

JULY - 1938




WHAT DOES THE RADIO SAY?

To the farmer radio is a working tool, essential as a plough . . . Market prices, weather warnings, are its most valued output . . . New sets, like new tools, give better, more economical service

IN THIS ISSUE... Farm Market Facts... Map of REA Lines... Main Street and Sound... Sets for Swap... Battery Radio Survey

For Longer Life and Better Performance

Insist on Mallory Replacement Vibrators!



Millions in Use

Trouble-Free Long Life

Lowest Cost per hour

Absolute Freedom from Broken Reeds

Priced as low as ordinary products

Positive Starting

Leading Choice of Equipment Manufacturers

No Lead Breakage or Corrosion

MALLORY
TYPE 294
Serial 716950
FOR USE ON 6 VOLT BATTERY
P. R. MALLORY & CO., Inc.
Indianapolis, Ind.

From every angle there is no greater assurance of complete satisfaction on any radio replacement part than the Mallory insignia. Yet they cost no more than ordinary products.

Mallory Replacement Vibrators are built by the most highly specialized group of technicians in the industry. Mallory not only pioneered vibrators for automobile radios but

has always led in all new developments in the vibrator industry.

For recommendations by receiver's make and model number, ask your distributor for folder E-551, or consult the Mallory-Yaxley Radio Service Encyclopedia (Second Edition). Ask your distributor for free copies of RADIO IN 1938 CARS. You'll find it well worth reading.

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MALLORY
REPLACEMENT
CONDENSERS...VIBRATORS

P. R. MALLORY & CO., Inc.
INDIANAPOLIS, INDIANA

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RADIO RETAILING

JULY, 1938

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SALES STATIC . . . Oh, we're just shopping around



MILT KOSTIN

Still the MOST ECONOMICAL RADIO POWER



3650 Hours
For **50¢** A YEAR
POWER
OPERATING COST

NEVER any need to cut down on listening hours when a Wincharger powers the radio. For power costs Wincharger owners next to nothing—makes 10 radio hours a day as cheap as one—and ALSO gives *extra* power for lights, a fan, an electric fence or razor, and for recharging car, truck or tractor batteries—all at no extra cost!

No Dry Batteries—No Replacements—

Yes, wind-power is “FREE POWER”—plentiful, cheap and always dependable provided it is generated by the original Wincharger with its exclusive CROSS-BAR GOVERNOR and with 1939 features yielding up to 30% *more* power.

**Endorsed by Leading Radio Manufacturers
for Best Results with Farm Radios**

WRITE OR WIRE FOR COMPLETE DETAILS AND NEW BOOK “CLOSE FIGURING”

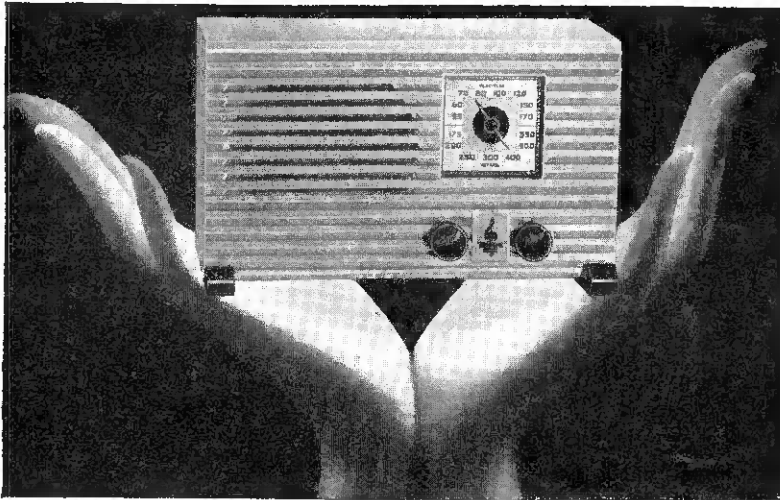
WINCHARGER CORPORATION SIOUX CITY, IOWA

World's Largest Manufacturer of Wind Electric Equipment

Announcing . . . with PRIDE . . . the New 1939 Line of

Emerson

"WORLD'S BIGGEST SELLING LITTLE RADIO"

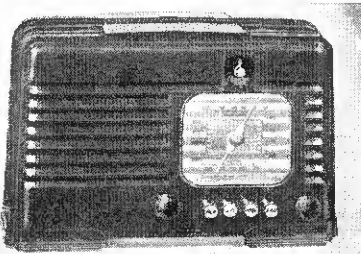


Model AX-211 (Ivory and Walnut) with "Miracle Tone Chamber." 5-Tube. AC-DC Superheterodyne. (7-tube performance.) American Broadcasts and Police Calls . . . Electro Dynamic Speaker . . . Automatic Volume Control . . . Beam Power Tube . . . Built-in Antenna . . . In Walnut. **\$9.95**
(In Ivory—\$12.95.)

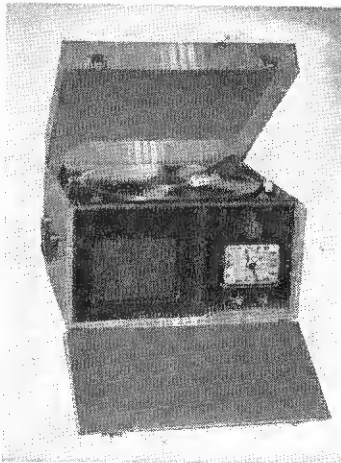


All New Features!

- "Miracle Tone Chamber"
- "Miracle Dial"
- "Miracle Instamatic Tuning"
- New STYLING



Model BB-208. With "MIRACLE TONE CHAMBER" and "MIRACLE INSTAMATIC TUNING." 5 Tubes (incl. ballast tube) AC-DC American Broadcasts, Police Calls . . . Electro Dynamic Speaker . . . Automatic Overload Control . . . Gemloid Dial . . . Beam Power Tube . . . Built-in Antenna. **\$14.95**
Walnut Bakelite Cabinet.



Model AX-222. Portable Combination Radio-Phonograph. 5 Tubes. AC-DC Superheterodyne. (7-tube performance). American Broadcasts, Police Calls . . . 6-inch permanent Magnet Dynamic Speaker . . . Automatic Volume Control . . . Gemloid Dial . . . Built-in Antenna . . . Phonograph: Self-Starting Motor . . . Crystal Pick-up . . . Plays 10-in. and 12-in. records. **\$59.95**

69 Models, \$9.95 to \$219.95

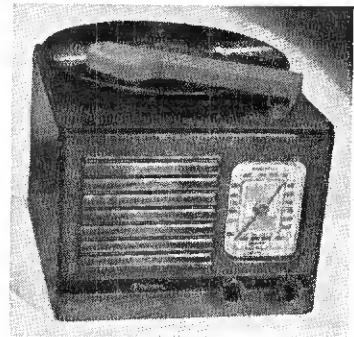
Same Price Everywhere in U. S. Get the COMPLETE 1939 Emerson story now—ALL of the facts—all details of discounts, advertising and dramatic promotion.

Write or Wire Your Emerson Distributor

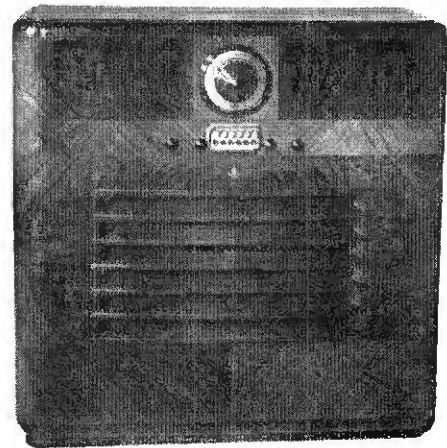
Starting Off at a Price of

\$9.95!

For "Little Miracle" Superheterodyne (5 Tubes — 7-Tube Performance)



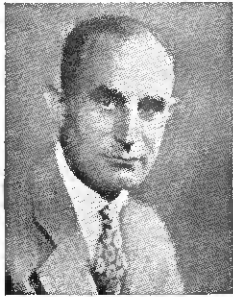
Model BM-216. Radio and Phonograph with "MIRACLE TONE CHAMBER." 5 Tubes (incl. ballast tube) . . . AC . . . American Broadcasts and Police Calls . . . Electro Dynamic Speaker . . . Automatic Overload Control . . . Beam Power Tube . . . Built-in Antenna . . . Phonograph: Synchronous A C Electric Motor . . . Crystal Pickup . . . Plays 10 in. and 12 in. records. Hand-rubbed walnut finish cabinet. **\$19.95**



Model BR-226—Symphony Grand—With "MIRACLE TONE CHAMBER" "MIRACLE DIAL" "MIRACLE INSTAMATIC TUNING". 13-Tube High Fidelity AC Superheterodyne . . . American and Foreign, 16 to 555 Meters . . . 10" Dynamic Speaker . . . 15 Watts Output . . . Automatic Volume Control . . . Continuous Tone Control . . . Dynamic-Coupled Power Output. Band Indicator . . . Phonograph Pick-up Terminals. Hand-rubbed figured butt walnut console of Staybent Construction.

EMERSON RADIO AND PHONOGRAPH CORPORATION, 111 8th Avenue, New York, N.Y.
"World's Largest Maker of Small Radios" Cable Address, EMPHONOCO, New York

HERE'S THE "Money Line" FOR 1939



F. A. D. ANDREA, radio pioneer, former President of F. A. D. ANDREA, INC., and now President and owner of ANDREA RADIO CORP.

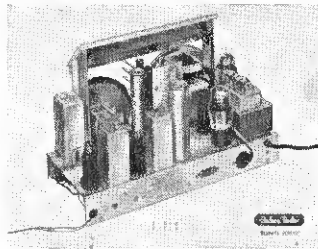
F. A. D. ANDREA re-enters the domestic radio field with the greatest line he has produced in 20 years...

A MERCHANDISING PLAN PROFITABLE TO JOBBERS AND DEALERS

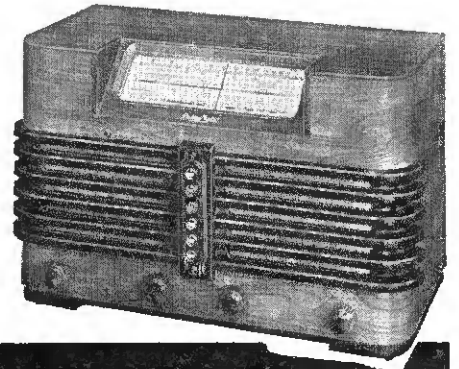
AUTOMATIC Push-A-Button tuning — "Climate Sealed" construction — the most beautiful cabinets in the industry — a proved merchandising policy that assures jobbers and dealers adequate profits without dumping, price cutting — that's what Frank Andrea offers his

many old friends in the domestic radio field.

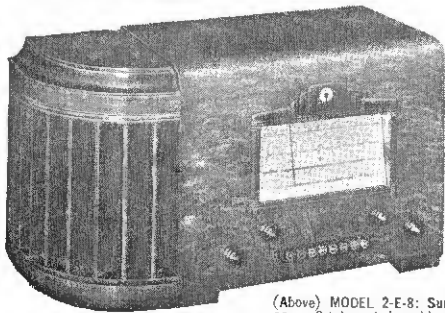
The new Andrea line for 1939 is the result of tests made under the most difficult reception conditions in over 90 countries throughout the world. Tremendous investments have been made in research, in engineering and in new circuits, to produce America's finest radio receivers.



The distinctive mechanical construction which has characterized Frank Andrea's designs for 20 years

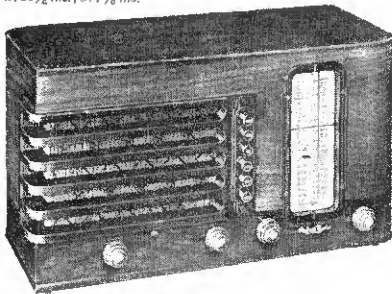


MODEL 2-E-6: Most admired among all 1939 table models is this distinctive Andrea 6-tube, 3-band receiver available for AC or AC-DC. H. 10 3/4 ins., W. 17 1/4 ins., D. 9 3/4 ins.



(Below) MODEL 14-E-6: Six-tube model that packs the power of last year's 8-tube sets. Walnut and rosewood cabinet of rare beauty. H. 9 ins., W. 16 1/2 ins., D. 7 3/4 ins.

(Above) MODEL 2-E-8: Super-power 8-tube set, in cabinet of rich, classic design. Dial has Andrea "Talking Lights." H. 12 3/4 ins., W. 19 1/4 ins., D. 9 3/4 ins.



MODEL 8-E-11: Startling innovation! Phono-radio with "Andrea Disappearing Turntable" — beautiful, convenient, original — the feature combination of 1939. Available for AC or AC-DC. 8 or 11 tubes AC, 12 tubes (plus 3 ballast tubes) AC-DC. H. 40 1/4 ins., W. 26 ins., D. 15 3/4 ins.



Push-a-Button Automatic TUNING Instantaneous and trouble-free CLIMATE SEALED

Tested from Equatorial Africa to the far North. Impervious to temperature change, humidity and salt water dampness.

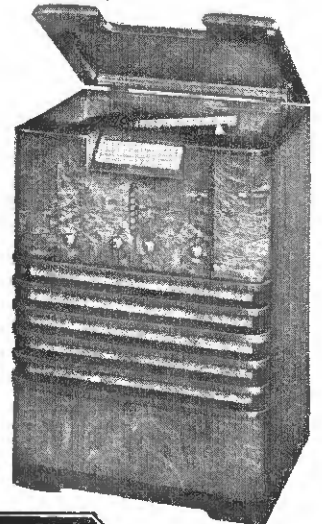
THERE'S MORE MONEY IN RADIO WITH THE ANDREA LINE

"To produce a fine radio receiver is only part of the obligation of a manufacturer, as I see it. Equally important is the obligation to so conduct the business that it is profitable to jobber and dealer. Much of the success of my former company — while under my ownership and management, was due to my recognition of this vital principle. The same sound policies prevail at Andrea Radio Corp. You'll find it literally true that 'There's more money in radio with the Andrea line'."

