gotten under the brown skins of the holy old men of the Far East. In certain Mohammedan areas there, where it is customary to call folks to prayer by speaking from an elevated position in a minaret, loudspeakers have been installed to amplify the voices. The whole world has been amused at the "commercialization" of the curfew.

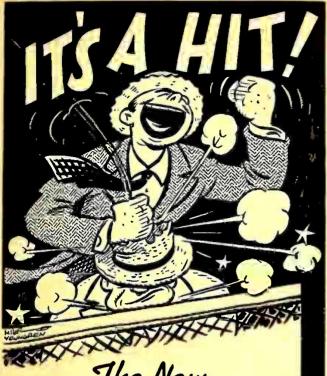
Not that it takes a louder voice nowadays to bring the Easterners to their knees (or their faces, or whatever they pray on). It's just that sound systems are coming into their own, as convenient and civilized devices for the amplification of any voice. Churches here and abroad have long since used them.

FIGHTS GET 'EM: LISTENERS LOAD LINES

* The blow-by-blow description of the Braddock-Louis fight, June 22, was carried over 126 NBC stations. In New York City, the electric-light system reported an increase in load at 10:30 P.M. of 183,000 kw., compared with the preceding night. At 11:30 P.M. the increase was 167,000 kw. The broadcast closed at 11:40, and at 11:45 the load increase was still 105,000 kw., but dropped rapidly, becoming normal after midnight.



Farm events are showing up as "sound" possibilities. Here's a section of the 150,000 guests at a corn husking contest, as shot by its broadcaster, NBC.



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Hit! Me eye! It's a HOME RUN. For the Stancor line of Battery-Operated Transformers is the ONLY COMPLETE LINE that can be bought.

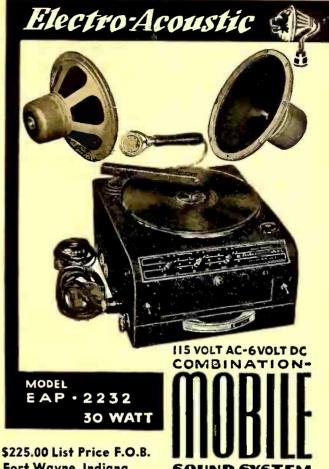
Again Stancor leads! Why waste your time and handicap your service by ordering replacements from a dozen sources? Stancor has everything you need! Complete lines of Exact Duplicate and Universal Transformers for every requirement . . . complete assurance of highest quality . . . and a sure profit under Stancor's price policy.

Write for price sheets and complete information.

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- 4. Can be taken inside and used for church, ball-room or auditorium operating from any 50-60 cycle, 115-volt AC power source.
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A complete line of Sound Systems for permanent installation or portable use from \$53.00 up. Fully licensed.

2	ELECTRO-ACOUSTIC PRODUCTS CO. Dept. T, Fort Wayne, Indiana. Date
O	Please send me special bulletin on the Model EAP-2232 Mobile System and the name of my nearest distributor. I am also in- terested in receiving complete information on
	☐ Electro-Acoustic Portable Systems ☐ Electro-Acoustic Amplifiers ☐ Magnavox "EA Special" Speakers
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Model I. F. Chassis Peak	T10-3460—R T11-8460—R 9 T G'n'1 pur-				
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LF.

Posk

Model Chassis *Indicates that the listings have been checked by the manufacturer.

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

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

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

EACH TUBE IN SET A VACUUM TUBE VOLTMETER

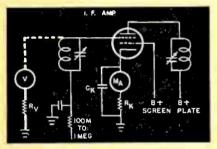
Milliammeter in cathode lead of amplifier tube valuable analysis method

* WITH the introduction of free point voltage analysis and other modern test equipment, the use of a milliammeter in measuring tube performance has become less. In fact, many of the set manufacturers no longer give current data for the various amplifier tubes in their service sheets.

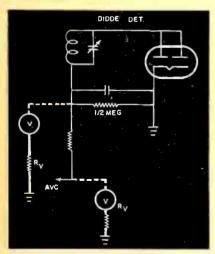
By using an adapter which opens up the cathode lead for inserting milliammeter, the total space current (plate and screen grid) is easily read on the meter without disturbing the critical tuned circuits, since the added capacity is negligible.

Each tube so equipped acts as its own vacuum tube voltmeter as well as an all-in-one analyzer for the stage under test. The current that is measured is dependent upon the grid and plate voltages, and screen voltage if a screen grid tube.

Main value of this type of analysis is that the tube will measure its own grid voltage without drawing any cur-



A voltmeter connected as indicated will not give a true grid reading while a milliammeter in cathode circuit as shown will give a fairly accurate indication, if interpreted properly.



AVC voltages are readily checked by allowing an AVC controlled tube to act as a vacuum tube voltmeter.

rent from the high-resistance grid circuit. Of course, it will not measure voltages within 2 to 5 per cent, but with experience and a knowledge of the plate (and screen) voltage, a very good estimate of the actual grid voltage can be made. It lends itself admirably to check on the AVC voltage and bias of stages which have a grounded cathode and grid voltage that is negative with respect to ground. While a vacuum tube voltmeter is the ideal device for such measurements, this method of analysis is worthy of attention.

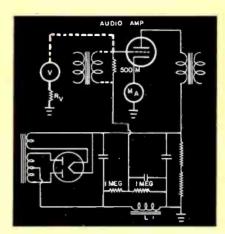
An inspection of the characteristic curves of any vacuum tube will show how the plate current varies with changes in voltage. (It must also be realized that tubes themselves vary, so that these characteristics are only approximate.) These curves will give the serviceman a basis on which to interpret the current readings. As an example-a type 2A5 with 250 volts on the plate and pentode connected, will draw 34 mils (plate current only) when the grid is -16.5 volts. If the voltage is -15, the current will be 37 mils. Or if overbiased to -20 the plate current is 28 mils. To be added to these plate current values is 6.5 mils for the screen cur-

Complete check-up on stage

Changes in the plate or screen voltage will also reflect as changes in the cathode (total space) current. So if everything is not as it should be, including the tube itself, the cathode current will not usually be normal. If the manufacturer's service sheets carry a tabulation for tube currents, the serviceman can easily check the stage under measurement.

As voltage measurements in the plate (and often the screen) circuit are easily made, since they are usually low resistance, they should be made in the normal manner and the current analysis depended upon as a check on the grid voltage and tube itself. If the cathode reading is too low and the tube is known to be good, then it follows that the bias is too high, and vice versa.

In AVC circuits current analysis is valuable in determining the operation of the AVC and the controlled tubes. When a station or signal is tuned in, the cathode current will drop, since



High resistance circuits require measurements with a vacuum tube voltmeter. The tube itself with a cathode milliammeter acts as such.

the diode detector has developed a negative voltage that is fed to the grid of the tube. If there is a delayed AVC signal, the AVC is not applied to the amplifier tubes until the signal developed at the diode exceeds a certain amount. This function can be checked if the test oscillator employed will attenuate to a low enough degree.

AVC testing

No AVC to a tube (indicated by no change in cathode current when a signal is received) means that the tube is not being controlled. This may be due to either an open or ground in the AVC circuit. Leaky AVC by-pass condensers will often decrease the amount of AVC obtained by shorting part of it to ground. In order to fully interpret the cathode currents the serviceman should have complete circuit of the set available and a tabulation of the tube currents to be expected.

The AVC voltage developed is dependent so much upon the amplification of the set as well as the input signal, that measurement of it gives an excellent idea of how the I.F. and R.F. amplifiers are functioning. The greater the voltage (lower cathode current), the greater is the gain. Consequently, the current analysis method can be used in conjunction with one of the controlled tubes as an indicator to show the relative effect of replacing old tubes with new, certain circuit adjustments and changes. Tubes or adjustments located after the AVC stage

AMPERITE VELOCITY **NEW DESK STAND**



Name Plate with maximum of 10 letters. LIST \$2.00

LIST \$4.00

Microphones:

Models RBHn (High Imped.); or RBMn (200 ohms); with Cable Connector & Switch . . . LIST \$42.00.

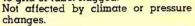
Models RBSn, RSHn, streamline design. slightly lower output than above, with switch only ... LIST \$32.00.

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No Peaks! No Splashing! Real Broadcast Quality!

RF CHOKE CIRCUIT INCLUDED IN MICROPHONE

Finest mike ever designed for "hams". No peaks, thereby allowing a higher percentage of modulation without splashing. Output, -68 db. Operates directly into grid of tube, Rugged.



MODEL HAM (High Imped.) or MODEL HAL (200 Ohms) Gunmetal, LIST \$22... Chrome, LIST \$23.00, Price includes special Ham Desk Stand with individual call letters, and 6 feet of cable.

AMPERITE MODEL RAL

A popular Amperite \$22 LIST Velocity of very high excellence. Used for both speech and music. 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. Gunmetal, LIST \$22.00



Chrome. LIST \$23.00 FREE: Window Decal & Window Display

AMPERITE (6. Cable Address Alkem, Now You



CATHODE CURRENT ANALYSIS—Cont'd.

will have no effect on the AVC voltage. In fact, one large radio service laboratory uses this simple adapter device as a resonance indicator when aligning the set.

An idea of the mutual conductance of a tube can be readily obtained by comparing the maximum and minimum plate currents of the tube under test (AVC controlled, of course) when the signal generator is advanced from minimum output to that required for full output of the set. (Use same two output settings on signal generator.) The tube with the greatest variation in these two readings has the greater mutual conductance.

Comparative sensitivity tests

By keeping the set and signal generator in step and tuning over the dial the sensitivity of the set can be checked approximately over any one band. While the sensitivity may be much lower at one end of the band. the change should be gradual as the set and signal generator are varied in sychronism. Any abrupt drops in the signal strength as indicated by au increase in cathode current may mean that a dead spot is present.

As was pointed out in the beginning of this discussion, this method of analysis is not a precise one-however, to the serviceman with limited equipment especially, it can be valuable in determining certain factors that are not measureable with the instruments on hand.

IMPORTANCE OF LOUDSPEAKER EFFICIENCY IN SOUND WORK

* Need for a good loudspeaker is being overlooked by many sound installers. The reproducer is as important as adequate power output in the amplifier itself. Quality speakers will help give lifelike tone when used with a high-grade mike and amplifier.

Speaker efficiency is often neglected by sound experts when planning an installation. Altogether too many of them think only in terms of electrical wattage rating of the amplifier.

Sound energy, which fills the auditorium, is far less than the electrical amplifier output. For instance, a 10watt amplifier when connected to a speaker with 5 per cent efficiency delivers ouly 1/2 watt of actual sound energy. A 5-watt amplifier with a 10 per cent efficient speaker will deliver

1/2 watt of sound energy. And a 2watt amplifier connected to a 25 per cent efficient speaker would deliver the 1/2 watt of energy. In other words, a 2-watt amplifier used with a highly efficient speaker will deliver as much "sock" as a 10-watt one with a poor

Speakers with high efficiency are more expensive than the others-but in many cases it is desirable (aud cheaper) to have an expensive speaker and a small amplifier rather than a big (and expensive) amplifier and several cheap speakers.

Price vs. efficiency

One large speaker manufacturer has just published a leaflet which lists the relative speaker efficiencies. Below are the net prices and efficiencies for these 12-inch units:

	Net	Relative
	Price	efficiency
Type 1 (PM)	\$9.26	1
Type 2	9.70	21/2
Type 3	12.64	4
Type 4 (PM)	21.76	4

While all of these units are the same size and made by the same mauufacturer, there is an overall difference of 4 to 1 in the efficiency. Type 3, an electrically excited dynamic, is more than 11/2 times as good as Type 2. In addition, it will handle 12 watts to the 10 watts of Type 2.

The higher efficiency means that Type 3 will be as effective with a 10watt amplifier as Type 2 will be with a 15-watt system. Since Type 2 will handle only 10 watts, it will also be necessary to use 2 of them with 15 watts output.

Net savings by using Type 3 speaker will be lower cost of a 10-watt amplifier as compared to a 15, and the price of 1 speaker instead of 2 (speaker savings alone approx. \$6.75).

The listing above also gives an iudication of the difference in price between PM and ordinary dynamics for the same efficiencies.

On complete sound systems which are merchandised as a unit, the sound dealer should consider the efficiency of the loudspeakers as well as the output of the amplifier. Inefficient reproducers will greatly lower the capabilities of a good amplifier.

Savings on power bill

Another advantage of using highefficiency speakers is that of savings on the electric power bill. If a 30watt amplifier will do the job okay with suitable speakers, while 60 watts



Indian Trailer outfitted as service shop by Supreme attracted much attention at the recent Chicago radio show. Many servicemen feel that it opens up a new approach to servicing in the rural areas.

is required with low-efficiency speakers, up to 100 watts or more of AC power consumption can be saved by using the 30-watt system.

Over a period of time the savings in power will be appreciable, particularly if the amplifier is used continuously. So even if the increase in speaker price is not cancelled by a lower amplifier cost, the savings in the power bill may be great enough to warrant the higher initial cost.

For portable sound systems, where power to run the system is limited, the use of a high-efficiency speaker is most desirable. In many instances it might be advisable to spend quite a few extra dollars buying the most efficient speakers possible. In this manner high acoustical (sound energy) output would be available from a rather small sound system.

Thing to remember about sound equipment is that sound energy is important—and that sound energy is dependent as much upon the speaker as upon the watts output of the amplifier. Speaker efficiency times the electrical watts equals sound energy.

Speaker size important

Usually large speakers are more efficient than small ones—but this is not always true. The manufacturer mentioned previously has a 15-inch speaker that is less than half as efficient as his best 12-inch unit. However, the 15-inch one is cheaper than the 12.

Not a few servicemen have the idea that they can't use a large speaker with a small power output. They feel that a speaker that can handle 15 watts will not work as efficiently when used with only 3 or 5 watts. This is a false impression. The efficiency of a speaker unit is independent upon the power supplied to it by the amplifier.

SERVICE WORK LEADS TO MANY RADIO SET SALES

* Harold R. Nitzke, owner of the Radio Doctors, 1128 N. 8th Street, Sheboygan, Wis., states that he believes in doing all his own service work so far as possible, because it enables him to sell more radios.

Mr. Nitzke says that he has from 150 to 200 service calls a month and he manages to fulfill most of them himself. Ou fully 90 per cent of these calls Mr. Nitzke reports he is able to sell additional parts such as resistors, condensers, tubes, etc. If he notes that the radio is obsolete, he advises the owner that he doesn't think it would pay to repair the set, but that it would be a better idea to buy a new one. Thus many sales of new sets are made.

Or if Nitzke notices that the radio set owner is a fellow who likes mechanical perfection in any apparatus he urges the purchase of a new set upon him, even though the present set may be only two or three years old. Thus by knowing his customers, Nitzke often makes sales that someone else might pass up.

"We also do service work for other dealers in and about Sheboygan," declares Mr. Nitzke, "but I like to handle my own service calls, as all these set owners are active prospects for new radios and I feel I can handle them better than anyone else whom I

might hire. I am sold on this business more than any salesman I could hire, and therefore do a better selling job."

Mr. Nitzke does his testing of tubes right in the front of his store where passersby can see him. He throws the old tubes in a large pile in the window. This action attracts many people who later bring their tubes in to be tested at the Nitzke store.

UNIFORMLY DEPENDABLE

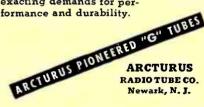


engineering precision

Arcturus perfection of engineering detail that assures such uniformly superior tubes is nowhere better evidenced than in the popular 75 Double Diode Triode.

Unique treatment of the grid, coupled with the famous Arcturus diode test which simulates actual set operation (rather than purely static conditions) assure maximum sensitivity over a longer period of time. They are your further guarantee of the utmost efficiency in a.v.c. operation. Special chemical and mechanical treatment of the mica results in low noise level. Close tolerances in the mica enable elements to be "locked" rigidly in place for exceptionally sturdy, short-proof construction. Outstanding care in filament design reduces hum, gives longer life and protects against damage by overloads.

Add these points of manufacturing superiority to the final Arcturus test in an actual radio circuit and you have convincing proof of modern, up-to-theminute tubes that meet today's most exacting demands for performance and durability.



ARCTURUS

INDEPENDENT TUBES FOR DEALERS WHO DO THEIR OWN INDEPENDENT THINKING



-says EASTERN AIR LINES



"Centralab Variable Resistors

have been giving very satisfactory service in our ground station and aircraft applications. We find them dependable and economical for many varied applications in our communications equipment."

Don C. McRae, Supt. of Communications

Old Man Centralab

takes to the air with the finest recommendations . . . with a pilot's license for smooth frictionless performance. Eastern Air Lines take no chances . . . they realize that trouble-free communication facilities are mighty important toward maintaining schedules . . . their ships and ground sets are Centralab equipped.

Schednle your replacement work Centralab Controls. Smooth, certain attenuation...plns long life and absolute customer satisfaction are definite.

Get the 1937 Volume Control Guide



Milwaukee, Wis.

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

SERVICE NOTES

SET SPECIFICATIONS

★ Featured this month in Radio Today and in June are the complete specifications of practically all the 1937-38 radio sets. These "spex" list complete data on the receivers—of particular interest to the servicemen are the I.F. peak frequencies of all the superhet models.

Power line watts and battery drains are listed, too, for each model. These power consumption figures can be used by the servicemen as a rapid check on the condition of the set. If the power line watts are abnormally high, it may mean a shorted or leaky filter condenser, a breakdown in the power transformer, etc. An excessive battery drain will mean that the batteries in the set will not stand up as they should and the serviceman should rectify the difficulty before returning the set. Keep these valuable specifications for future use.

ELECTRONIC TONE CONTROL

* Featured in some of the Bogen amplifiers is an electronic tone control. Illustrated in the accompanying diagram is the circuit of this tone control.

The output of the tube on the left is fed into two channels—high frequency and low frequency. The low frequency channel (upper) consists of a large coupling condenser (½ mf.) which readily passes the bass. The highs which go in this channel are by-passed by the .1 mf. condenser which shunts the 500,000 ohm bass tone control. Two 6C8 tubes are required to handle the bass frequencies.

The lower channel for the high frequencies has a small coupling capacitance of .001 mf, which keeps the bass from reaching the high-frequency type 6L5 amplifier tube.

It is apparent that these controls will also have a marked effect upon the gain of the amplifier—so ordinarily the controls should be operated as near the full-volume position as possible so as not to decrease the amplifier gain.

The output of the high and low frequency channels is combined in the plate circuits of the tubes before being fed to the grid of the next amplifier stage.

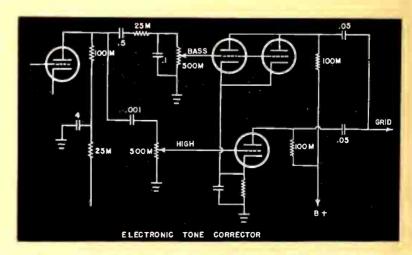
SERVICE INSTRUMENTS RECORDED

★ A novel feature of the registration card which members of the Cleveland local union, I.B.E.W., fill out, lists the types, serial numbers, and makes of servicemen's instruments. This is to provide positive identification in case an instrument is stolen. The cards are on file at the organization office, 1248 Walnut Avenue, Cleveland. There, also, are listed instruments available for rental by servicemen.