F. A. D. ANDREA

Jobbers and dealers, don't delay. Phone, wire or write for full details today. Address ANDREA RADIO CORP., 4825-48th Ave., Woodside, Long Island, N. Y.

MODEL 4-E-6: phono-radio features Andrea type sloping dial. MODEL 4-E-6 console has top compartment where turntable and pick-up can be installed subsequently. AC or AC-DC models available. H. 34 3/4 ins., W. 24 ins., D. 17 ins.



Andrea Radio

SPAIN



INSURGENTS *and* LOYALISTS BOTH USE COMMUNICATIONS RECEIVERS EQUIPPED WITH **RAYTHEON Tubes!**

TORN by civil strife, Spain is a proving ground for the finest of modern armament and equipment. In this bitter, desperate struggle both factions rely on RAYTHEON tubes to maintain communications between front lines and headquarters.

When you replace a tube in a radio set, the fate of thousands of lives does not hang in the balance. The set doesn't have to operate perfectly, instantly, and over a long period of time! But if your time is worth money, and your customer's satisfaction is important, your Jobber can supply you with the identical tubes that both armies in Spain have found to be the most dependable! And they cost no more!

RAYTHEON

CHICAGO • NEW YORK • ATLANTA • NEWTON, MASS. • SAN FRANCISCO

"WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS"



HARRY BOYD BROWN
National Merchandising
Manager of Philco

MYSTERY CONTROL WILL DELIVER THE RADIO PROSPECTS OF AMERICA TO THE PHILCO DEALERS

MORE than 6 million people will buy home radios during the next 12 months—and more than 4 million people will buy home radios before January. This is the inevitable home radio market for this coming season.

And the vast majority of these millions of radio buyers—in fact, everybody who is even thinking of buying a radio—will certainly want a demonstration of Mystery Control. Wouldn't you?

This means that the fascination, the magic, the wonderful convenience of *Mystery Control will deliver the radio prospects of America to the Philco dealers.* And you and all the other radio merchants will be surprised at the vast number of people who will gladly pay the higher price for those great Philco models.

But in any event—after a demonstration of Mystery Control—no matter what price radio the prospect may decide to buy—no matter what size—what type or what model—*it then certainly should be a Philco.* The public will naturally demand a product—a radio model made by Philco—the recognized leader in the radio industry—the creators of Mystery Control.

And what a marvelous line of Philco radios in every price bracket! Perfected instant Push-Button Tuning models—Furniture models—Table models—Compacts—superb Radio Phonograph models. And Farm radios almost as revolutionary and amazing as Mystery Control itself. Unparalleled radio values for every market—priced to meet conditions—bound to sell in volume.

Yes, and due to Mystery Control—Radio has again become a Major Appliance business. Higher priced—more profitable units will now be sold—thanks to the genius and resourcefulness of Philco engineers.

Thousands of radio dealers—year after year—have sold Philco exclusively. They have done so because the tremendous public demand for Philco made it possible—practical—profitable. *And every retail merchant knows that the secret of radio profits lies in fast turn-over on the least possible inventory and investment.*

And now—above all times—the wise radio dealer can concentrate his investment and his selling effort on ONE single line—on Philco. The overwhelming public demand for Philco plus Mystery Control—plus amazing price values throughout the entire Philco line for 1939—has created for the radio dealer the perfect business situation—small investment and fast turn-over. *And it is exactly that combination—small investment and fast turn-over—that brings real net profit in the retail radio business.*

Harry Boyd Brown

PHILCO

The RADIO MONTH

JULY

1938

10-Billions Farmer's income last year was slightly over ten billion dollars, says the Bureau of Agricultural Economics. For this year, barring unforeseen changes, the size of crops promises to equal or exceed last year's totals; prices on farm products have shown real recovery from their recent depression levels; government payments to farmers are climbing steadily. In other words, it looks as if this might be another Ten Billion Dollar year.

That's a lot of money for a single class of radio buyers to have in sight. It holds such big opportunities that specialization of sales efforts is recommended to every radio dealer who can tap rural territory. And with sales specialization must come well-planned concentration on rural buyers.

The business is there to be had, but you have to go after it.

Tube Tableau Into the farm field with dramatic suddenness comes a new, unheralded, series of tubes with 1.4 volt filaments. Designed to conserve both "A" and "B" batteries to an even greater extent than existent 2 volt types, a potent factor in the replacement market, they will unquestionably stimulate to greater activity both the rural receiver business . . . and the battery business.

To engineers in the latter field, working with set designers, must be relegated much of the responsibility for making these new tubes a lasting boon. For the maximum economy of battery drain can only be realized when both "A" and "B" batteries are fully squeezed of useful life before the discard. The ultimate consumer will only save important money when reasonable standardization of accessories for distributor and dealer stocks permits mass production and merchandising economies.

Television Truth Last month, in New York, a flurry of publicity on television. Experimental broadcasts. A new company—no background in the

radio field—offers a low-priced video receiver. A large retailer scrambles for his chance, finds a set, advertises it to the public. Department stores jump in, announce public demonstrations.

Then—the announcement that the experimental broadcasts would be discontinued to permit technical improvements. The sudden ending of the flurry clearly demonstrated one important point, viz: without broadcasts—no reception—no set sales.

Until powerful and unfailing interests underwrite the tremendous cost of providing programs *regularly* there can be no market for receivers. Meanwhile—*let's sell radio sets.*

Broadcast Bolt Vigorously worded resolution of the Northern California Broadcasters' Association demands that radio set manufacturers stop making sets with only push-button tuning.

It is contended that limiting the listener to a few push buttons, without manual tuning, "is not in the interest of public convenience and necessity," and may tend toward "possible elimination of local and regional independent radio stations."

Evidently those broadcasters have elected to forget that most push buttons can be set very easily to suit the particular program preferences of each listener, also that all the dials in the world are not going to make anybody listen to a bad or unpopular program.

In other words, dials or push buttons, the listener is King, and it's the quality of the program that determines preference, not the method of tuning.

Advance To The Rear Doing the sound business no good is the recession tendency of certain matched unit proponents to equip quality amplifiers with low grade microphones and speakers. Reason for this strange advance to the rear in policy is obviously a desire to reduce overall equipment prices without materially nicking the

factory's amplifier profit. The trick is to squeeze accessory suppliers.

Continued, this course could quickly nullify the progress made in the last two years, once again encouraging soundmen to home-roll equipment. Better, we think it would be, for amplifier manufacturers hesitant to advertise reasonable matched unit lists to sell "less accessories." In such cases the complete unit idea might be retained by boosting the good mikes and speakers of specializing and non-competitive companies.

Testers With Tongues From the Chicago parts show we return to our desk with the definite impression that instrument manufacturers have endeavored this season more than ever to design apparatus which will convince the consumer as well as the serviceman. Tube-checkers readable from both sides of the counter, push-buttons implying less hocus-pocus of adjustment, color schemes that catch the lay eye and, perhaps most important, complete shop benches, furniture and matched equipment racks were everywhere in evidence.

Let testers do the selling job if they can, say we. Think of their effect on the consumer as well as their use to you when buying. Glorified instruments are certainly doing a job for doctors, garages. Somehow, the average customer will believe a meter, however much he may be inclined to doubt the man who operates it.



EDITOR

Mr. Dealer, let's

MOW 'EM DOWN

WITH THE

New

Majestic

MIGHTY MONARCH
OF THE AIR!

CHARLIE Mc CARTHY!

THE 2 MIGHTY MONARCHS OF THE AIR!



**A 6 TUBE
SUPERHETERODYNE**

Approved By National Board of Fire
Underwriters

*Not a Novelty, but
a Real Radio!*

**MY, MY, MY! I'M ON THE AIR! IN THE
MOVIES! NOW MILLIONS WILL WANT
ME IN THEIR HOMES!**



A 4 foot full color CHARLIE Mc CARTHY display which holds an actual MAJESTIC-CHARLIE Mc CARTHY RADIO is available to all dealers.

7,800 theatres throughout the country will feature a display of the MAJESTIC-CHARLIE Mc CARTHY RADIO in connection with Universal's new production, "A Letter of Introduction", starring Charlie McCarthy, Edgar Bergen and a galaxy of other Hollywood stars.

**ON DISPLAY JULY 5TH TO 16TH,
Suite 1117, American Furniture Mart, Chicago**



MAJESTIC RADIO & TELEVISION CORP.,

2600 W. 50th ST., CHICAGO, ILL., U. S. A.

Export Sales Office—330 S. Wells St., Chicago Cable: "Majestic—Chicago"

Meissner Announces

A New 1938 Line of Kits and Parts

ADAPTER KITS

AMATEUR PARTS

FERROCART
(IRON CORE) COILS

DIALS—SWITCHES

I. F. TRANSFORMERS

PUSH
BUTTON TUNERS

CONDENSERS

ANT., R.F., OSC., COILS

SERVICE PARTS

R. F. CHOKES

SOCKETS

COMPLETE
RECEIVER KITS

TUNING UNITS

ALIGN-AIRE COILS

WAVE TRAPS

VIBRATORS

You can buy any Meissner product with full assurance there is no finer quality available anywhere at any price.

Meissner has, in their huge factory, the laboratory, engineering and production facilities for the finest electronic equipment.

From the smallest radio part to the big 14 tube kit, you have the greatest dollar-for-dollar buy in the industry.

The name "MEISSNER" has represented precision engineering, fine workmanship and honest merchandise for two decades.

FREE!

Meissner 1938 catalog. 44 pages—everything you need. Complete Kits, P. A. Tuner, All Wave Tuning Units, Coil Assemblies, Adapter Kits, Push-Button Tuners, Remote Controls, Interference Filters, Signal Shifter, Coils, Filters, Transformers, Chokes, Exact Duplicate Replacement Units, Dials, Condensers, Switches, Chassis, Cabinets, Panels, etc., etc. Get this big FREE BOOK now while the supply lasts—See your PARTS JOBBER—or write direct to Meissner Manufacturing Co., Mt. Carmel, Illinois.



Meissner

"A FAMOUS NAME FOR TWO DECADES"

RIDE THE TIDE WHEN IT'S RISING

UP! UP! UP! GO RCA VICTOR SALES

GOING STILL HIGHER IN 1938!

100% IN 1933 148% IN 1934 239% IN 1935 337% IN 1936 395% IN 1937

Dealer orders indicate increasing sales for 1938! Read what distributors say about dealer reactions to brilliant, new 1939 RCA Victor radios.

"Sales figures talk!" says Alan Steinert of Eastern Co. in Boston. "And the way our dealers have been placing orders for the 1939 RCA Victor line is proof that it's plenty hot!"

"Our dealer showing this year was the most successful in our history. The dealers are unanimous in saying RCA Victor's line is the greatest ever, and what's more, they're buying," says Irving Sarnoff of Bruno-New York.

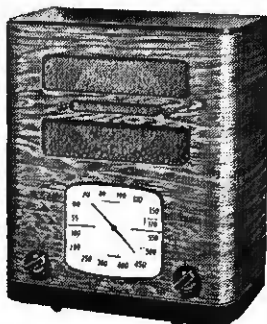
"When I looked at the RCA Victor 1939 line at the Atlantic City Convention I was enthusiastic," says Elmer Hamburg of Hamburg Bros., Pittsburgh, Pa., "But my enthusiasm didn't hold a candle to that displayed at our dealer showings. We got the largest orders in all our experience."

"I was never more surprised in my life," says Bill O'Connor of Southern Wholesalers, Washington, D. C. "Never expected so much business. But when our dealers saw the RCA Victors for 1939—they bought 'em like hot cakes!"

This new RCA Victor line is packed with profits! It's easy to sell! 44 outstanding features—and sensationally low prices—mean that *this* is going to be your *big* RCA Victor year.

CONSOLE GRAND MODEL 97KG (upper right, top of page). This radio, the newest note in styling, offers you such outstanding sales features as Electric Tuning for 6 stations, 3-band Straight-Line Dial, Victrola Button, "Plug-in" for Victrola Attachment, RCA Victor Metal Tubes, Magic Eye, and a host of others. Its cabinet beauty and beauty of tone make it a set that will bring you many sales, large profits.

FOR FARM HOMES—MODEL 94BT



For farm homes without electricity—this exceptional instrument was designed. It's Current Cutter Model 94BT and provides standout performance with 2-volt storage battery. New Current Cutter saves up to one-third on battery costs. Other sales features include four tubes, superheterodyne circuit, tuning range from 540 to 1720 kcs., dynamic speaker, magnetite "frequency locking" transformers and Automatic Volume Control. . . \$19.95
Same cabinet is available for 6-volt battery operation in Model 94BT-6. . . \$29.95

MODEL 96K2. A radio set of unusual beauty, chock-full of features that make sales easy. Has Electric Tuning for 6 stations, 3-band Straight-Line Dial, Victrola Button, "Plug-in" for Victrola Attachment, RCA Victor Metal Tubes, and more than 10 other features. And it sells at amazingly low cost.



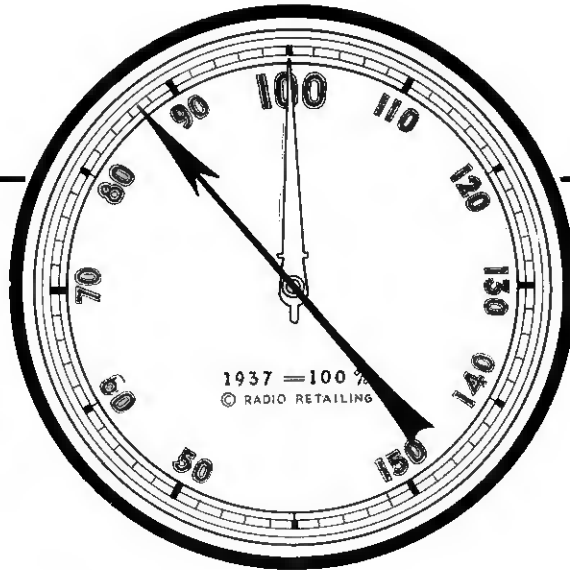
Listen to the Magic Key of RCA every Sunday, 2 to 3 P. M., E. D. S. T. on the NBC Blue Network.

For finer radio performance—RCA Victor Radio Tubes

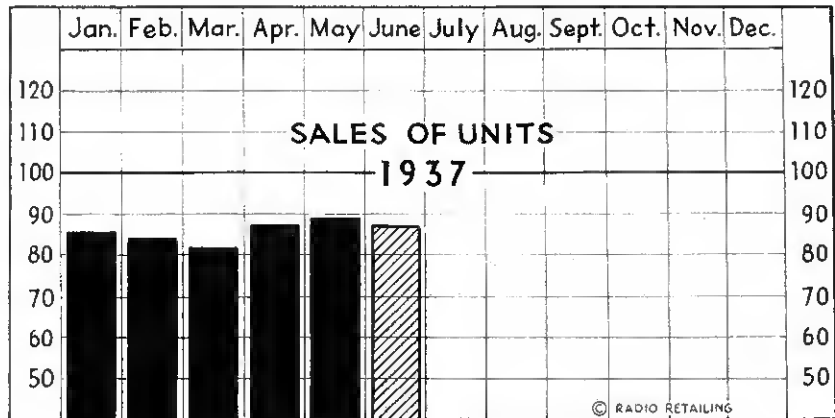
RCA Victor

RCA MANUFACTURING CO., INC., Camden, N. J.
A Service of the Radio Corporation of America

BUSINESS BAROMETER



JUNE Retail Radio Sales



LOW Water Slack" is what bay fishermen call that interval when ebb tide has stopped and the flood tide has not yet begun to run.—That's exactly the situation in retail radio sales as reflected by JUNE reports from over 1,000 dealers.

While the *Radio Retailing* barometer for June drops back to 87—the same level as April, 1938,—after having climbed to 89½ in May, that slight decline in total unit sales for the entire country has little significance at this time of the year, particularly when we consider what the industry has passed through.

Important is the fact that more dealers than at any time this year have reported June *increases* over unit sales of the same 1937 month. Arkansas, California, Georgia, Idaho, Texas, the Atlantic Coast States have many such dealers. In the Central States, Illinois, Indiana, Iowa, Wisconsin, there are almost as

many dealers showing increases as declines. In small towns of agricultural areas many dealers report good sales, while in the cities set sales linger well below last year's level.

Study of all the reports indicates that most of the dumping operations have run their course. Where bargain prices had pulled up the average dollar-value-per-sale *above* last year's average of the same dealers, the dollar-value-per-sale now has dropped down to levels which show that most of the business is done in small sets.

Many dealers state frankly that their stocks are very low and sales effort practically non-existent while they are waiting to see the new models, decide on new lines and get a fresh start. Other dealers have made a running start with new models and credit the increases they report in June unit sales over last year's June to the big values shown in new models.

The lower price levels of all the new lines and particularly the large number of very attractive but cheap table models that are being offered is dividing dealers into two classes—some are inclined to sulk over the lower dollar-value-per-sale average and resulting lower gross profit. Others go ahead and capitalize price and value advantages, find it costs less in time and effort to sell the new sets, attempt to, and generally do, make up the potential profit loss by selling more sets.

A considerable number of set retailers of the latter type pushed their unit sales in June well above the 1937 mark, and thereby managed to approach and in quite a few cases exceed their total dollar-volume of the same month of 1937.

From several important sales territories retailers are reporting voluntarily that the outlook for business has improved materially during the last ten days of June.



JUST THE MAN I WANT
 TO SEE—TELL ME—
 WHAT IS IT YOU
KADETTE RADIO
 FOLKS HAVE UP YOUR
 SLEEVE THIS
 YEAR?

DON'T WORRY
 BILL..
 THIS YEAR AS
 ALWAYS, KADETTE
 WILL BE WAY OUT IN
 FRONT WITH NEW
 IDEAS THAT MAKE SALES
 HUM—BELIEVE ME—
 YOU CAN'T AFFORD
 TO LEAVE KADETTE
 OUT OF YOUR PLANS!



WATCH
 FOR IMPORTANT ANNOUNCEMENT !



KADETTE

INTERNATIONAL
 RADIO CORP.
 ANN ARBOR, MICH.

BEST advertising return for each dollar spent by White's El Paso, is its "Man On The Street" radio program broadcast weekdays from 12 to 12:15 p.m.

Says radio and appliance department manager John Hann: "The listening audience is invited to send in questions (Typical quest: 'What boy was crowned king of his country before his father? Ans: 'Michael of Rumania'.'). We give two theatre tickets for the best. A microphone is set up in front of our store by the station and people buttonholed as they pass by are asked to answer the questions, receive two theatre tickets for their trouble.

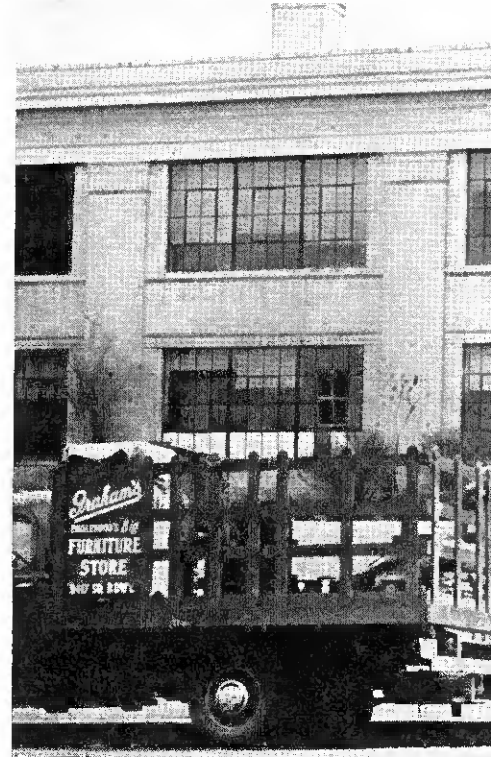
"Organizations pushing worthwhile local welfare projects are frequently invited to send a representative to be interviewed on the program. This adds additional publicity value. And to close each program we broadcast simple verses and poems intended as 'antidotes for the blues', also written by listeners. We offer no awards for these and yet we are flooded with them."

A sign outside White's door advertises the program. And a box is provided for question entries within the store for people who would prefer to deliver them there rather than to the mails.

The idea, we think, could be worked using a sound amplifier instead of actually broadcasting.



SCENE on a SIDEWALK



MORE BARK FOR THE BEARDED LADY

Ringling's circus bought a bill of goods from sound specialist Kirk Fritz the last time it played Brooklyn. Kirk convinced the manager that Atlas marine speakers could stand the gaff, pump out good sound to the sideshow crowds in any kind of weather

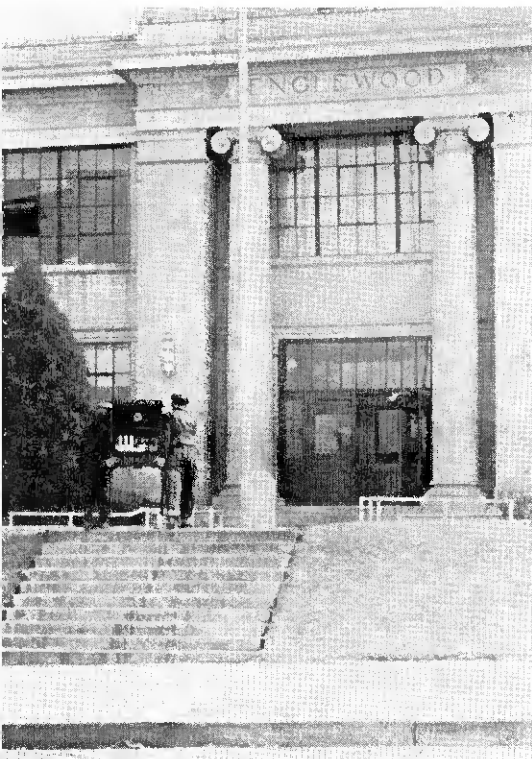
PITY POOR PIANO PLAYERS

In some 10,000 dance studios weary pianists are tapping out rhythm for an estimated 750,000 students. Radios, record players can save such salaries in this, an almost untouched market. Most useful are records with a strong "tempo accent"



SERVICEMEN IN WHITE

Whether it be for observation or an "appendectomy" any radio rushed to Ernest C. Augsten's Hartford "Hospital" gets really professional attention. On the staff are two "internes," and two "nurses." We quote from Augsten's clever, unique ads for his new shop



BATTER UP FOR BUSINESS

To the street before Los Angeles' California Radio Products flock fans when the baseball season is in swing. Cooperating with a newspaper, this shop operates a light-bulb actuated score board (above)

GOOD SPOT FOR TRADE-INS

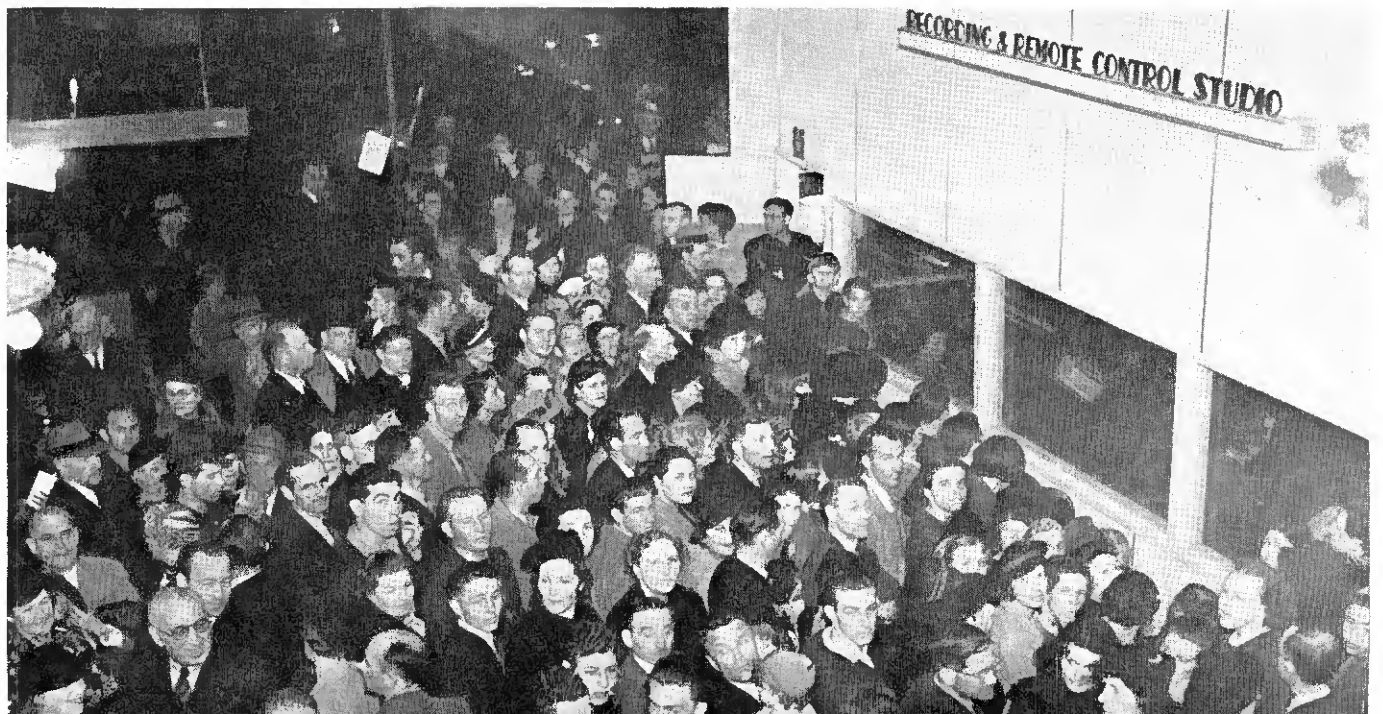
By distributing several large cabinet models (above) to Englewood, Colorado, schools, Hugh Graham of Graham Furniture reduced his used set stock, secured the most valuable kind of publicity in return

HOW TO START A STORE

To these ten lucky people who attended the opening of Times Square's new Brooklyn store went Emerson radios. Responsible for crowding the new shop was the firm's "get acquainted coupon" plan

FREE SHOW SELLS SETS

To church choirs, bands, orchestras Harold William Roberts of Los Angeles' Radio-Music Corporation occasionally offers free recordings. Store doors are thrown wide to visitors, building a prospect list



Farm Radio Sales

and the

R. E. A.

By O. FRED. ROST

FARM business has been considered good business ever since cities grew big enough to justify a distinction between urban and rural sales.

Farmers have been considered good buyers, good credit risks, all-around good customers by every merchant or manufacturer that had a chance to observe the difference between city and farm trade.

Farmers took in over ten billion dollars last year, and for 1938 they may equal or exceed that huge total because crop reports in general are as good and in many cases better than last year, prices are expected to approach last year's levels, and government payments to farmers are increasing.

Therefore, it seems safe to assume that the farm market in 1938 will be as big as it was in 1937—which was the biggest since 1929.