PEAK VOLTAGES AND CONDENSER FAILURES

★ Occasionally condensers in a given circuit will break down for no apparent reason. A d.c. meter placed across the condenser indicates that the potential is well below maximum rating. Why?

In explaining this seeming mystery,



Electronic tone control as employed in the Supreme Fidelity CX-30 amplifier. Dual tubes are used in the bass channel to take care of the relatively large amount of power handled.



of car. Telescopic, extending to 56 inches. Made of Chromium plated brass and stainless steel. Fits every make of car.

PROMPT DELIVERIES

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

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CLEVELAND, DHID

"BULLET" MIKES

... New 1938 Models Now Ready—Get Details



When our engineers created the new 1938 "Bullet" dynamic microphones they built a line unsurpassed in quality and performance. "Bullet" mikes are remarkably sensitive, rugged and dependable. You who appreciate fine quality in sound reproduction will do well to get complete data on the new "Bullet" line. Models TR-5, 6, 7, 8 and 9 range in list price from \$27.50 to \$90.00. There's a model to fill your need. For complete data and prices, write now to Dept. 1T.



"BULLET" MICROPHONES Made only by

TRANSDUCER CORPORATION 30 Rockefeller Plaza New York

the Engineering Department of Aerovox Corp. points out that a contributing cause is found in the presence of alternating voltages not shown by the meter, which subject the condenser to potentials above the maximum allowable limit. In addition to constantly recurring peaks of this nature, there may be occasional peaks due to surges in the line or sometimes when switching the apparatus "on" or "off".

A typical example of a condenser subject to peaks is the first filter condenser in a power pack. Blocking condensers in an output stage have an alternating voltage super-imposed on the direct voltage. So, instead of being subjected to only 250 or 300 volts, the potential across such a condenser may vary between 50 and 500 volts. When a receiver is not operating properly it may be that conditions exist which cause abnormally high peak voltages.

Before blaming the condenser for its failure, therefore, it may be well to test the circuit for peak or surge voltages which, as already pointed out, may be quite aside from known operating voltages. The cathode ray analyzers now available are particularly adapted to this kind of testing, since they enable the user to observe wave shapes and to measure voltages. A peak voltmeter may also be employed.

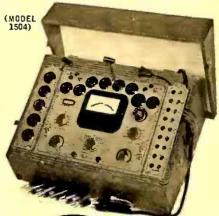
FREE N.R.I. INTERFERENCE ELIMINATION LESSON

* Recognizing the steadily growing importance of interference elimination as a profit-builder for servicemen, the Sprague Products Company of North Adams, Mass., makers of Sprague condensers, has made arrangements with the National Radio Institute of Washington, D. C., to distribute a number of free copies of the N.R.I. Lesson, "How to Eliminate Man-Made Interference." Requests for the lesson booklet, which includes 32 pages profusely illustrated with cuts and diagrams, should be made direct to the Sprague company.

The booklet covers the subject from beginning to end, telling first how to locate the source of radio noise and then how to remove the cause by installation of the proper filter condensers, chokes, etc. N.R.I. has also recognized the importance of the Sprague interference analyzer and the noise filters which the company has pioneered and perfected. This plan is based on keeping this business in the hands of the serviceman and out of the consumer's hand. It is for this reason that Sprague has not made plug-in type filters.

Salesmanager Harry Kalker, who

The New P.O.E. TESTER POWER-OUTPUT-EMISSION



MODEL 1504

Give All Radio Tubes a Com-Dlete Test.

Simulates Set Operating Conditions.

Model 1504 Combines in One Tester the Following Instruments:

- 1. Power Output Test for All Amplifying Tubes
- 2. Emission Test for All Tubes
- Point 3. Free
- Tester 4. Neon Short
- Test Di-5. Seporate
- ode Test
- 6. D.C. Voltmeter 7. D.C. Milliom-
- meter 8. A.C. Voltmeter
- 9. Ohmmeter 10. Condenser Test for Shorts
- 11. Electrolytic Condenser Leokoge Test 12. Decibel Meter

This very popular Multipurpose Tester has been brought up-to-the-minute for 1937-38. Beautiful new etched panel has natural silver background with sunken black lettering. Fittings are finished in red.

OTHER MODEL P.O.E. TESTERS

Model 1503—Same as Model 1504 but with two metal side panels (with operating data) instead of free point tester. Deal-er's Net Price.....\$46.67 Model 1502 — Power Output - Emission Tube Tester only. Same case as Model 1504. Truly a final analysis tube tester. Dealer's Net Price \$36.67 SEE YOUR JOBBER . WRITE FOR CATALOG

ELECTRICAL INSTRUMENTS

THE TRIPLETT ELECTRICAL INSTRUMENT CO. 197 Harmon Ave., Bluffton, Ohio Without obligation please send me more information on Model 1504; Model 1503; Model 1502. I am also interested in..... Name

Address City State



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... to make sure of reading it regularly? If not, you are missing radio's outstanding magazine—edited in a fast tempo for a swift-moving industry—growing like the dickens!

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RADIO TODAY

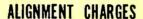
480 Lexington Avenue New York, N. Y.

SERVICE NOTES

has just returned from a visit to the trade throughout the East, where he appeared as guest speaker before more than a dozen service meetings, reports a steadily growing interest in interference elimination work.

"I regard this as one of the 'coming' big opportunities for servicemen to expand their usefulness and increase their profits," states Mr. Kalker. "Slowly, but surely, the public is coming to understand that practically any radio noise can be eliminated by proper filtering. Here and there cities and towns have already passed local ordinances requiring that noise makers be filtered. In several cases recently, we ourselves have supplied at the request of local service organizations, sample ordinances which they intend to make every effort to have passed.

"Thus, it is easy to see which way the wind is blowing. I am convinced that the serviceman who will devote some study to interference elimination and make himself known as an expert at this kind of work can boost his earnings materially."



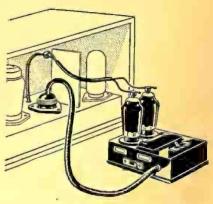
* Alignment of a set is more than a five-minute job with A. E. Rhine's Radio Engineering Service of New York. It consists of using a piezo-electric calibrator to check all frequencies both in 100 and 1000 KC steps—and while in use it serves to check each setting of the test oscillator for drift. And if drift is present, correction is made for it—and the set is aligned on the nose always.

When the receiver is thus aligned, Rhine knows that it will give peak performance at every point.

Prices for such alignment of superhet receivers are as follows:

Sets of 9 tubes or more	
BC band only (including I.F.) \$	8.75
BC plus 1 shortwave band1	3.00
BC plus 2 shortwave bands	6.00
BC plus 3 shortwave bands1	7.50
Sets of 8 tubes or less	
BC and I.F	6.00
BC plus 1 shortwave band	
BC plus 2 shortwave bands1	1.00
BC plus 3 shortwave bands1	2.50
Midgets-5 tubes or less	
BC and I.F	4.50
BC plus 1 shortwave band	
BC plus 2 bands	8.00
BC plus 3 bands	8.75

Charges indicated are to be made whether alignment is the sole requirement—or in case where alignment is necessary in addition to other repairs indicated on the estimate. Estimates



Device for comparing radio tubes in the set now being used in Germany.

can be furnished for all work and parts necessary exclusive of alignment if the customer so desires. He must be informed as to the condition of his receiver if same is not in complete alignment.

(Servicemen: what are your policies and feelings concerning flat rate charges?—Service Editor.)

TUBE COMPARER

* A device for simplified comparison tests of radio tubes in the customer's radio is now in use in Germany. Instrument consists of a plug-and-cable arrangement terminating in a small box with dual tube sockets. A switch selects either the old tube in the set or the new one.

In this way an instantaneous comparison of the tubes is obtained. The quality and sensitivity can be readily checked. In audio circuits the effects of capacity in the lead are negligible. Detuning of the circuit on RF is compensated for by increasing gain of the set.

SERVICE TIPS*

Silver-Marshall R 5 to 10 minutes (10 Tube) 5 to 10 minutes

★ If the volume suddenly rises on removing the a-v-c tube (1st 27 near two 51's) replace the first filter condenser with an 8 mfd. electrolytic unit. Improper filtering acts as a signal on the a-v-c grid. Volume may be improved by replacing the parallel 27 2nd. detectors with 56 type tubes. Motorboating or hum in this circuit may be due

^{*}Service tips are selected from the files of H. K. Bradford, President, Capitol Radio Research Labs., Washington, D. C.

to excessively high resistance in the tone control. This is the detector plate resistor also. Replace the .5 mfd. condenser from its lower contact to ground with a .25 mfd. value and connect a .25 meg. resistor across the outer points of the tone control.

Ford V-8 Noise suppression hint

* Change the battery cable by soldering a piece of low tension battery cable to the battery wire on the set. Make it long enough to reach the negative storage battery terminal. Cover the wire with loom and cover this with braided shielding. Ground one of this shielding to the positive terminal of the storage battery and the other end to the radio chassis. The battery wire at the end of the loom should connect directly to the storage battery negative terminal.

G-E B -40 Fuses blow upon installation

★ Look for a shorted .03 mfd. Condenser in the vibrator base.

Crosley 148, 167, 169 Oscillation, dead

* A condition of no reception is sometimes caused by shorting of the if tuning condenser. It is supported in a square hole in the chassis between the 58's. This condition is caused by failure of the mica spacer when the screw is driven down too tight. Place a piece of mica in the condenser hinge and realign. Check the other condenser of this type on top of the chassis also, as the same trouble may develop here

as well. To eliminate oscillation, try a .02 mfd. condenser (600 volt) from the power transformer side of the AC switch to ground. Be sure to use 6-8 volt pilot lamp, as otherwise fading may result.

Apex 46 Distortion on low volume after tubes are replaced

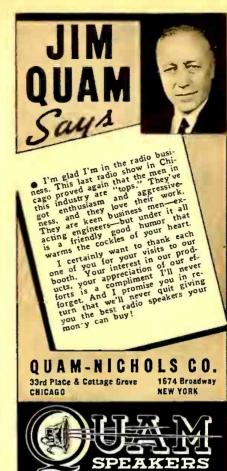
★ Trouble of this kind can be overcome by replacing the old volume control with another unit connected in a slightly different way. The old one is simply a resistor in the cathode circuits of the 24's. For proper replacement a 10,000 ohm tapered unit connected with one end to the antenna lead, the other end to the cathodes of the 24's through a 250 ohm resistor, and the slider to ground or chassis. The break in the wire wound resistor where the old control was connected should be closed electrically with a jumper.

Brunswick 16

San Francisco

Dead

* When the oscillator refuses to function replace its screen resistor with a 5,000 ohm ½ watt unit. If the volume is insufficient, change the screen bleeder resistor to a lower value, say between 10,000 and 7,500 ohms. The original value used is 14,000 ohms. For abrupt change in volume, or intermittent reception, check the 10 mmfd. coupling condenser between r-f tube and first detector. This is mounted on the bottom of one of the tuning condensers with a machine screw which often loosens, causing trouble.





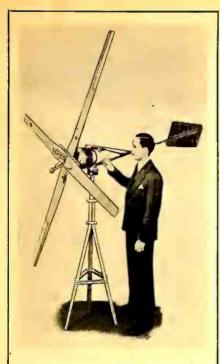


19th at Bryant

SALES FEATURES & SPECIFICATIONS OF 1938 FARM RADIO SETS - Cont'd.

													vy Droin Diet								
Model No.	List price	Cab- inet style	Wave- bands	No. of tubes	amp-	Watts audio power	Spkr. size type	Tone con-	Power Supply	Power pack			"B"	Size	Dia1 Ratio	Illum-	AVC	Acous- tical devices	I.F. peak	Fea- tures	
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Pacific R 80 80 90 90	370.25 54.75 47.25 61.95	CON T	W. Adams St B.P.S B.P.S B.P.S B.P.S	6-MG 6-MG 6-MG 6-G 6-G	ns NS NS No No	"Pacific 2 2 NS NS	8-PM 6-PM 6-PM 8-PM	Yes Yes Yes Yes	6V 6V 32V 32V	1.7 1.7 NS NS	5 5 5 6 5 5 6 6 (5 6 6 6)			8 6 6 8	NS NS NS NS	Yes Yes Yes Yes	Yes Yes Yes Yes	No No No No	465 465 465 465		
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Pilot Rac TG56 CG56 TG5206 CG5206	\$74.50 99.90 74.50 99.90	3706 366 VT CON VT CON	th St., Long I B.S B.S B.S B.S B.S	sland City 5-G 5-G 5-G 5-G	y, L. I., Yes Yes Yes Yes	N. Y.—	"Pilot" 8-PM 12-PM 8-PM 8-PM	Yes Yes Yes Yes	6V 6V 32V 32V	5 5 5 5	4 5, 504 4 4 4 4			6 6 6	100:10:1 100:10:1 100:10:1 100:10:1	l Yes	Yes Yes Yes Yes	No No No No	456 456 456 456	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
					- 00	-	J = 1V1		ntinue	-	aae 64)			100.10.1	. 103	1 43		400		

(Continued on page 64)



There's a profit in the SUPERCHARGER

without stocking it!

HERE'S a 6-volt wind generator that operates anywhere ... and rolls up profits for you without any investment! It goes to work in a 4-mile-an-hour wind and puts out from two to five times as much current as any other generator under the same conditions. Its top output is 25 amperes . . . enough to run a fewlights as well as radio.

Complete with an 8-foot propeller, it is built to give years of continuous, carefree service. A 10foot tower, optional, is ruggedly constructed of heavy angle iron and is galvanized, not just painted.

The Supercharger works everywhere . . . East, West, North and South. Write for full details and learn how to make profits without actually carrying a stock!

32-volt units, too!

BREEZ-ELECTRIC CORP.

446 N. OAKLEY BLVD. CHICAGO, ILL.

"NO SQUAT, NO STOOP, NO SOUINT"



Under way early this month and to continue through the year is Philco's "biggest and most intensive advertising campaign" ever undertaken, promising to double last year's outlay. Using the theme, "No Squat, No Stoop, No Squint," to dramatize the new inclined control. the new inclined control panel, national coverage will include additional magazines, 200 newspapers, hundreds of billboards, and increased network coverage for Boake Carter. Special emphasis on Philco auto radio is current during July.

Revolving illuminated pyramid, designed to display 5 sets for the dealer, is included in the new series of sales helps issued by Philco. New promotion material also being ordered by dealers: a "stop" flasher counter or window display, gold satin banners, 24-sheet posters, Carl Hubbell's "Baseball Facts," 4-color newspaper tabloid, advertising mats, etc.

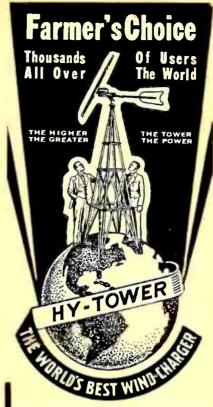
MIRACLE CHAMBER



The unusual circular drawing which represents Emerson's new development, "Miracle Tone Chamber," is presented as a new promotion keynote for dealers.

The design appeared first with no words used in the pattern; now a final outside ring has been added, with a sales-minded explanation.

We are indebted to J. B. Price. eastern sales manager of the Utah Radio Products Co., for photographs appearing in this issue snapped at the RMA golf tournament in Chicago.



PARRIS-DUNN **HY-TOWER CHARGER** SATISFIES

In every corner of the globe—under all climatic conditions, the Hy-Tower is universally the farmer's choice. Conclusive proof is the fact that sales of this amazingly efficient machine have increased over one thousand per cent so far this year.

MANY SUPERIOR FEATURES ACCOUNT FOR ITS POPULARITY
Extra High Tower makes 10-ft. installation. Puts charger up above deflected wind stream area—increases efficiency up to 30% in many cases.

Dunn's Patented Propeller Specd Control slips the excess wind, relieving tower of 670 lbs. strain, Reduces vibration and assures longer-lifed machine.

Positively Controlled Propeller eliminates

assures longer-lifed machine.
Positively Controlled Propeller eliminates breakage due to high winds.
All weights taken off propeller, keeping it light and free to run in slight breeze.
Simple Throw-out Collar takes propeller out of wind when batteries are fully charged. Allows charger to "motor" in case of short. (Eliminates burned-out generators) erators).

ADOPTED BY 21 LEADING RADIO

MANUFACTURERS

After exhaustive tests, the engineering departments of the following radio manufacturers, have recommended the Hy-Tower for use with their new '38 lines:

Detrola, Crosley, Emerson, Fada, Fairbanks-Morse, Fordson, Garod, General Electric, Grunow, Howard, L'Tatro, Majestic, Motorola, Philco, Pilot, RCA, Sentinel, Setchell Carlson, Simplex, Sparton, Stewart-Warner.

FRFF POWFR, with the HY-TAWED

FREE POWER with the HY-TOWER FOR RADIO FOR LIGHTS

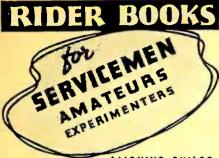
Write ainy of the above manufacturers for our new sales promotion plan. (It's hotter than a pistol and has a profit for the radio dealer). Or, write direct to

PARRIS-DUNN CORPORATION CLARINDA, IOWA Dept: 310

Backed by Over 20 Years of Successful Manufacturing Experience

SALES FEATURES & SPECIFICATIONS OF 1938 FARM RADIO SETS—Cont'd.