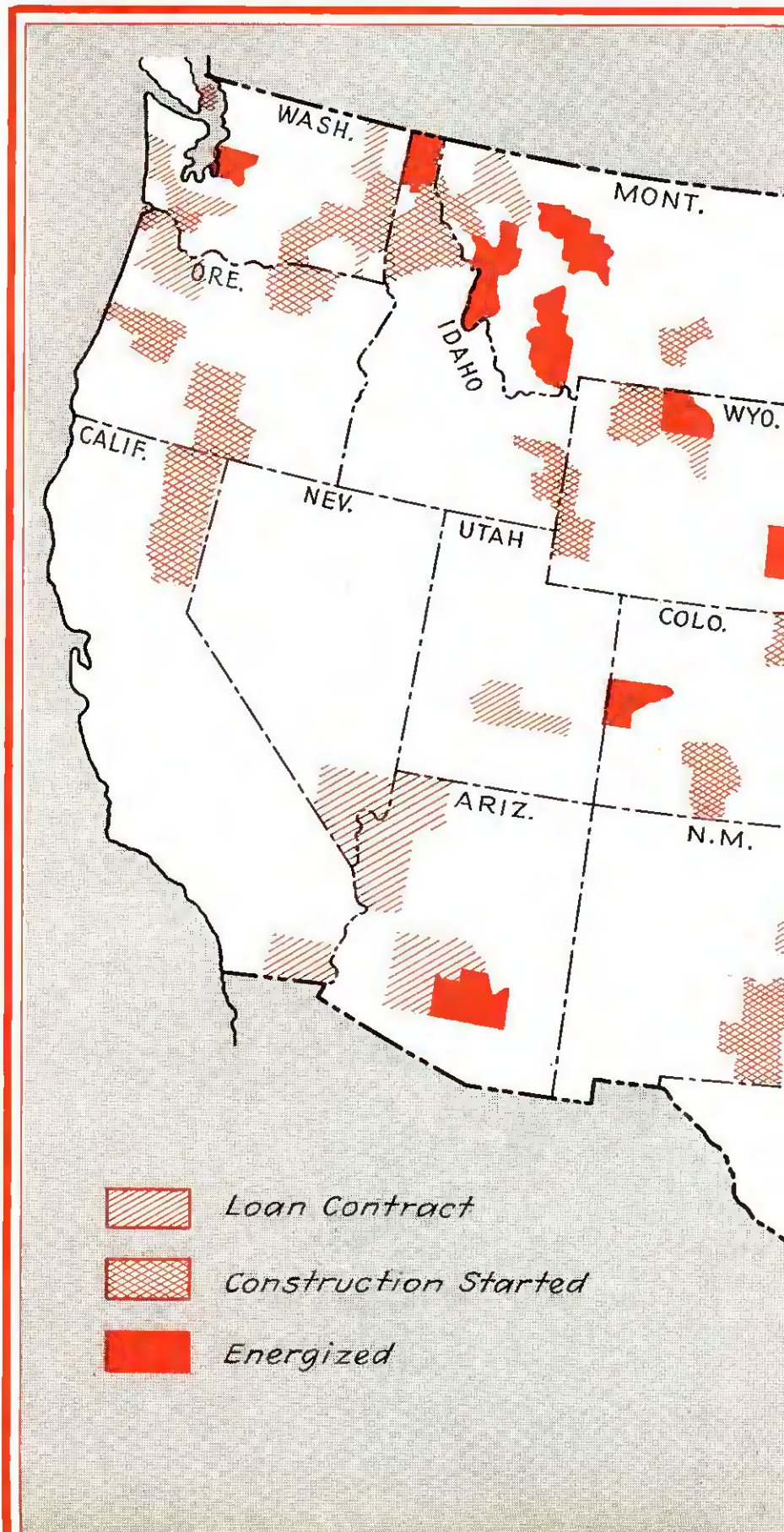
To the radio dealer who operates in rural territory this outlook spells OPPORTUNITY in golden letters. But, to cash in on it, he will have to meet two indispensable requisites, viz:

(1) A thorough knowledge of current rural electrification activities.

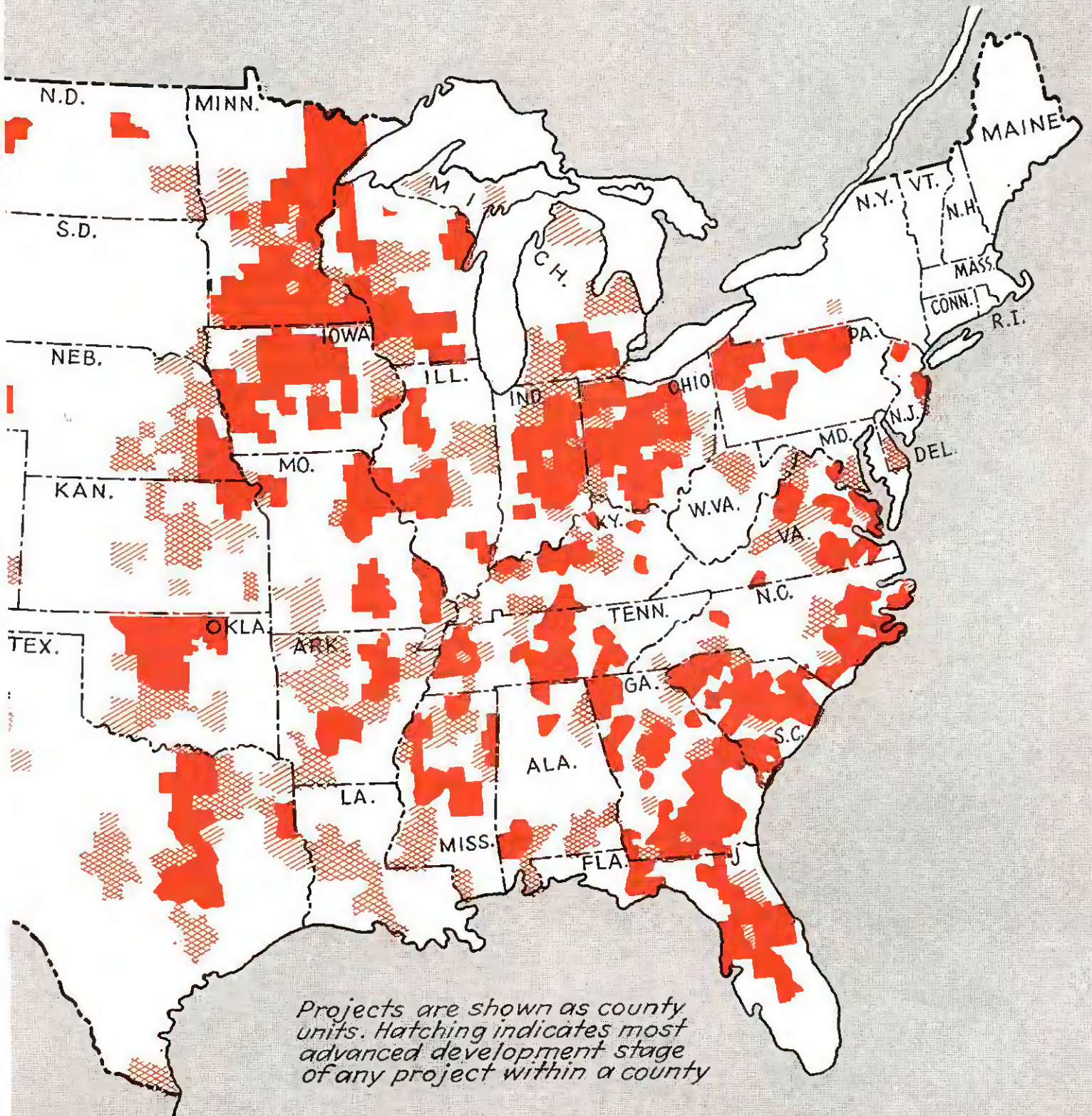
(2) Intelligently planned, intensive sales effort.

The first of these has assumed major importance only since 1935 when the government created the Rural Electrification Administration.

Much of the publicity and announcements in connection with R.E.A. activities have been misunderstood and misinterpreted. Farm-



LOW-DOWN ON GOVERNMENT HIGH-LINES—Here, as of June 17, is a complete picture of the *Rural Electrification Administration's* accomplishments



ers everywhere have gained the impression that before long they will see "high-lines" reach their doors, give them regular electric service. Mistaken impressions can be corrected by the dealer only if he has the necessary facts to work with, and in this issue *Radio Retailing* is bringing its readers up to date on R.E.A. activities since its last round-up, published in August, 1937.

The accompanying map is reproduced from R.E.A. official records. The various colored areas indicate R.E.A. projects that (a) have approved loans, (b) are under construction, (c) are completed.

It is important to note that the shading of any specific area does not necessarily mean that all the rural areas in a territory so indicated are affected by a R.E.A. project, nor does it indicate that all the farm homes within that area are in line for electric service. It means simply that the county so shaded is involved in one or more R.E.A. projects. It follows that this map can serve effectively as the dealer's tip-off on R.E.A. activities in his territory, and as a sales weapon in cases where prospective buyers are using the possibility of R.E.A. extensions as an excuse for not buying, when actually there are no projects under way in that section.

Of course, the wide-awake dealer will keep himself constantly informed on all current gossip or actual developments in connection with high-line extensions, so as to keep his sales efforts, his merchandise, stock and promotions properly adjusted to fit present or future needs of his territory.

The ideal way of accomplishing this would be to supplement the

FARMS SERVED BY PRIVATE UTILITIES

	Total Occupied Farms	Percentage Electrified
Alabama	258,227	8.1
Arizona	17,681	39.0
Arkansas	240,139	3.1
California	132,658	88.5
Colorado	59,065	16.3
Connecticut	29,508	67.8
Delaware	10,134	27.5
Florida	59,726	12.7
Georgia	236,501	7.0
Idaho	41,919	48.0
Illinois	225,093	23.0
Indiana	193,461	26.7
Iowa	214,484	18.5
Kansas	162,992	10.9
Kentucky	257,845	5.3
Louisiana	162,978	4.9
Maine	40,092	41.8
Maryland—Dist. of Columbia	42,990	38.8
Massachusetts	33,092	64.5
Michigan	188,827	44.5
Minnesota	196,621	9.1
Mississippi	292,112	2.4
Missouri	267,176	9.7
Montana	46,150	9.9
Nebraska	128,814	9.8
Nevada	3,365	37.9
New Hampshire	17,147	56.7
New Jersey	28,818	68.4
New Mexico	38,059	5.5
New York	168,269	52.2
North Carolina	280,716	11.5
North Dakota	77,193	4.2
Ohio	244,451	37.9
Oklahoma	200,951	6.4
Oregon	61,137	47.5
Pennsylvania	186,127	45.5
Rhode Island	4,078	94.7
South Carolina	154,720	9.2
South Dakota	78,359	4.3
Tennessee	250,192	10.0
Texas	458,622	6.8
Utah	26,203	73.9
Vermont	25,741	29.4
Virginia	186,892	12.3
Washington	81,105	58.0
West Virginia	100,409	10.6
Wisconsin	194,765	31.1
Wyoming	16,484	12.1

and other information that is useful in planning the sales attack.

It should not be forgotten that wherever a high line is projected, either by the R.E.A. or a private utility company, an immediate market is created for so many things that a concentrated sales attack is warranted. And it is important to note that a radio set stands as undisputed No. 1 in the list of things that the farmer buys when high-line service is in sight.

In a recent telegram sent to the editor John M. Carmody, Administrator of the R.E.A., said: "Farmers are literally taking radio sets away from them" (the radio dealers), and that this statement is not exaggerated is borne out by monthly sales reports received in connection with our monthly barometer of radio sales. It has been demonstrated time and again that wherever a high-line extension is energized, there the retail sales of radio sets jump to unbelievable totals.

Furthermore, a recent survey made by the R.E.A. of the saturation of various major items in over 10,000 homes affected by 46 projects showed radio at the top of the list with 86.2 per cent of all homes having one. Thus it appears that wherever high-line extensions occur, there the radio dealer has a previously unequalled opportunity for building immediate new sales on standard sets and good will and future sales through efficient service to his customers.

However despite all the high line activities in the past or now contemplated the opportunities of farm radio dealers are very much greater in areas where no high lines exist and where, according to the map, none are contemplated at this time. There again, all intelligent sales effort should be planned with the aid of a location map and an informative card index.

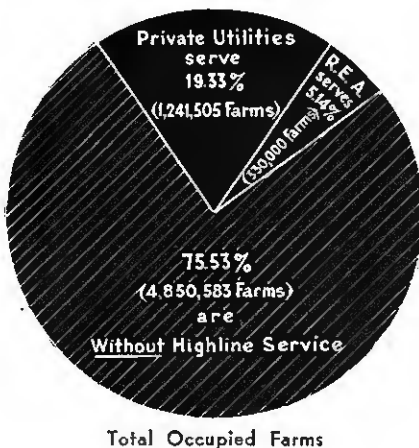
A radio set has become almost indispensable to farmers as the only means of keeping up constantly with current conditions, crop reports, prices, weather reports, etc. Very few farmers have to be sold on the idea of needing a set, but too many still have the mistaken belief that they can't afford one or, if they now own one, that the new sets and up-to-date accessories and equipment offer little advantage

(Please turn to page 54)

accompanying map of the United States with one of larger size, showing the territory in which the dealer expects to get the bulk of his business. A road map such as many oil companies distribute free is ideally adapted to that purpose.