-		0.1			D. D.	W	C-1-	Т		Dismus	Batt	ery Dra	ain	-	Dial	+	_		V P.	F
Model No.	List price	Cab- inet style	Wave- bands	No. of tubes	amp-	Watts audio power	size type	Tone con- trol	Power Supply	Power pack amps	"A" amps	"B" volts		Size	Ratio	Illum- inated	AVC	Acous- tical devices		Fea- tures
	Radio & Te \$29,95	elevision VT	Corp., Tiog	a & C St	s., Phila	delphia,	Pa.—"P	hilco'' No	DB	THE STATE OF	NS	NS	NS	3x4	5:1	NS	Yes	No	470	- 100
38-33 38-33 38-34 38-34	45.00 39.95 55.00	CON VT CON	B B B	5-O 5-O 5-O	No No No	1 1 1	NS NS NS NS	No No No	DB 6V 6V	NS NS NS	NS	NS	NS NS	3x4 51/2 51/2	5:1 5:1 5:1	NS NS NS	Yes Yes Yes	No No No	470 470 470	
38-35 38-35 38-38	42.50 57.50 69.95	CON CON	B B,S	5-O 5-O 6-O	No No No	11/2	NS NS NS	No No Yes	\110AC \ DB	NS NS	NS	NS	NS	3x4 6	5:1 5:1 40:8:1	NS NS NS	Yes Yes Yes	No No No	470 470 470	
38-38 38-38 38-39	59.95 39.95 82.50	CON FT CON	B,S B,S B,S	6-O 6-O 6-O	No No No	1 1 1	NS NS NS	Yes Yes Yes	DB DB 6V	NS	NS NS	NS NS	NS NS	6 6 6	40:8:1 40:8:1 40:8:1	NS NS NS	Yes Yes Yes	No No No	470 470 470	
38-39 38-39 38-40	69.95 55.00 87.50	CON FT CON	B.S B.S B.S	6-O 6-O 6-O	No No No	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NS NS NS	Yes Yes	6V 6V (6V	NS NS NS				6	40:8:1 40:8:1 40:8:1	NS NS NS	Yes Yes Yes	No No No	470 470 470	
38-40 38-40 38-623	75.00 59.95 55.00	CON FT FT	B.S B.S B.P.S	6-0 6-0	No No Yes	13/2 13/2 11/2	NS NS	Yes Yes	(110AC	NS NS	NS	NS	NS	6	40:8:1 40:8:1	NS NS	Yes Yes Yes	No No	470 470	
38-623 38-624 38-624 38-643	69.95 65.00 79.95 79.95	CON FT CON VT	B.P.S B.P.S B.P.S B.P.S	6-O 6-O 6-O 7-O	Yes Yes Yes Yes	11/2 11/2 11/2 11/2 11/2	NS NS NS NS	Yes Yes Yes Yes	DB 6V 6V DB	NS NS	NS NS	NS NS	NS NS	6 6 71/2	40:8:1 40:8:1 40:8:1 40:8:1	NS NS NS	Yes Yes Yes Yes	No No No	470 470 470 470	3
38-643	105.00	CON	B,P,S 6 First Ave.,	7-0	Yes	11/2	NS	Yes	DB		NS	NS	NS	71/2	40:8:1	NS	Yes	No	470	3
69 Aviation U.H.F.	\$252.00 262.00 262.00	T T	B.P.S.U B.P.S.U.W B.P.S.U	8-G 8-G 8-G	Yes Yes Yes	11/2 11/2 11/2	8-PM 8-PM 8-PM	Yes Yes Yes	6V-DB 6V-DB 6V-DB		2.7 2.7 2.7	180 180 180	55 55 55	4 ³ / ₄ 4 ³ / ₄ 4 ³ / ₄	40:1 40:1 40:1	Yes Yes Yes	Yes Yes Yes	No No No	465 465 465	3 3 3
			olph St., Chic			olek''	8	Yes	6V	1.8				6	5:1	Yes	Yes	No		
N16702 N16702	42.50 59.50	VT	B.S B.P.S	5-G 7-G	No Yes	2 2	8 8	Yes Yes	6V 6V	1.65 1.8				5½ 6	2:1 5:1	Yes Yes	Yes Yes	No No	456 456 456	
84BT 84BT	\$27.95 37.95	VT VT	& Cooper Sts B B B B B B B B B B B B B B B B B B B	4-G 4-G	No No	-"RCA	6-PM 6-PM	No No	2V-DB 6V	2.65	.42	135	25	41/2 41/4	5:1 5:1	Yes. Yes	Yes Yes	No No	460 460	ak-O-Power," 7 2, 7
85BT 86BT 85BK	42.95 59.95 59.95 79.95	VT VT CON	B,P,S B,P,S B,P,S5	5-G 6-G 5-G	No Yes No Yes	2.2 2.2 2.2 2.2	8-PM 8-PM 8-PM 12-PM	Yes Yes Yes	2V-DB† 2V-DB† 2V-DB† 2V-DB†		.56 .62 .56	135 135 135 135	19 21 19 21	614 614 614	20:1 20:1 20:1 20:1	Yes Yes Yes	Yes Yes Yes	No No No	460 460 460	2, 7 7, 8 7, 8 7, 8 7, 8
TC-V-8	Pak-O-P	ower uni	t provides op	eration fr	rom 6-vo	olt batter	y—list S		2V-DB1		02	135	21	614	20:1	i es	res	140	400	1,0
91	\$29.90¶	FT	B,S n available.		No	.6		1 Yes	2V-DB†		.5	135	22	3x4	21/2:1	Yes	Yeş	No	450	7
Sparks V 528-2 638-6	Vithington NS NS	n Co., J FT VT	ackson, Mich B,S B,S	5-OG 6-O	No No	NS NS	6-PM 8-PM	Yes Yes	2V-DB 6V	NS	NS	135	NS	NS	NS	No	Yes	No	NS	
588-2 688-6	NS NS	CON	B.S B.P	5-OG 6-OG	No No	NS NS	8-PM 8-PM	Yes Yes	2V-DB 6V	NS	NS	135	NS	NS NS NS	NS NS NS	Yes No Yes	Yes Yes Yes	No No No	NS NS NS	
69B	\$39.50¶ \$39.50¶	FT	B.P,S	5-G	No	1.75	6-PM	Yes	2V-DB		.56	135	20	4x5	5:1	No	Yes	No	456	
			B V. Washington	6-OG n Blvd., C	Yes Chicago,	2 III.	6-PM	Yes	6V & 110AC	2.1				4x5	5:1	Yes	Yes	No	456	
536 651 751	NS NS NS	NS NS NS	B.S. B.P.S B.P.S	5-G* 6-OG 7- O G	No No No	.7 1.6 1.6	PM PM PM	No Yes Yes	2V-DB 6V 6V	2.1 2.2	.5	135	38	Optional Optional Optional		No Yes Yes	Yes Yes Yes	No No No	456 456 456	9 3, 9
761 780 621	NS NS NS	NS NS	B,P,S B,P,S B,S	7-OG 7-OG* 6-MG*	No No	1.6 1.6 1.5	PM PM EE	Yes Yes Yes	6V 2V-DB 6V & 110AC	2.1	.56	135	41	Optional Optional	8:1	Yes No Yes	Yes Yes Yes	No No	456 456	9
336	\$29.95¶	T	Box 54, D	6-G*	No	.8	8-PM	Yes	2V-DB		.56 .56	135	22 22	414	10:1	No	Yes	No	456	
336C 67 67C 48	39.95° 34.95° 44.95 19.95°	CON	B B,S B,S B	6-G* 4-OG 4-OG 4-GO	No No No	.8 11/4 11/4 .4	8-PM 6-PM 8-PM 6-PM	Yes Yes Yes Yes	2V-DB 6V 6V 2V-DB	1.9 1.9	.36	135	22 i5	6	10:1 15:1 15:1 10:1	No Yes Yes No	Yes Yes Yes Yes	No NS NS No	456 465 465	
Westing	house Rad	lio, Mer	chandising l	Headq ua	rters, l	50 Varicl	St., Ne	w York	, N. Y.—	''Westir	ghouse	**		41/2					465	
WR604 WR605 WR606 WR607	NS NS NS NS	VT VT CON	B.S ₁ B.S B.S	5-G 6-G 4-G 5-G	No No No	11/2	8-Mag 8-PM 8-PM 8-Mag	Yes Yes Yes Yes	2V-DB 2V-DB 6V 2V-DB	3	.55	135 135 135	23 23 23	31/2 31/2 31/2 41/2	20:1 40:8:1 20:1 20:1	Yes Yes Yes Yes	Yes Yes Yes Yes	No No No No	465 465 465 465	
WR610	NS	CON T	B.S B.S , 2107 Grand	4-0	No	11/2 11/2 Mo —'	6-PM	Yes	6V	2.5		100		41/2	20:1	Yes	Yes	No	455	
D706 D708 D718	NS NS NS	CON CON T	B.P.S B.P.S B.P.S	8-OG 6-G 6-G	Yes Yes Yes	NS NS NS	10-PM 8-PM 8-PM		6V 6V 6V	2.1 1.4 1.4	::::			NS 6 6	NS NS NS	Yes Yes Yes	Yes Yes Yes	Yes No No	465 456 456	
Zenith F 4F227	Radio Corp \$24.95		Dickens Ave			Zenith		No	2V-DB	1.4	.42	135	19	4	8:1	Yes	Yes	No	456	
5F233 5F251 4B231	34.95 49.95 29.95	T CON T	B,S B,S B	5-O 5-O 4-OG	No No No	134 134 .8	6-PM 6-PM 8-PM 5-PM	Yes Yes No	2V-DB 2V-DB 6V	2.2	.66	135 135	19 19	4½ 4½ 4	8:1 8:1 8:1	Yes Yes Yes	Yes Yes Yes	No No No	456 456 456	
5J217 5J247 5J255 6J230 6J257	59.95 59.95 59.95 59.95	ACR CON T	B.S B.S B.S	5-OG 5-OG 5-OG	No No No	.8 .8 .8	6-PM 6-PM 8-PM	Yes Yes Yes	-(6V)	2.1 2.1 2.1			::::	4½ 4½ 4½	8:1 8:1 8:1	Yes Yes Yes	Yes Yes Yes	No No No	456 456 456	
6J257 7J232 7J259	79.95 79.95 99.95	CON	B.S B,S B,P,S B,P,S	6-0 6-0 7-0 7-0	No No Yes Yes	134 134 134 134	6-PM 8-PM 8-PM 10-PM	Yes Yes Yes Yes	AC	2.1 2 2 2.2 2.2	~		* * * *** * * ***	6 6 NS NS	36:1 36:1 36:1 36:1	Yes Yes Yes Yes	Yes Yes Yes Yes	No No No	456 456 456 456	
Zephyr 1 35B7	Radio Co. \$74.50	, 13139 CON	Hamilton St					Selecta						6	NS NS	Ye	Yes	No	456	
32B7 35P6 32P6	54.95 69.50 49.95	CON	B.P.S B.P.S B.P.S B,P.S	6-MG 6-G 6-G	No No No	2 1 1	61/4-PM 8-PM 61/4-PM 5-PM	Yes Yes	6V 32V 32V 6V	2 1.1 1.1	2		2012 2012 2012	6 6	NS NS NS	Yes Yes Yes	Yes Yes Yes	No No No	456 456 456	
20B3 20A6	19.95 32.95	FT FT	B,S	3-G 5-G	No No	1/2	5-PM 6½-PM	No 1 Yes			NS NS	90 135	10	3½ 6	NS NS	Yes Yes	No Yes	No No	TRF 456	



SERVICING SUPERHETS Revised edition just pub-lished shows how to moke superheterodyne repoirs

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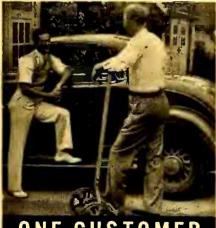
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adio Tubes

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W. W. Watts, gen'l sales mgr. at Win-charger Corp.'s big new plant.