A dealer should mark on such a map present high-line extensions as well as projected lines, if and when they are authorized. On the map should be marked also as completely as possible all existing farm homes, preferably numbered so that a card index may be developed which, under the identical number, gives details as to name of farmer, type of radio and appliances now owned,

75% HAVE NO HIGHLINES





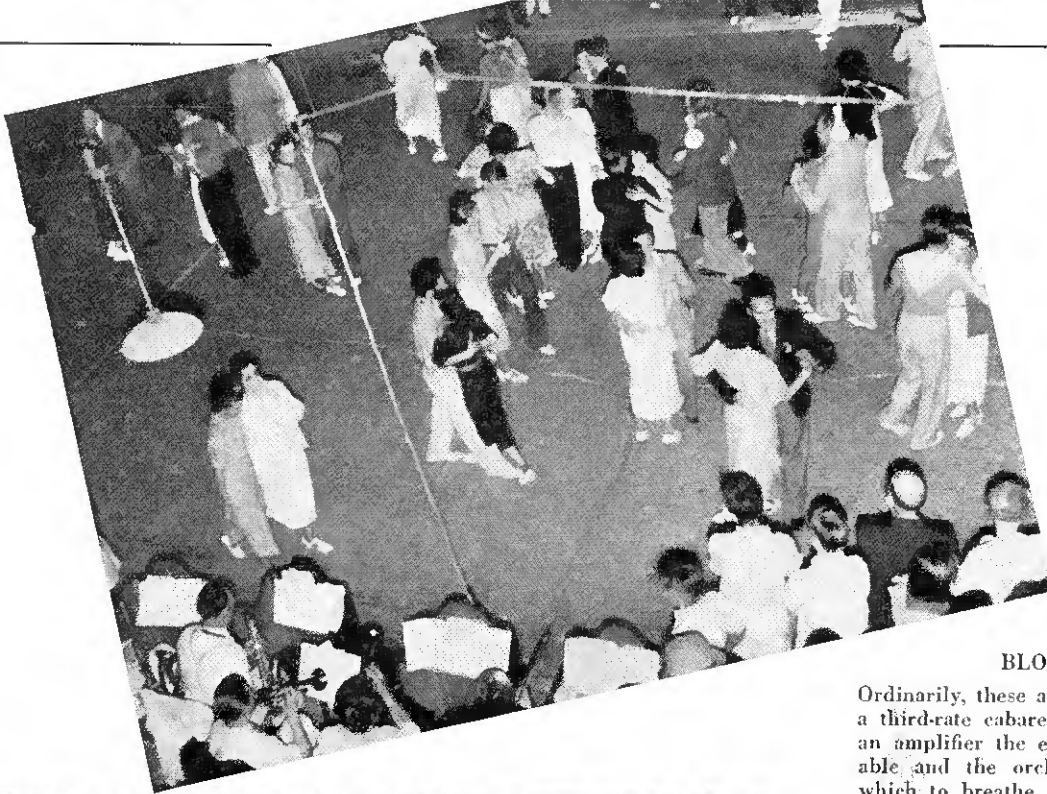
LOOK FOR
THE *1939*

Motorola
"SURPRISE"
CONSOLES

*READY
SOON!*

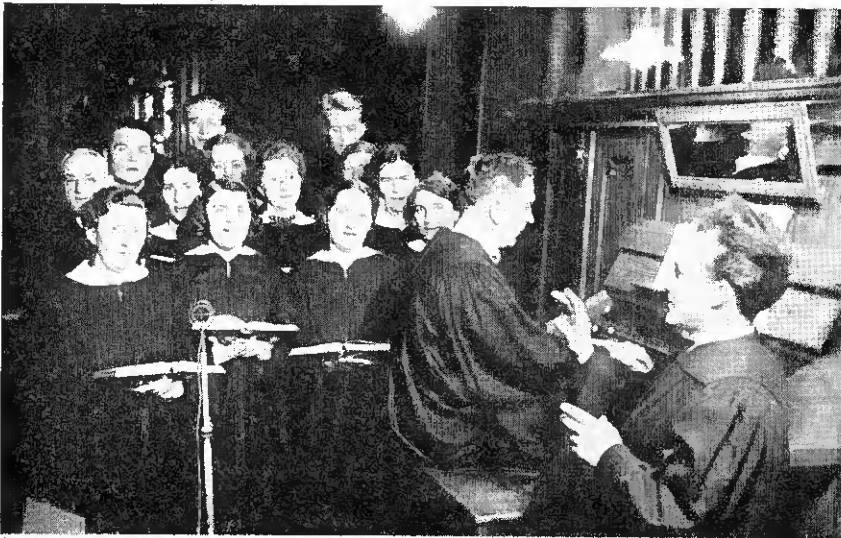
GALVIN MANUFACTURING CORPORATION • CHICAGO

MAIN STREET and



BLOCK DANCE

Ordinarily, these are no more crowded than a third-rate cabaret floor. With the help of an amplifier the entire street becomes useable and the orchestra still has room in which to breathe and perspire (Fig. 1)



CAROLS — Here's the modern way, as illustrated in a Schoharie, N. Y., church (Fig. 2)

SOUND has gone a long way since the first electrodynamic speaker came out back in the early twenties. And it is still going places! Designed originally for radio, the loudspeaker has allied itself with an expanding number of byproducts, each of which has contributed to the profit of those associated with sound—from the manufacturer to the operator—and to the convenience and pleasure of those who listen to it.

As a convenience and necessity, its applications are evenly distributed from Madison Square Garden to the country fair. However, its entertainment possibilities are more admirably fitted to the tastes and requirements of the small town—where such needs may be intelligently administered by the small operator within the limitations imposed only by his ambition, technical ability and imagination.

A street dance, ordinarily, is as

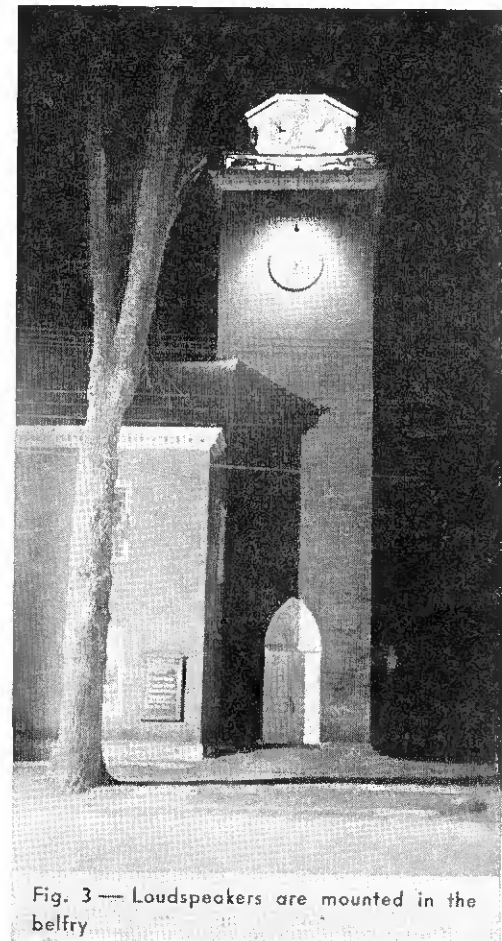
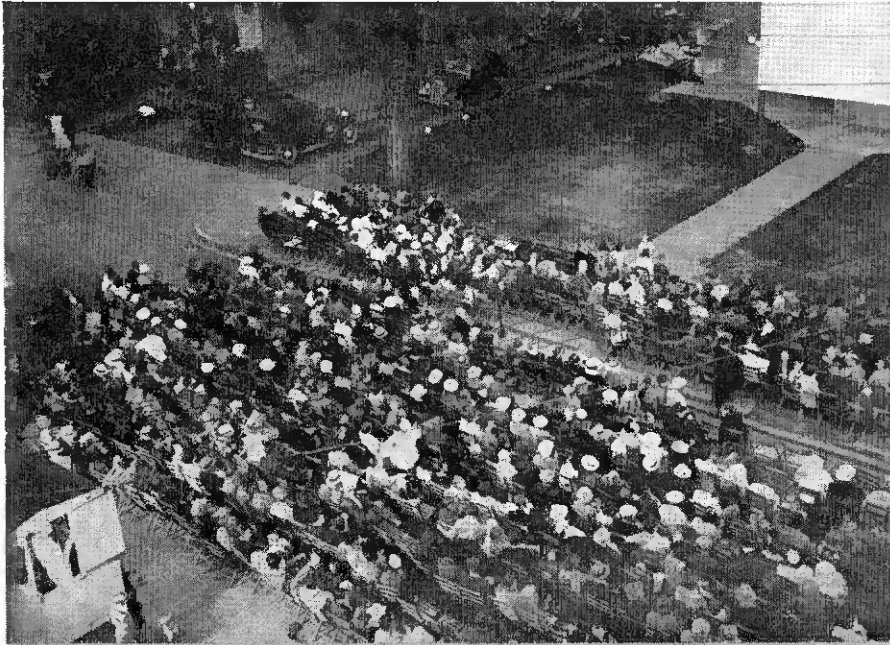


Fig. 3 — Loudspeakers are mounted in the belfry

SOUND

by ZEH BOUCK



FREE MOVIES—Main Street fills up. At the projection booth (lower left) and the screen (upper right) are two of the four speakers (Fig. 6)

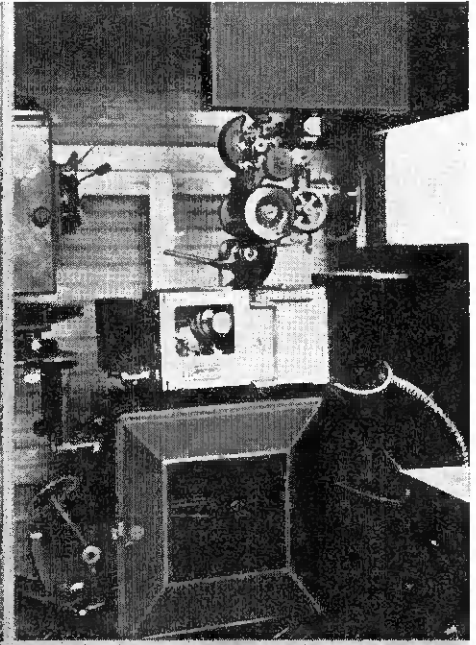


Fig. 7—Interior of the projection booth, showing one of the twin projectors

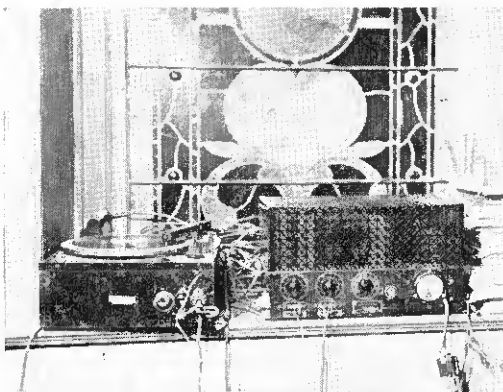


Fig. 4—The entire village hears these units

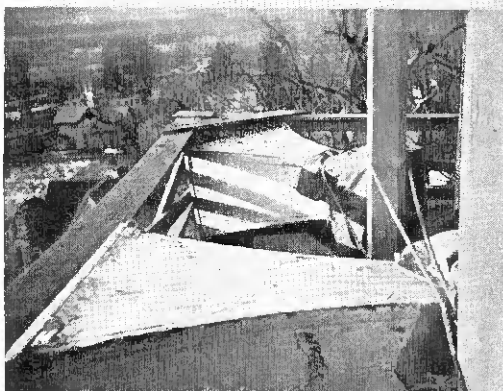


Fig. 5—Chime and carillon recordings help the choir

crowded as a third-rate cabaret dance floor. With the help of sound, the entire block can be used—and the orchestra given room in which to breathe and perspire. (Figure 1.)

Sound has its place at the race track, in the tavern, and in church, particularly during the Christmas festivities and the Easter services. In Figure 2 the choir sings into the microphone. The music goes in there and comes out in Figure 3, the church belfry—Christmas carols and chimes ringing clear in December's crisp night air. The installation of the speakers in the belfry is shown in Figure 4, which also gives a view of the valley over which the sounds echo for better than two miles. The choir is supplemented with organ music, and with readily available chimes and carillon recordings appropriate to the season. The phono unit and amplifier are conveniently installed (Figure 5) on the sill behind one of the dedicatory church windows.

A more enterprising stunt—that is, from a commercial angle—is the presentation of free open-air talking movies. The projectors are housed in a specially built trailer with *no springs*. (If springs are used, the mobile booth must be jacked up dur-

ing the show.) The projection booth can be seen at the lower left in Figure 6. Figure 7 is an interior shot of the booth showing one of the projectors and a sound-head. The screen, with speakers on each side (upper right in Figure 6), is strung across the street—in this case in front of the county court house. Recordings are played during early evening.

Cui bono? The answer is in the crowd that is beginning to collect in Figure 6, and which soon overflows Main Street to standing room only. Literally hundreds drive as far as sixty miles at an average cost of \$1.80 to see a movie for nothing! The local merchants do a big business that night on everything from pop-corn to overalls—so much so that they have supported the enterprise ever since the days of the silent movies. And the inmates of the county jail (just behind the court house) enjoy the sound.

All of these photos show sound activity in a single country village—Schoharie, the county seat of Schoharie County, New York. The P. A. ideas illustrated were conceived and executed by Edward Scribner, Philco, Arvin and Hotpoint dealer, and local radio serviceman. They've all gone over in a big way.

STIFTEST sales resistance encountered by dealers pushing battery radios in rural areas is the stock consumer objection: "Can't afford." No insurmountable obstacle, obviously, is this to salesmen operating among farmers infinitely better off from a financial standpoint than their urban brothers and yet a June *Radio Retailing* survey among 191 dealers places it at the top of the list with a rating of 67.79 per cent.

Next in importance as a consumer hurdle, according to these farm area dealers, is the fact that 28.36 per cent of their prospects "expect highlines." (A map printed elsewhere in this issue shows precisely how much . . . or how little . . . the R. E. A. has done, plans to do.) Third item of sales resistance, reported as affecting 3.85 per cent of all consumer contacts, is the fact that some people "don't like radio." Probably some of these can't be sold. And yet we wonder if they have seen new sets and accessories or still think in terms of the equipment of 5 years ago?