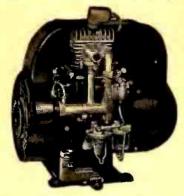
★ C. C. DeWees, radio and re-frigeration advertising manager of the Stewart-Warner Corp. of Chicago, was host at a luncheon recently attended by members of the NEMA Re-frigeration Committee at the Edgewater Beach Hotel, Chicago. James Sterling advertising manager of the Norge Corp., Detroit, Mich., officiated as chairman, and the meeting was attended by most of the advertising managers of major refrigeration manufacturing organizations.

* Harry H. Steinle, vice-president aud director of sales of Triad Manufacturing Co., Inc., Pawtucket, R. I., announces the appointment of two new factory representatives for Triad radio tubes: Merton Dobbin, of Portland, Ore., covering the Northwest territory, and James C. Pope, Jr., of Minneapolis, Minn., covering the states of Minnesota, North and South Dakota and Western Wisconsin. Both Mr. Dobbin and Mr. Pope are old-timers in the industry and are well known to the trade.

* C. J. Hunt, Stromberg-Carlson representative for the District of Columbia and Eastern Maryland and Pennsylvania, is back in harness again. Mr. Hunt, who was stricken with appendicitis at the Stromberg convention early in May, says he is feeling better than ever now.

* At the recent Radio Parts Trade Show, held in Chicago, visitors witnessed a spectacular demonstra-tion. A miniature of the "humidity test" used by Bruno Laboratories in the manufacture of Velotron microphones was rigged up. The object was to prove that these microphones function perfectly under adverse humidity conditions. A compressedair tank and a jar of heated water made up the "fog" generator, while a glass tank stored the moisture. A Velotron microphone, which was hooked up to an amplifier, was inverted in the "soup." The clarity and fidelity of response, even under these abnormal conditions, proved conclusively the stability of staticvelocity microphones.

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Everything in Auto Radio—Universal control heads . Dash mounting adapter Kits . Auto aerials . Cables and Vibrators.
Send for your FREE Profit Gulde NOW!

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TRADE TOPICS

- ★ Ed H. McCarthy has been appointed eastern division sales manager for International Radio Corp., with offices at 11 W. 42nd St., New York City. He is widely known among dealers and distributors of the area, being a radio trade veteran with long experience in former executive posts with Adler Mfg. Co., the former Grigsby-Grunow Co., Hygrade Sylvania Corp., Gibson Refrigerator Co., General Electric Co. and other leading companies.
- ★ Commander E. F. McDonald, Zenith president, has announced that a new group of officers has been named for Wincharger Corp., Sioux City, Iowa. John Albers, one of the Wincharger founders, is treasurer; Hugh Robertson, Jr., secretary in charge of production; W. W. Watts, vice-president and sales manager; and Commander McDonald, president and general manager.
- * New sales representative in the New York metropolitan area for Boonton Radio Corp., Boonton, N. J., is Harry G. Lawler. His initial activity will be introducing and explaining new Boonton instruments. Announced by the company also is the appointment of Ray Perron, Taunton, Mass., as New England representative.



Ed. H. McCarthy heads East for Kadette; he's the new division sales manager there for International Radio Corp.

* Hygrade Sylvania Corp. has announced that its Chicago sales offices are now at Suite 1256 in the Field Building, 135 South La Salle St. Sylvania tube and Hygrade lamp executives who make their headquarters in the Chicago offices are as follows: L. A. Wheelock, W. C. Mahoney, A. R. Oliver, C. E. Marshall, Sylvania tubes; R. W. Metzner, G. H. Hurley, C. S. Long, Jr., Hygrade lamps.



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Gives

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Preferred by Expert
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TRIAD MANUFACTURING CO.

INCORPORATED

PAWTUCKET

RHODE ISLAND

The Quality Name in Radio Tubes

ALTER NAMED GRUNOW PRESIDENT

* New officers of the General Household Utilities Co. have been announced by the firm's board of directors. William C. Grunow, for 5 years president of the company, is now board chairman; Harry Alter, forwards and the company of th formerly sales manager, becomes president.

Other officers elected are A. Dangler, Jr., vice-pres. and treas., and T. E. Pegrun, secretary. President Alter has announced the appointment of Sidney L. Arneson as asst,

sales manager.

At the conclusion of a recent convention Mr. Alter announced the appointment of the following as distributors of Grunow radios: Moore, Bird & Co., Denver, Colo.; Lew Bonn Co., Minneapolis, Minn.; Mericope Appliance Co., New Orleans, La.; Charles Ilfeld Co., Albuquerque, N. M.; V. Tansche Hardware Co., La-Cross, Wis.; Passman Equipment Co., Monroe, La.; Arizona Hardware Co., Phoenix, Ariz., and Majestic Sales Co., Sioux Falls, S. R. Moore, Bird & Co., Lew Bonn Co., V. Tausche Haidware, Arizona Hardware and Majestic Sales also distribute Grunow refrigerators

- Allen B. DuMont Laboratories, Inc., Upper Montclair, N. J., have sold to RCA the basic patent covering the combination of cathode-ray tube and three-element vacuum tube in a glass envelope. This device forms the basis of many tuning indicators currently used in modern receivers; DuMont has retained the right "to manufacture and sell under this patent to all fields as well as to re-license to non-radio fields."
- Representatives throughout the country have recently held a series of dealer meetings to honor the 1938 Stromberg-Carlson line. These include American Sales Co., Columbus,

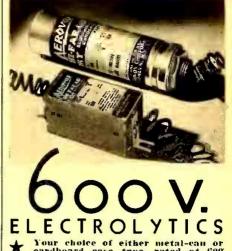
Ohio; Jenkins Mnsic Co., Oklahoma City, Okla.; Hudson Valley Asbestos Corp., Albany, N. Y.; Winne Salcs Co., Minneapolis, Minn.; Graybar Electric Co. of St. Louis and Cincinnati; Stratten Terstegge, Louisville, Ky. Meeting in the Detroit area was directed by F. M. Anibal, distributor division manager; W. H. Nolan, Chicago division sales manager, and J. A. Frye, sales representative.

A. Frye, sales representative.

Lines had previously been shown in Chicago, New York, Los Angeles and Rochester. Orders for the new line show a 165 per cent increase

over last year.

- ★ B. J. Grigsby, well-known radio figure, announces the organization of Elsbert Manufacturing Co., Inc., with Elsbert Manufacturing Co., lnc., with offices and factory at 353 West Grand Avenue, Chicago. Mr. Grigsby organized and was president of the former Grigsby-Grunow Company and will be president of the new company are: Raymond J. Grigsby, vice-president; O. E. Grigsby, secretary; and H. E. Kranz, chief engineer. The company is developing and will shortly begin manufacture of a new type of slow-speed hightorque fractional horsepower electric torque fractional horsepower electric motor; also ignition devices and systems for greater efficiency in internal combustion engines, particularly with low-grade fuel.
- James P. McIllhenny, formerly connected with General Electric Co. of Chicago, has joined the staff of Ed McCarthy, eastern division sales manager for Kadette. Besides the recent jobber meeting in Philadelphia, dealer meetings have been held in White Plains, N. Y., Newark, N. J., Newburgh, N. Y., Baltimore and Philadelphia.
- * New Kadette line was shown to eastern distributors and their sales staffs June 15-16 in Philadelphia, Vigorous promotion plans were announced and the guests heard news of a new expansion by International.



- Your choice of either metal-can or cardboard case type, rated at 600 v. D.C. working.
- Compact. Handy. Just the thing for filters subject to high surge voltages.
- Inverted serew mounting, insulated can for metal-can units. Handy "Ad-justimount" metal flanges for card-board-case units.

New CATALOG: Big. Startling.
32 - page hook.
Just issued. Ask local jobber, or write
us for copy, TODAY.





LOW PRICED MIKE

for high quality pick-ups...either directional or nondirectional

Western Electric's "Salt-Shaker" is just what you want for public address or broadcast pick-ups. Witbout the acoustic haffle, it's non-directional with it, it's directional.

Dealers: use and specify this high quality, low cost mike! Send the coupon for full details!

Distributors: Graybar Electric Co. In Canada: Northern Electric Co., Ltd.

Western Electric

GRAYRAR ELECTRIC CO., Graybar Bldg., New York. GRAYRAR ELECTRIC CO., Orașia.
Please send bulletin on Western Electric 633A Mike.
RT-7-37

State_____State____



Warren Hasemeier, sales manager for Wilcox-Gay, stops taking orders for the new Wal-radio in office finish, long enough to tune it.

NOTHING LIKE THIS NEW "TRI-POLAR"



- 1. Uni-Directional
- 2. Bi-Directional
- 3. Non-Directional

All THREE in ONE Crystal Microphone

Now for the first time—through the new Shure "Controlled-Direction" principle—you can have all three basically-different directional characteristics in one microphone—instantly available through a 3-point selector switch.

1. Uni-Directional. Wide-angle front-side pickup—dead at rear. Cuts out audience noise. Output level: 63 db below 1 volt per bar.

2. Bi-Directional. Typical velocity characteristic with pickup front and back—dead at both sides. Output level 68 db below 1 volt per bar.

3. Non-Directional. Full 360-degree all-around pickup for group presentations and general applications. Output level: 53 db below i volt per bar.

For complete information, write for Bulletin 145T.

Shure patents pending. Licensed under Patents of the Brush Development Company.



JOBBERS IN JULY

(From page 28)

Radio Sales & Service Co.,

Columbus, Ga.