Catalogs, 53%

Intra-trade competition is, perhaps, a more important factor in battery set and accessory sales. Mail-order catalogs, 53.56 per cent of the farm area dealers contacted tell us, are the chief stumbling block

FOR MORE Battery Business

Rural dealers tell what they need to increase set and accessory sales

to increased volume. Retail stores operated by catalog houses are given this honor by 41.57 per cent. Price-cutting competitors, the remaining 4.87 per cent believe, are the fly in the ointment. Competition from this source, clearly, is less troublesome than in the cities.

Dealer recommendations for further stimulation of battery set and accessory sales plainly reflect a desire to overcome the resistances classified above. Lowering of prices is recommended by 30.74 per cent and, reading between the lines, it is apparent that this largely reflects a desire to be in a more favorable competitive position when encountering mail-order catalogs.

Improvements in set design are suggested by 29.39 per cent and the reward of still further technical advances seems, for this reason, even better potentially than in the urban set field. Increased advertising is recommended by 14.53 per cent of these dealers striving to be constructive in their thinking and the need for it is obviously due to catalog and private-brand equipment competition. New models are seen as the best possible approach to increased farm set volume by 13.85 per cent. Lines now going to the trade should adequately answer this need. (Remaining suggestions from 11.15 per cent of the dealers contacted are miscellaneous and difficult to classify.)

Importance, 30%

Importance of battery radios and accessories to farm area retailers is indicated by the fact that 30.96 per cent of their total merchandise sales, 191 dealers reporting, comes under this heading.

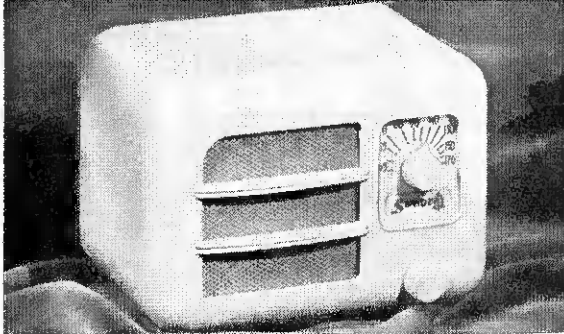
The reports further show that 70.22 per cent of the battery sets sold by these dealers are table models, 29.78 per cent consoles. Six-volt sets account for 50.71 per cent of this volume while 2-volt types nearly split the market with 49.29 per cent. Average dollar value of 6-volt table models sold (by the 191 dealers reporting) is \$48.11. Six-volt consoles bring an average of \$73.10. Two-volt table types average \$40.08, 2-volt consoles \$58.87.

Interesting sidelight on farm area business is the fact that 52.18 per cent of the battery set business is done on time-payments, 47.82 per cent for spot cash. And 62.85 per cent of all battery set sales (materially less than big-city sets) involve trade-ins.



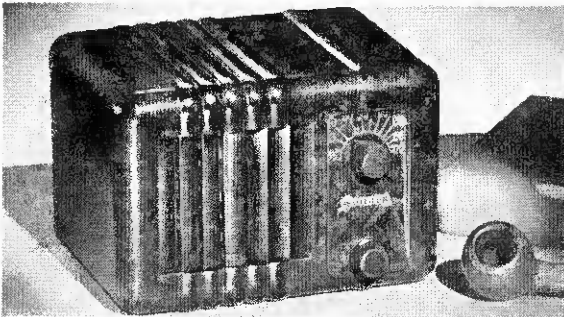
Yes! Sonora

**OFFERS PROFITABLE
DISTRIBUTOR OPERATION**



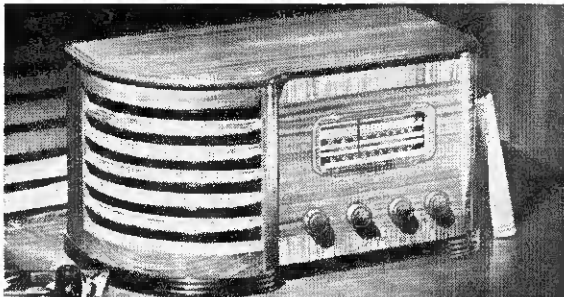
THE "TEENY-WEENY," P-100. A 4 tube gem-like AC-DC radio that will fit in the palm of the hand. Tunes 1720 to 550 K.C. 2 Watts Output; Beam Power Tube; Dynamic Speaker; Illuminated Dial; Built-in Aerial. Plastic cabinet; available in ivory, black, or walnut. Only 6 3/4" x 4 7/8" x 4 7/8". Weighs only 4 lbs. Black or walnut lists at only.....

\$9.99



5 TUBE MODEL PS-102. "Teeny-Weeny" style. Tunes 1720 to 550 K.C. and police calls. AC-DC Superhet Circuit; A.V.C.; 2 Watts Output; Beam Power Tube; Dynamic Speaker; Illuminated Dial; Built-in Aerial. Beautiful molded cabinet; available in ivory, black or walnut. Only 6 1/2" x 4 1/2" x 4 1/4". Weighs only 5 lbs. Black or walnut lists at only

\$12.95



6 TUBE MODEL D-12. A two-band AC-DC Superhet of brilliant styling. Tunes 1720 to 535 K.C.; 2200 to 7000 K.C. Features: 2 Watts Output; Beam Power Tube; Tone Control; A.V.C.; 6" Slide-Rule Dial; 6" Electro-dynamic Speaker. Size: 16" x 7 1/2" x 9 3/4". The new type table cabinet has the exclusive SONORA louvre grille.

with **PRICES** that pack sales appeal-
and a line that's **NEW**, that's **SMART**,
that's **COMPLETE!**



9 TUBE MODEL GA-88. Brilliant three-band A.C. Superhet in 1939's most distinguished radio console. Tunes 535-18100 K.C. Features: Automatic Push-Button Tuning; 8" Slide-Rule Dial; Tone Control; A.V.C.; 9 Watts Output; 12" Electro-Dynamic Speaker; Pre-selector, etc. Size: 32" wide, 36" high, 13" deep. Famous for "Clear as a Bell" tone.

P-800 ELECTRIC PHONOGRAPH. A magnificent new A.C. musical instrument. Has full six watts output. Features: Dynamic Speaker; Tone Control; Variable Speed self-starting motor; 10" turntable; Crystal pickup with tangent head. Plays all size records flawlessly. In solid walnut cabinet.

PB JR. RECORD PLAYER. The finest available. Plays all size records through any radio. Has Crystal pickup, self-starting motor, 8" turntable, volume control and on-off switch, etc. For 110 volts A.C. 6 1/4" x 14 x 10 1/2". Weighs only 10 lbs. In solid walnut cabinet with removable cover.

Sonora

Clear as a Bell

RADIO & TELEVISION CORP.
MERCHANDISE MART • CHICAGO

PHONOGRAPH DIVISION:

Sonora Electric Phonograph Company • 132 W. 22nd St., N. Y

SONORA is open for qualified distributors for territories not yet adequately represented. Write, phone or wire for complete details.

SINCE 1914 — THE LEADING NAME IN THE MUSIC REPRODUCING WORLD

CHECKS *worth waiting for*

1939 will really be a "going-to-town" year with Westinghouse Radios! A completely new line of **RADIO VALUES** to stimulate buying . . . over 30 **FEATURES** that build sales! A smartly planned merchandising campaign designed expressly for your *local* use. It's a unique, effective, business-getting program! So if you want volume sales and profits in 1939—



CHECK —the specially priced radios Westinghouse offers . . . feature **VALUES** to induce prospects to **YOUR** store. Check the tone, cabinet construction and the eye-appeal of this new line of Westinghouse radios, styled by America's foremost radio designers.

DOUBLE CHECK —the many outstanding features that make Westinghouse radios more easily demonstrated, more easily sold.

UNDER-SCORE —the sales help Westinghouse has made available—a *proved* sales getting program . . . powerful cooperative newspaper advertising . . . consumer literature . . . floor displays . . . window displays . . . and all the other items . . . **AND THE ANSWER IS**



**THE INSIGNIA OF
RADIO PROFITS
FOR YOU IN
1939!**

MERCHANDISE HEADQUARTERS
WESTINGHOUSE RADIO
150 Varick Street New York City

Westinghouse *Precision* RADIO



SETS for SWAP

By
**HOWARD
BARMAN**

OPEN-AIR SALESROOM — Small-talk about stockman Montgomery McCullough's prized brown Swiss bull breaks the ice for a radio or electrical appliance proposition



TRADING for nearly anything of value on the farm as a part payment on a radio creates many sales that wouldn't otherwise be made for Floyd Capito, Howard County, Missouri. He bought 75 radios in the 1938 spring season and all but five had been sold up to May 1.

"I've traded for everything on a farm except a threshing machine," states Capito. "And for everything used in the rural home except a baby carriage.

"'I can't buy your radio today,' is a statement I've heard many a time at the rural door. 'Alright, do you have something you want to sell,' I ask them, and many a time they trot out something of value they no longer need. This something frequently makes a safe down payment.

"Certainly, it's a lot more trouble to take goods in on a trade than it is to take cash. You have to haul the things back to the store, polish and paint them up to make them salable. But trading is the only way to close a deal with some people."

Here are a few examples of this Missouri dealer's trading experiences: A white collar worker in town was promoted and no longer needed a personally owned typewriter. He was interested in owning a new radio. The typewriter was taken as a payment and later sold for \$5 more than the list price of the new radio.

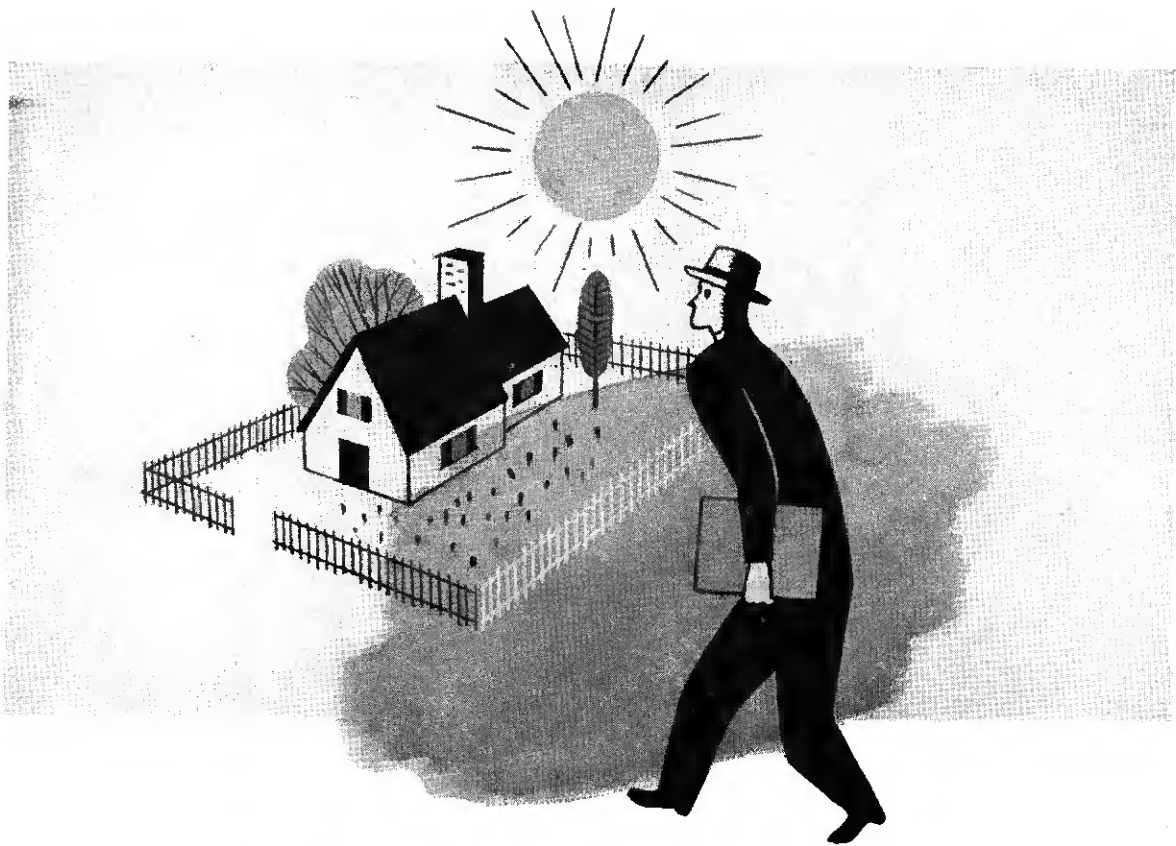
A used roadster was taken in on a new radio battery set and later sold at a price \$10 above the allowance.

A farmer wanted a new electric radio and Capito sold him a \$195 set for his used battery set plus \$120 cash. He traded the used battery set to a man who was moving to an unwired farm and got in return the latter's electric set, a \$34.50

CASH, OR WHAT HAVE YOU—To this hand on the R. T. Kingsbury farm hard money comes with the harvest. Capito (with price book) dickers for a radio down-payment "in kind"

electric fan and a \$6.50 electric iron. The radio, fan and iron were soon sold for \$70.

A filling station owner bought a \$65 oil circulating heater and almost as quickly decided it was not the type of heater he wanted. He was interested in a new radio and an offer to take the heater off his hands. Result: Capito sold him a \$185 set, allowed him \$50 on the heater. The heater was used several seasons and then sold for \$30 last winter.



How To Pick

OUTSIDE

Third of a Series

NOW that we have decided to get ourselves some man-power (see "Men Must Have Money," page 18, June) at two dollars per day per head, and have put an ad in the Sunday paper, our salesmanager sits back in the office Monday morning to await results.

Don't let anybody tell you that the reason for so much unemployment today is that half the men out of work don't want to work anyway. A mass of humanity will mob your store. A former sea captain, a carpenter, a musician, a poet, an accountant, as well as men with some experience in your business. And what are they looking for? Two dollars a day.