Radio Parts Dist. Co., Norfolk, Va. Radio & Sound Service.

Knoxville, Tenn. Shuler Supply Co., New Orleans, La. Stratton Radio Co..... Tulsa, Okla. Specialty Dist. Co..... Atlanta, Ga. Tenn. Valley Elec. Appliance

Nashville, Tenn. Thurow Radio Dist Tampa, Fla.

F. A. Morris of the Specialty Distributing Co., Atlanta, Ga., was appointed temporary chairman, and J. C. Jordan of the same organization was named temporary secretary and treasurer.

Discussion was general as to policies, purposes, and problems, and among requirements for membership were:

"That jobber's net worth be at least \$5,000, with a minimum inventory of \$2,500 net jobbing cost.

"That 75 per cent of his sales must be at wholesale for resale purposes, amateur equipment included.

"That the distributor member would follow the manufacturer's suggested resale schedule.

"That each distributor will report to the association any deviation or variation from manufacturer's established policies or principles, and that all members be notified.

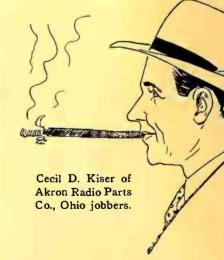
"That all work together as a harmonious unit to promote fair dealings and practices for a legitimate profit. and to further the interest as a whole."

* At the Universal Radio Supply Co., the Louisville, Ky., jobbers who distribute Howard sets and Ken-Rad tubes, two new representatives have been named: J. P. Price and R. C.



Jobber Allan G. Wood, Standard Radio Co., Waco, Tex.

- Distributors for Emerson who held dealer meetings early this month to honor the company's new line and its merchandising plans include: Superior Auto Accessories Co., Pittsburgh, Pa., Electrical Specialties Co., Detroit, Mich.; Buhl Sous Co., Toledo, Ohio; Electrical Products, Inc., Washington. D. C.; Buhl Sons Co., Grand Rapids, Mich.; Krauss Distributors, Inc., Dayton, Ohio; and Buhl Sons Co., Kalamazoo, Mich.
- * New deferred payment plan has been announced by Wholesale Radio Service Co., 100 Sixth Ave., New York City. Plan benefits those wishing to buy home and auto radios, amateur transmitters and receivers, P.A. equipment and test instruments. Periods of 6, 9 or 12 months are offered.
- * Ward Leonard has announced that the area now covered by its representative, W. Bert Knight, Inc., 115 W. Venice Blvd., Los Angeles, Calif., has been extended to include all of the state of California.





- ★ Long list of dealers in outlying districts around Toledo, Ohio, have been lined up by Crosley jobbers there, Aitken Radio Corp. James E. Altken, president, says the business conditions in the area are vastly improved.
- * Mid-West Associated, Rockford, Ill., distributors, have a new address. 506 Walnut St., where the company presents a new and more complete stock of radio supplies. Recently appointed salesman is R. C. Leatherberry, formerly with Radio Distributing Co., Indianapolis, Ind.
- * Kempton & Co., Santa Barbara, Calif., jobbers, are now distributors for the state of California for Port-A-Fones, made by Electronic Devices, Inc., Cincinnati, Ohio.
- * New manager of the appliance division of Hughes-Bozarth-Anderson Co., Grunow jobbers of Oklahoma City, Okla., is C. A. Lindewell.



R. H. Duncombe, representing J. V. Duncombe Co., Erie, Pa.

- * Several hundred dealers went to lively Sparton meeting early this month at the Excelsior Radio Co., Harrisburg, Pa. Affair was staged by that firm along with the Goldman & Adams Distributing Co., Reading, Pa., and Williamsport Radio Distributors, Williamsport, Pa. Important at the meeting were E. T. H. Hutchinson, Sparks-Withington sales manager; Howard Clark, district sales manager, and Harry L. Myers, Excelsior exec who is specially enthusiastic about Sparton dealer acceptance in his areas.
- * General Electric Supply Corp., Omaha, Neb., has been the recent host at a series of dealer meetings in Sioux City, Omaha and Des Moines. Heads of the distributing organization are A. H. Luebbe, district manager, and D. A. Kelly, district appliance sales manager.

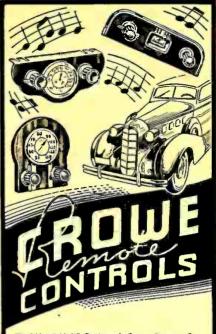


Joseph A. Demambro of Boston's Radio Transformer & Condenser Co.

- * Activity at the Zenith jobbers Trilling and Montague, Scranton, Pa., has increased to the extent that the company has needed a new location. New lay-out is at 600 S. Washington Ave., where the firm will enjoy all modern improvements.
- ★ Granow jobbers J. H. Burke Co., Boston, have staged a 2-day showing of new lines for the trade. Stunt was held in connection with the annual New England Radio and Electrical Trade Show.
- ★ Sketches of prominent jobbers on these pages are the work of Lew Merrell and are used through the courtesy of National Union Radio Corp.



Jack Bannon of Radio Distributing Co., Indianapolis.



DOUBLE-UNIT Design of Crowe Remote Controls appeals alike to jobber and service man.

Finer appearance—easier installation—elimination of instrument panel mutilation—smoother operation—these are a few of its advantages.

It permits supplying each car manufacturer's official style of dial (airplane or porthole) with the panel mounting kit! Little time is required to assemble at bench, put assembly in place from rear of panel, clamp in place and attach knobs.



Here's all you need: 1. Tuning Control Unit. 2. Volume Control Unit. 3. Panel Mounting Kit.



Quickly assembled at bench—not in crowded driver's compartment!



Fit your instrument panel without mutilation. No sawing, filing or drilling

Six gear ratios and other optional choices such as power switch, two-point or variable tone control, sensitivity switch, wave-band selector, are added features.



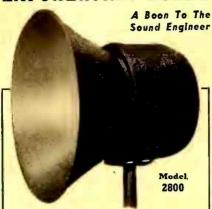
ASK FOR BULLETIN 202 which contains complete details.

PHILCO DEALERS! Ask for Bulletin 201, especially for you!

CROWE NAME PLATE & MFG.CO.

1771 Grace Street
CHICAGO, ILLINOIS

METALEX EXPONENTIAL HORNS



Steel for Wear
 "Ex" for Objectionable Resonances

These efficient exponential horns should not be confused with the so-called parabolic units.

bolic units.

Spun from steel and coated with the material "Ex" which eliminates all objectionable resonances, they give the finest type of reproduction and almost unlimited wear. Stocked in 3 different sizes.

Write for literature on these horn innovations.
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 Representation

Wm. F. Kelly Co., 1207 Bay St., Toronto, Ontario
Taylor & Pearson, Ltd., Edmonton, Alberta

'ASK ANY MECHANIC" he'll tell you

THIT'S QUALITY
YOU'RE
LOOKING FOR,
REMEMBER
THE NAME
KRAEUTER

You can't do a good job with poor tools. It pays to buy the best. The Kraeuter Line has always been the favorite of experienced ra-

dio mechanics. And these tools will help YOU turn out better work with less time and trouble. For full information write: Kraeuter & Company, Dept. "T".



No. 1661 — NEEDLE NOSE SIDE CUTTING PLIERS. A fine slender nosed, tapered point plier especially handy for the radio nanufacturer or repair man. 6" only.

No. 1821 – ELECTRICIANS HEAVY DUTY PLIERS Just the thing for general wiring work. Strongly constructed with stardy wire cutters. 47 to 8" sizes.

KRAEUTER & CO. (Pronounced KROY-TER) NEWARK, N. J.

Manufacturers of Highest Quality Pliers and Tools Since 1860

JOBBER NEWS

- * E. L. Crabb, popular executive of the S. A. Long Electric Co., Zenith jobbers of Wichita, Kan., has announced that current orders for new sets in his area are double the corresponding totals of last year. Long firm has finished a series of dealer meetings in Wichita, Dodge City, Hays, Abilene, Beloit, Chanute and Independence, all in Kansas.
- ★ Climax Machinery Co., 121 E. Morris St., Indianapolis, Ind., have recently named these as distributors for the firm's air conditioners: Federal Distributing Co., Kansas City, Mo.; Old Faithful Heater Co., Chicago, Ill.; Gambill Distributing Co., Nashville, Knoxville and Chattanooga, Tenn.; Machine Tool & Supply Co., Tulsa, Okla.; Orient Air Conditioning & Commercial Refrigerating Co., Jersey City, N. J.; A. A. Uhhalt, Dallas, Tex.
- * W. D. Rowlands is the new president of Major Appliances, Inc., the Florida distributors whose headquarters are at Miami, with branches at Tampa and at Jacksonville. Rowlands purchased interest and stock in the firm from H. E. Markland, company official who has resigned. George Gray, recently a district sales manager for Leonard, is general sales manager in place of Markland. Herb Breinan, former vice-pres. of Gross-Brennen, Inc., N. Y. C., is chief of the radio division of RCA radios.
- ★ Max Miller, W9DMF, has been named as manager of stock and counter sales at Lyon-Wyatt Radio Co., Wichita, Kan.
- * Giant meeting of all sales and executive staffs of F. B. Connelly Co., Grunow distributors for Washington, Oregon, Idaho and Montana, was held recently in Seattle, Wash. Sales plans were made for the rest of the year, a record one for the firm.
- ★ According to news from Lee McCanne, radio sales manager for Stromberg - Carlson, distributorship franchises have been granted to 3 firms: Graybar Elec. Co., Indianap-



A. H. Luebbe, dist. mgr., left, and D. A. Kelly, sales manager of the GE Supply Corp., Omaha, Neb., have just completed a series of dealer meetings in Sioux City, Omaha, and Des Moines.

olis, to cover central Indiana; Hughes & Co., Spokane, for western Montana, northern Idaho and eastern Washington; and Graybar Elec. Co., Seattle, to operate in western Washington.

- * H. M. "Herman" Weber has joined the sales staff of Johnson Distributing Co., Crosley wholesaler of Tampa, Fla. Long an expert in merchandising major appliances, Weber will cover the Florida West Coast area for Johnson.
- * Harry Wise, with 13 years experience, is the new store manager at Capitol Radio Wholesalers, Washington, D. C.
- * Howard & Johnson, Arizona sound equipment distributors and specialists, have announced an enlarged staff: R. J. Howard, sales engineer; L. L. Johnson, supervisory engineer; F. H. Tillotson, motion picture installation manager; and Clell Chambers, transcription manager. Headquarters are at 1115 E. 6th St., Tucson; laboratory shops at Willcox, Ariz.

(To page 71)



Emerson distributors convene and converse—starting with the center gent and circling left: Herbert Krauss, Radio Distrib. Co., Cincinnati; Morris Krauss, same firm; Carl Schmidt, Elec Specialties Co., Detroit; M. Wallace, same firm; Chas. Strawn, Buhl Sons Co., Grand Rapids, Mich.; Martin Zatulov, Emerson traveling rep.; Jack Richardson, Columbus Ignition Co., Columbus, Ohio; L. N. Bloom, B. W. Smith Co., Cleveland; Walter H. Wilson, same firm; and Lawrence Willenbrink, Sutcliffe Co., Louisville, Ky.

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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.



- * Graybar Electric Companies of Richmond, Va.; St. Louis, Cincinnati and Dallas were recent hosts to their respective dealer groups at feature showings of the new Stromberg-Carlson line. Richmond firm also gathered its branch managers from Norfolk, Roanoke, Winston-Salem, Charlotte and Asheville for a sales meeting.
- Crosley distributors from Philadelphia, Newark and Baltimore met at Green Hill Farm near Philadel-phia recently to see new 1938 radios. Attending were David Slobodien, president; Fred Goldberg, general manager, and Harold M. Bergman, sales manager, Apollo Distributing Co., Newark, N. J.; C. Howard Buchwald, president, and Lon Fox, sales manager, Lincoln Sales Corp., Baltimore, and Pete Halley, branch manager of the Washington office of Lin-coln; J. T. Peirce and W. G. Peirce, Peirce-Phelps, Inc., Philadelphia, and J. E. Alexander, of the Harrisburg branch of Peirce-Phelps. Entire sales staffs of the 3 distributing houses were also present. Crosley sales and advertising program for the coming radio season were outlined by Thomas W. Berger, general sales manager, and Frank J. Hogan, Jr., district manager, Crosley Radio Corp.
- * Watson & Wilson, Inc., Los Angeles, Calif., are in the midst of two special merchandising campaigns, aside from their consistent promotion of Grunow radios. A. M. Lucas, sales promotion manager for this jobber, reports "a successful season with Grunow refrigerators" and also current emphasis on L & H electric ranges. Company has recently taken on exclusive distributorship in southern California for the American Beauty washing machine, which is made by Getz Washer Co., Morton, Ill.
- * Recently appointed by J.F.D. Mfg. Co. to call on jobbers and manufacturers throughout New England and New York state is Michael Wolfe.



National Union's new general sales mgr., Homer H. Kunkler.

- * M. K. Smith is the new Utah sales representative in the southern states; he will handle the area including Alabama, Florida, Georgia, North Carolina, Tennessee and South Carolina. His office is at 440 W. Peachtree St., N. E. Atlanta, Ga.
- * At recent convention of radio dealers in Havana, Cuba, Thomas F. Joyce, RCA Victor advertising manager, was one of the principal speakers. Other RCA export execs, including E. J. Anzola, Ovid Riso, Henry Kasher, William J. Avery, John Miguel and G. A. Biono, are currently active in Mexico, Hawali, the Philippines, China, India, Central and South America, London and the Mediterranean area.
- * Stimpson Sales & Investment Co., Crosley jobbers of Wichita, Kan., have taken on Bendix-Dayrad products, according to an announcement by Roy K. Nighswonger, company official. Firm head is E. L. Stimpson and another executive is George H. King.

- * Ward Leonard Electric Co. have named several new representatives: John S. Clark, Box 143, Station A, El Paso, Tex., for the eastern half of Arizona, the state of New Mexico, and western Texas; Triangle Equipment Co., 50 Church St., New York, N. Y., and 330 S. Jefferson St., Chicago (New York office managed by R. B. Anderson will cover metropolitan areas and New Jersey; Chicago office run by R. W. Anderson will handle Wisconsin, eastern Iowa, Illinois and northern Indiana); and the Brance Krachy Co., Inc., 4411 Navigation Blvd., Houston, Tex., to cover southeastern Texas.
- * C. R. Ogle, recently secretary and sales manager of the B-L Electric Manufacturing Company, has joined the sales organization of P. R. Mallory & Co., Inc., Indianapolis, Ind., manufacturers of rectifiers, battery chargers, radio, electrical and metallurgy products. Mr. Ogle, whose activities in the electrical field cover a period of over twenty years, will be associated with the rectifier sales activities of the Mallory Company, which has pioneered in rectifier development and holds many basic patents under which its product is manufactured. Mallory Rectifiers now operate many types of D. C. devices, such as pin game power packs, relays, speech amplifiers, signal and time devices. Mallory engineering and research has recently opened up many new applications, such as heavy-duty battery charging for railway cars, motion-picture projection are power supply, electroplating, and others still in the development stage.
- * Fred N. Anibal, manager of Stromberg-Carlson's distributor division, recently led dealer meetings at which the new Stromberg-Carlsons were presented for the Graybar Electric Co. of Richmond, Va., and the Dinkins-Davidson Hardware Co. of Atlanta. He will complete his swing through the South with visits to Jacksonville and New Orleans.
- * "Our distributors' convention was a tremendous success in every way," reports Ernest Alschuler, president, Sentinel Radio Corp. "We were highly gratified at the exceptionally fine spirit shown by our distributors and their unqualified enthusiasm for the new 1938 line. Orders booked exceeded by a large percentage our expectations and our distributors were unanimous in their predictions of substantial increases in business over last year."

 Meeting was held at the Medinah Athletic Club, Chicago, June 21-22, and featured socially the Sentine!

Meeting was held at the Medinah Athletic Club, Chicago, June 21-22, and featured socially the Sentinel family party Monday night. Guests also attended the Braddock-Louis fight as part of the affair. Rad-O-Phone, a new development which makes Sentinel a double-purpose radio, acting as a 2-station telephone or intercommunicating system as well as a radio, was vigorously acclaimed by the distributors.

★ Shure Bros., 225 W. Huron St., Chicago, have just published a new and completely revised 6-page catalog of microphones and acoustic devices. Copies are available on request.



Sales huddle at a Grunow table—seated, left to right, Sales Mgr. Lindevahl of Hugh-Bozarth-Peters, Okla. jobbers; V. P. Finger, Grunow dist. mgr.; E. H. Bozarth of the Okla. firm; G. Schey, Monroe, La.; A. L. Cowles, Wright & Crosby, Minneapolis jobbers. Standing: T. C. Jones and W. A. Meyer.

You're on the Way to Bigger Sales and Greater Profits





SEE YOUR G-E RADIO DISTRIBUTOR FOR COMPLETE DETAILS. GET READY FOR A RECORD-SMASHING YEAR

with the NEW G-E Radio

You'll do more business with the General Electric Radio line this season because G-E has built into its new 1938 line a long list of timely and effective improvement features — features which meet definite market demands leading to enlarged sales opportunities. Take, for example, the new G-E TONE MONITOR — a radio circuit of radically new design. This amazing and exclusive G-E Radio feature brings out the high and low notes of each orchestral instrument — with a fidelity that is new and startling. The TONE MONITOR is not confined to the higher priced G-E Radios alone. All models, except the five tube sets, offer this new feature.

GENERAL ELECTRIC backs its new, sensational, RADIO line with the heaviest and most concentrated national magazine advertising schedule and newspaper advertising campaign in its history. Everything about the G-E Radio Sales Promotion Program is complete, dramatic, and sales-compelling.



Listen and Compare the Difference

Motorola HOMERADIO

IT'S NEW!
IT'S DIFFERENT!
IT'S BETTER!

A "stand out" line of distinctive models with highly competitive prices that provide you with complete coverage in all price brackets at a minimum investment. Motorola provides 19 new models ranging from the deluxe 12-Y-1 down to the 5-tube, 3-gang. 2-band table model. Push-Button Electric Automatic Tuning that really works! Included in the line is a unique Phonograph-Radio Combination. Modern End Tables, AC-DC and Farm Models.



MODEL 6-Y

THE HOTTEST 6-TUBE CONSOLE VALUE FOR 1938

6-Tube 3-Band Superheterodyne AVC
Acoustic Amplification and Acoustic Phasing
Two more octaves of clear resonant bass response
Talking Dial—Individual Band Framing—3-Gang Condenser
49, 31, 25, 19, 16 and 13 Meter Bands
8" Super-Fidelity Speaker—In a big handsome cabinet

MODEL 9-A

THE MOST OUTSTANDING ARMCHAIR MODEL IN THE INDUSTRY TODAY

9-Tube . . . 3-Band Superheterodyne . . . AVC
Talking Dial . . . 3-Gang Condenser
Acoustic Amplification and Acoustic Phasing
Providing two more octaves of true bass response and more
volume than ever needed
Individual Band Framing . . . Electric Tuning Eye
49, 31, 25, 19, 16 and 13 Meter Bands

12" Super-Fidelity Speaker

In the most convenient armchair cabinet yet produced

for a new-different-and better proposition See Your Motorola Distributor

CALVIN MF6. CORPORATION — CHICAGO