Some of them are willing to work hard for it. Others are looking for some easy spending money. Most of them are convinced that there is no more chance of selling an electrical appliance today than there is of putting out a three-alarm fire with a water pistol.

But you know different. You know, or should know, that the least desirable man there is worth two dollars a day if he canvasses hard and conscientiously for five hours each day, and his leads are taken care of by a good man. It is a proven fact.

After placing somebody on guard to see that nobody walks out with a

table model, you go to work on them.

Interviewing

These men should be interviewed individually. You could save much time, of course, talking to them as a group, but you couldn't get the reaction of each man to what you say. And your salesmanager, or supervisor, *wants* that reaction. It should decide whether or not you hire the man.

Any man who decides, reluctantly, to give it a whirl, should be allowed to go whirl somewhere else. You don't want him. You don't beg these men to take the job. You don't even try to sell them the idea that it is a good job. You're paying them two dollars a day, and the ones who are glad to get it are the ones you want. A man who seems to need and want a job very badly is a good bet even if his clothes are shabby. And while you naturally want neat men, don't let any well dressed man do you a favor by taking the job.

In interviewing an inexperienced

man, you will discover that you could easily spend the whole day talking to him. But you don't have the time. You can't explain all the selling features of each piece of merchandise in the store, then, so don't try. As far as the merchandise is concerned, dismiss it in a hurry. Wave your hand at it and say, "This is what we sell, but somebody else will sell it for you, at first. It'll take you a long time to become familiar with it. What we want you to do is canvass for five hours a day. We'll pay you two dollars a day for that, and five per cent commission on everything we sell for you. Want the job?"

Set-up

If he wants the job (and you want him), you go further and explain his set-up. You explain to him that he will get his two dollars each day, except Saturday, so he will have expense money. You show him where just one \$100 radio the first week will net him \$15—\$10 salary and five

Any Man Who Decides *reluctantly To Give It A Whirl* Should Be Allowed To Go Whirl Somewhere Else

By **CASWELL ODEN**

per cent. (You don't bother to tell him then, though, that with so little business he couldn't stick.)

You show him where on \$200 worth of business a week he would net \$20, or exactly what he'd earn if he were working on a straight 10%. On \$300 you show him where he would earn more money on a straight 10% commission basis, which, you inform him, is darn good commission, considering the fact that all his sales will be closed for him.

You can even show him where on \$1,000 business he would earn \$100 on a straight 10% and only \$60 on

the man who makes a favorable impression upon you, forgetting other qualifications, is the man who is most apt to make a favorable impression on the housewife. And it has also been proven many times that an inexperienced man who will work hard is more valuable—as a canvasser—than a lazy man with experience. But this last should make little difference, really. Because all the men you hire should *have* to work, whether they like it or not; they should be very carefully watched, at first.

You do not necessarily hire every man who wants the job, or even every

results. And I do *not* advocate spending two dollars per day per man in such a manner. The men become disgusted and quit. And if they do stick merely for the two dollars, they aren't worth it.

It is much better for a supervisor to take one man on Monday, another on Tuesday, and so on. And on that basis I not only think but *know* the man will be worth his two dollars.

The supervisor should spend the whole first day with the man. He should first canvass a full block himself and let the man stand nearby and watch him, listen to him. Then the man should canvass a block with the supervisor watching and listening. After every two or three houses the supervisor should, for the complete novice, give more instructions, advice, and encouragement. It will be a brutal day for the supervisor! But it will be worth it.

My experience has been that one supervisor cannot handle more than four men properly, sometimes three, either inexperienced or experienced. When they are inexperienced he will have his hands full teaching them the business, showing them how to tell the difference between a prospect and a woman who is merely willing to talk.

And as they gain in experience and ability, even when they reach the stage where they start handing him signed contracts on some of the easier sales, the supervisor will be just as busy because, being better men, they will produce more prospects.

These men, from the start, must be required to keep very regular hours. They should report at the store early enough for the supervisor to have them on the territory by nine o'clock. They should have from twelve to one to eat lunch and rest. Then work again until three o'clock.

At three o'clock, after turning in their prospects on cards to the supervisor, they can go home unless they still have radios to go in which haven't already been delivered. In that case they stick until their radios are in. But all radios should be delivered for

(Please turn to page 72)

SALES MEN

COMING: Training Green Men

the salary basis. But don't worry—he'll take the salary!

I do not offer that set-up as the only one or the ideal one. Once again I must go back to the salesmanager's set-up and the supervisor's set-up, and point out that the furniture dealer may not be able to pay quite as much, total sales commission, on radios as an electrical appliance dealer who finances his own radios. But I think you get the general idea.

As far as the *man's* set-up is concerned, though, he's got to average \$200 business a week, and very soon, or—off the salary basis he goes. He can stay with you, of course, averaging, say, only \$100 a week, if he's no trouble to the supervisor, but only on straight commission.

Selection

You know the type of man to select without my saying a word. But I want to remind you here that men on the street do not sell their merchandise: they sell themselves. And

man whom you'd like to have. You hire only as many men as the available supervisors and the salesman-ager, if he is going to take men out himself at first, can handle. You naturally want to waste no time in getting your sales force organized, but to give any supervisor more inexperienced men at one time than he can handle, properly, is a waste of the dealer's money. It is better, and cheaper, to develop gradually. The names and addresses of such desirable applicants as cannot be hired the first day, should be kept on file until you need them.

It is very difficult for a supervisor to break in, properly, more than one man at a time.

He could, of course, take out four inexperienced men the first day, give each one his catalogues, folders, price lists, business cards, spend about ten minutes explaining to the group the approach he wanted used, and then let them go to it. This is quite often done, too, and with very disastrous

Where Skill is Vital



ONE of the most delicate processes in Sylvania tube manufacture is "mount assembly"—a job that demands exceptional precision and skill. For each tube part must be accurately spaced in relation to other elements . . . and carefully welded in place.

The slightest variation in spacing might affect the finished tube's performance. So Syl-

vania entrusts this difficult work only to skilled experts—workers like the girl above, whose dexterity and skill are



the result of years of tube-building experience.

Due to the extreme care taken at every step of manufacture . . . and the destruction of any tube found to be even slightly imperfect — **YOU CAN'T BUY A SECOND-QUALITY SYLVANIA TUBE.**

Hygrade Sylvania Corp., Emporium, Pennsylvania. Cable HYSYLVANIA, N. Y.

SYLVANIA

Set-Tested Radio Tubes

ALSO MAKERS OF HYGRADE LAMP BULBS

SET • SPECIFICATIONS

(Continued from June issue)

Battery Types . . . Combinations . . . Table Models . . . Consoles . . . Chairsides . . . Auto Radio . . . Communications

MODEL	TYPE	LIST PRICE	RANGE IN KILOCYCLES	SUPPLY VOLTAGE	ARE "B" BATT. REQUIRED	DIMENSIONS (H-W-D) (INCHES)	SHIPPING WEIGHT (LBS.)	TUBES	INTERMEDIATE FREQUENCY (KC.)
Andrea Radio Corp., 4820 48th Ave., Woodside, Long Island, N. Y., (Andrea)									
2-D-5	Flat Table	536-1700	2000-6000	AC	No	58x8x3 1/2	455	25L6, 6A8, 6K7, 607, 25Z6	470
6-D-5	Flat Table	536-1700	2000-6000	AC	No	58x8x3 1/2	455	25L6, 6A8, 6K7, 607, 25Z6	470
14-E-6	Flat Table	520-1720	5900-18200	AC	No	58x8x4	455	6A8, 6K7, 607, 25Z6, 25L6	470
2-E-6	Flat Table	530-1800	1800-6850; 6840-23500	AC	No	58x8x4	455	6A8, 6K7, 607, 25Z6, 25L6	470
4-E-8	Flat Table	530-1800	1800-6850; 6840-23500	AC	No	58x8x4	455	6A8, 6K7, 607, 25Z6, 25L6	470
4-E-11	Vertical Table	530-1800	1800-6850; 6840-23500	AC	No	58x9x4 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
6-E-6	Console	520-1720	2250-7800; 7600-24000	AC	No	7x9x15 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
6-E-11	Console	530-1800	1800-6850; 6840-23500	AC	No	7x9x15 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
8-E-8	Phono. Comb.	520-1720	2250-7800; 7600-24000	AC	No	8x12x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
8-E-11	Phono. Comb.	530-1800	1800-6850; 6840-23500	AC	No	8x12x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
10-E-8	Auto. Ph. Comb.	530-1800	1800-6850; 6840-23500	AC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
10-E-11	Auto. Ph. Comb.	530-1800	1800-6850; 6840-23500	AC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
62PX	Flat Table	536-1700	2000-6000	AC-DC	No	8x12x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
630	Flat Table	520-1720	2250-7800; 7600-24000	AC-DC	No	8x12x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
632	Console	520-1720	2250-7800; 7600-24000	AC-DC	No	8x12x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
634	Phono. Comb.	520-1720	2250-7800; 7600-24000	AC-DC	No	8x12x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
11530	Vertical Table	530-1800	1800-6850; 6840-23500	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
1532	Console	530-1800	1800-6850; 6840-23500	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
1534	Phono. Comb.	530-1800	1800-6850; 6840-23500	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
1536	Auto. Comb.	530-1800	1800-6850; 6840-23500	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	470
Emerson Radio Phonograph & Corp., 111 Eighth Ave., New York, N. Y., (Emerson)									
AX-211 Walnut	Table Compact	89.95	540-1730	AC-DC	No	58x8x3 1/2	455	25L6, 6A8, 6K7, 607, 25Z6	A
AX-211 Ivory	Table Compact	12.95	540-1730	AC-DC	No	58x8x3 1/2	455	25L6, 6A8, 6K7, 607, 25Z6	A
AX-217	Table Compact	14.95	540-1730	AC-DC	No	58x8x4	455	6A8, 6K7, 607, 25Z6, 25L6	A
AX-235	Table Compact	17.95	540-1730	AC-DC	No	58x8x4	455	6A8, 6K7, 607, 25Z6, 25L6	A
AX-212 Walnut	Table Compact	19.95	540-1730	AC-DC	No	58x9x4 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
AX-212 Maple	Table Compact	9.95	540-1730	AC-DC	No	58x9x4 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BM-206 Walnut	Table Compact	12.95	540-1730	AC-DC	No	7x9x15 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BY-233	Table Compact	12.95	540-1730	AC-DC	No	7x9x15 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BM-208	Table Compact	14.95	540-1730	AC-DC	No	8x12x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
Q-236	Table Compact	14.95	540-1730	AC-DC	No	8x12x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BM-215	Table Compact	14.95	540-1730	AC-DC	No	8x12x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BE-198 Walnut	Table Compact	19.95	540-1730	AC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BE-198 Ivory	Table Compact	24.95	540-1730	AC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BL-200 Walnut	Table Compact	24.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BL-200 Ivory	Table Compact	24.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BL-200 Walnut	Table Compact	24.95	540-1730	AC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BL-200 Ivory	Table Compact	24.95	540-1730	AC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BL-210	Table Compact	24.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
AU-190	Table Compact	24.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BP-207 Walnut	Table Compact	24.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
AA-207 Walnut	Table Compact	24.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BP-207 Ivory	Table Compact	29.95	540-1730	AC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
AA-207 Ivory	Table Compact	29.95	540-1730	AC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
CA-234	Table Compact	34.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
AU-213	Table Compact	29.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BP-204	Table Compact	29.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
AA-204	Table Compact	29.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BL-214	Table Compact	29.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BL-214	Table Compact	29.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BL-197	Table Compact	39.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BF-169	Table Compact	39.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BF-231	Table Compact	39.95	540-1730	AC-DC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BQ-228	Table Compact	49.95	540-1730	AC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BQ-229	Table Compact	59.95	540-1730	AC	No	8x13x6 1/2	455	6A8, 6K7, 607, 25Z6, 25L6	A
BM-216	Phono. Comb.	19.95	540-1730	AC	No	7x9x10 1/2	455	6A8, 6K7, 607, 25L6, 25Z6	A
AX-219	Phono. Comb.	29.95	540-1730	AC	No	7x9x10 1/2	455	6A8, 6K7, 607, 25L6, 25Z6	A
AX-221	Phono. Comb.	44.95	540-1730	AC	No	9x13x11 1/2	455	6A8, 6K7, 607, 25L6, 25Z6	A
AX-221	Phono. Comb.	54.95	540-1730	AC-DC	No	9x13x11 1/2	455	6A8, 6K7, 607, 25L6, 25Z6	A
BL-220	Phono. Comb.	59.95	540-1580; 1580-4200	AC	No	12x18x13 1/2	455	6A7, 6D6, 607G, 41, 80	A
BL-220	Phono. Comb.	69.95	540-1580; 1580-4200	AC-DC	No	12x18x13 1/2	455	6A7, 6D6, 607G, 41, 80	A
BL-218	Phono. Comb.	69.95	540-1580; 1580-4200	AC	No	12x20x14 1/2	455	6A7, 6D6, 607G, 41, 80	A
BL-218	Phono. Comb.	79.95	540-1580; 1580-	AC-DC	No	12x20x14 1/2	455	6A7, 6D6, 607G, 41, 80	A
AX-222	Port. Phono. Comb.	59.95	540-1730	AC	No	9x14x14 1/2	455	6A8, 6K7, 607, 25L6, 25Z6	A
AX-232	Port. Phono. Comb.	109.95	540-1730	AC	No	11x16x16 1/2	455	6A8, 6K7, 607, 25L6, 25Z6	A
BQ-223	Phono. Comb.	129.95	540-1730	AC	No	11x16x16 1/2	455	6A8, 6K7, 607, 25L6, 25Z6	A
BR-224	Phono. Comb.	169.95	540-18000	AC	No	36x32x14 1/2	455	6A8, 6K7, 607, 25L6, 25Z6	A
BR-224-A	Phono. Comb.	219.95	540-18000	AC	No	37x36x13 1/2	455	6A8, 6K7, 607, 25L6, 25Z6	A
X-175	Phono. Comb.	75.00	540-18000	AC	No	46x44x19	455	6K7, 6K8, 7-6C5, 2-6F6, 2-80, 6G5	A
BQ-225	Console	69.95	540-1730; 5600-18000	AC	No	36x32x14 1/2	455	6K8, 6K7, 76, 80, 6A8C5G, 607G	A
BQ-230	Console	89.95	540-1730; 5600-18000	AC	No	40x25x14 1/2	455	6K8, 6K7, 76, 80, 6A8C5G, 607G	A
BR-226	Console	109.95	540-18000	AC	No	37x36x13 1/2	455	2-6K7, 6K8, 3-6J5, 4-6A8C5G, 2-80, 6Q7	A
BS-227	Console	119.95	540-18000	AC	No	41x24x14 1/2	455	3-6K7, 6K8, 6Q7, 3-6J5, 4-6A8C5G, 2-80	A

SPECIFICATIONS

INTERMEDIATE FREQUENCY (KC.)

SHIPPING WEIGHT (LBS.)

ARR "B" DIMENSIONS (H-W-D) (INCHES)

RANGE IN KILOCYCLES

LIST PRICE

TYPE

MODEL

(Emerson Cont.)

MODEL	TYPE	LIST PRICE	RANGE IN KILOCYCLES	SUPPLY VOLTAGE	ARR "B" DIMENSIONS (H-W-D) (INCHES)	SHIPPING WEIGHT (LBS.)	TUBES	INTERMEDIATE FREQUENCY (KC.)
AJ-149	Farm Table	\$19.95†	540-1730	2 DC	8 1/2 x 13 x 6 1/2	12 1/2	1A4, 1B5, 1C6, 1F4, 30	455
AJ-192	Farm Table	24.95†	540-1730	2 DC	9 1/2 x 19 1/2 x 10	12 1/2	1A4, 1B5, 1C6, 1F4, 30	455
AP-179	Farm Table	39.95†	540-1730; 5600-18000	2 DC	10 1/2 x 17 1/2 x 8 1/2	12 1/2	3-1A4, 1B5, 1C6, 1F4, 1E1	455
AS-179	Farm Table	39.95†	540-1730; 5900-22000	6 DC†	10 1/2 x 17 1/2 x 8 1/2	12 1/2	6D8G, 2-6S7G, 6Q7G, 41, 3M7Z-419	455
AJ-137	Farm Port.	39.95†	540-1730	2-volt	14 1/2 x 12 1/2 x 7 1/2	18 1/2	1A4, 1B5, 1C6, 1F4, 30	455

* Available in three colors.

Galvin Manufacturing Corporation, 4545 Augusta Boulevard, Chicago, Ill., (Motorola)

MODEL	TYPE	LIST PRICE	RANGE IN KILOCYCLES	SUPPLY VOLTAGE	ARR "B" DIMENSIONS (H-W-D) (INCHES)	SHIPPING WEIGHT (LBS.)	TUBES	INTERMEDIATE FREQUENCY (KC.)
59T1	Table	\$14.95	538-1720	AC-DC	7 1/2 x 10 1/2 x 6 1/2	9 1/2	6A7, 6D6, 75, 25A7G, M73B	455
59T2	Table	19.95	538-1720	AC	7 1/2 x 11 1/2 x 6 1/2	9 1/2	6A7, 6D6, 75, 41, 80	455
59T3	Table	19.95	538-1720	AC-DC	7 1/2 x 11 1/2 x 6 1/2	9 1/2	6A7, 6D6, 75, 25A7G, M73B	455
59T4	*Table	24.95	538-1720	AC	7 1/2 x 11 1/2 x 6 1/2	9 1/2	6A7, 6D6, 75, 41, 80	455
59T5	*Table	29.95	538-1720; 5650-18000	AC	8 1/2 x 17 x 7	18 1/2	6A7, 6D6, 75, 41, 80	455

* Push-button tuning.

Howard Radio Co., 1735 Belmont Ave., Chicago, Ill., (Howard)

MODEL	TYPE	LIST PRICE	RANGE IN KILOCYCLES	SUPPLY VOLTAGE	ARR "B" DIMENSIONS (H-W-D) (INCHES)	SHIPPING WEIGHT (LBS.)	TUBES	INTERMEDIATE FREQUENCY (KC.)
200	Compact		540-1750	AC-DC	4 1/2 x 7 1/2	7	6K7CT, 251L6, 6J7GT, 25Z5	TRP
*220	Compact		540-1750	AC	7 1/2 x 9 1/2 x 7	12	6A7, 75, 80, 6D6, 41	465
270	Compact		540-1750	AC	10 1/2 x 13 1/2 x 7	17	6A7, 75, 80, 6D6, 41	465
*375	Table Compact		1700-5500; 5500-18000	AC	12 x 18 x 9	22	6A8, 6K7, 6Q7G, 6F5G, 6U5, 6V6G, 80	465
*468	Table Compact		1700-5500; 5500-18000	AC	12 x 18 x 9	25	6A8, 2-6K7, 6Q7G, 6F5G, 6U5, 6V6G, 80	465
*318D	Console		1700-5500; 5500-18000	AC	3 1/2 x 23 1/2	56	6A8, 6K7, 6Q7G, 6F5G, 6U5, 6V6G, 80	465
*418	Console		540-1700; 1700-5500; 5500-18000	AC	4 1/2 x 23 1/2	76	3-6K7, 6Q7G, 6J5G, 2-6V6G, 6J8, 6F5G, 6U5, 80	465
*325D	Console		540-1700; 1700-5500; 5500-18000	AC	3 1/2 x 23 1/2	53	6A8, 6K7, 6Q7G, 6F5G, 6U5, 6V6G, 80	465
*525	Console		540-1700; 1700-5500; 5500-18000	AC	4 1/2 x 23 1/2	85	3-6K7, 6U5, 6J5G, 6F5G, 6Q7G, 6A8G, 2-80, 2-6L6G	465-1560
480	Communication		540 to 65000	AC	3 1/2 x 36 1/2	135	6J8G, 6Q7G, 6C5, 6K7, 41, 5W4	465
430	Communication		16000-40000	AC	7 5/8 x 16	16	6J8G, 6Q7G, 6C5, 6K7, 41, 5W4	465
440	Communication		540-1200; 1200-2800; 2800-6800; 6500-16000; 16000-40000	AC	10 1/2 x 12	44	3-6K7, 2-6J7G, 6V6G, 6J8G, 6Q7G, 80	465-1560
450A	Communication		540-65000	AC	11 x 20 1/2	56	2-6J7G	465
HA7	Auto		540-1600	6 DC	7 1/2 x 10 1/2	21	2-6K7G, 6A8G, 6Q7G, 6V6G, 6Z4, 6C5G	262
HA8	Auto		540-1600	6 DC	7 1/2 x 10 1/2	26	2-6K7G, 6A8G, 6Q7G, 6V6G, 6Z4, 6C5G	262
HA9	Auto		540-1600	6 DC	7 1/2 x 10 1/2	26	2-6K7G, 6A8G, 6Q7G, 6V6G, 6Z4, 6C5G	262

* Automatic tuning.

Noblett-Sparks Industries, Columbus, Ohio, (Armin)

MODEL	TYPE	LIST PRICE	RANGE IN KILOCYCLES	SUPPLY VOLTAGE	ARR "B" DIMENSIONS (H-W-D) (INCHES)	SHIPPING WEIGHT (LBS.)	TUBES	INTERMEDIATE FREQUENCY (KC.)
58	Table	\$16.95	540-1750	AC	5 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
58A	Table	19.95	540-1750	AC	5 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
68	Table	24.95	540-1725	AC	5 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
78	Table	29.95	540-1750	AC	5 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
88	Phono-Table	39.95	540-1750	AC	5 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
518	Table		1650-4000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
618	Table		540-1750; 5700-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
628CS	Chairside		540-1750; 5700-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
638CS	Chairside		540-1750; 5700-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
638	Console		540-1750; 5700-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
638	Console		540-1750; 5700-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
818	Table		1750-5500; 5500-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
828A	Console		540-1750; 1750-5500; 5500-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
838CS	Chairside		540-1750; 1750-5500; 5500-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
848CS	Chairside		540-1750; 1750-5500; 5500-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
828AT	Phono-Chairside		540-1750; 1750-5500; 5500-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
838AT	Console		540-1750; 1750-5500; 5500-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
528CS	Chairside		540-1750; 1750-5500; 5500-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
1237D	Console		540-1750; 1750-5500; 5500-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
1247A	Console		540-1750; 1750-5500; 5500-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
1247X	Console		540-1750; 1750-5500; 5500-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
1247Y	Console		540-1750; 1750-5500; 5500-18000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455
1427	Console		540-1600; 1600-4000; 4600-7500; 7400-12000; 11500-19000	AC	6 1/2 x 10 1/2	12	6A8, 6K7, 6Q7G, 251L6G, 25Z5G	455

Philco Radio & Tele. Corp., Philadelphia, Pa., (Philco)

MODEL	TYPE	LIST PRICE	RANGE IN KILOCYCLES	SUPPLY VOLTAGE	ARR "B" DIMENSIONS (H-W-D) (INCHES)	SHIPPING WEIGHT (LBS.)	TUBES	INTERMEDIATE FREQUENCY (KC.)
518B	Console	\$129.50	540-1700; 1700-5900; 5800-18200	AC	38 1/2 x 29 1/2 x 14 1/2	470	6D8G, 6S7G, 6T7G, 2-1F5G	470
578B	Table	170.00	540-1750; 5600-18000	AC	37 1/2 x 28 1/2 x 17 1/2	470	1C7G, 1D5G, 1H6G, 1G5G	470
617B	Table	190.00	540-1750; 5700-18000	AC	41 1/2 x 31 1/2 x 15 1/2	470	15, 6A7, 15, 75, 76, 19	455
627B	Table	52.95	540-1750; 5700-18000	AC	41 1/2 x 31 1/2 x 15 1/2	470	15, 6A7, 15, 75, 76, 19	455
618B	Table	55.00	540-1750; 5700-18000	AC	11 1/2 x 19 1/2 x 10 1/2	470	1C6, 1A4, 30, 1A4, 2-950	455
628B	Table	39.95	540-1750; 5700-18000	AC	10 1/2 x 18 1/2 x 10 1/2	470	1C6, 1A4, 30, 1A4, 2-950	455
638B	Table	45.00	540-1725; 5700-18000	AC	10 1/2 x 18 1/2 x 10 1/2	470	1C6, 1A4, 30, 1A4, 2-950	455
*39-25 T	Table	39.95	540-1725; 5700-18000	AC	10 1/2 x 18 1/2 x 10 1/2	470	1C6, 1A4, 30, 1A4, 2-950	455
*39-17 F	Table	29.95	540-1720	AC	8 1/2 x 23 1/2	470	5U4G	470
*39-17 T	Table	29.95	540-1720	AC	8 1/2 x 23 1/2	470	5U4G	470
*39-18 F	Table	39.95	540-1720	AC-DC	8 1/2 x 23 1/2	470	5U4G	470
*39-18 T	Table	39.95	540-1720	AC-DC	8 1/2 x 23 1/2	470	5U4G	470
*39-19 F	Table	49.95	540-1720; 5450-19000	AC	8 1/2 x 23 1/2	470	5U4G	470
*39-19 T	Table	35.00	540-1720; 5420-19000	AC	8 1/2 x 23 1/2	470	5U4G	470
*39-12 CB	Table Comp.	20.00	540-1720	AC	8 1/2 x 23 1/2	470	5U4G	470
39-12 T	Table Comp.	25.00	540-1720	AC	8 1/2 x 23 1/2	470	5U4G	470

MODEL	TYPE	LIST PRICE	RANGE IN KILOCYCLES	SUPPLY VOLTAGE	ARE "B" BATT. REQUIRED	DIMENSIONS (H-W-D) (INCHES)	SHIPPING WEIGHT (LBS.)	TUBES	INTERMEDIATE FREQUENCY (KC.)
<i>Philco Radio & Tele. Corp. Cont.</i>									
39-15 CB	Table Comp.	\$25.00	540-1720; 5420-19900	AC	No	8x11x6 1/2		6A7, 6D6, 75, 41, 80	470
39-70 F	Farm Console	34.95	540-1720	AC	Yes	17x22x9 1/2			470
39-70 F	Farm Table	24.45	540-1720	AC	Yes	13x11x6 1/2			470
*39-75 F	Farm	44.95	540-1720	AC	Yes	8x13x6 1/2			470
39-75 T	Farm	29.95	540-1720	AC	Yes	39x24x12 1/2			470
39-80 XF	Farm Console	59.95	540-1720	AC	Yes	17x17x9 1/2			470
39-80 B	Farm Table	42.50	540-1720	AC	Yes	39x24x12 1/2			470
*39-85 XF	Farm	69.95	540-1720; 5600-18000	AC	Yes	17x17x9 1/2			470
*35-85 B	Farm	52.50	540-1720; 5600-18000	AC	Yes	17x17x9 1/2			470
<i>*A Automatic Tuning.</i>									
<i>Pilot Radio Corp., 3706 36 St., Long Island City, N. Y. (PILOT Radio)</i>									
TH-651	Table	\$26.50	1705-531	AC	No	9x16x8			456
TH-762	Table	42.50	18750-5769; 1714-531	AC	No	9x18x9			456
TH-554	Table	56.50	24790-8330; 9710-2913; 1724-530	AC	No	12x20x9			456
*TH-664	Table	66.50	24790-8330; 9710-2913; 1724-530	AC	No	14x22x11 1/2			456
*TH-674	Table	79.50	25640-8880; 9680-2970; 1724-519	AC	No	14x22x11 1/2			456
TG-508	Table	104.50	70000-530	AC	No	14x22x11 1/2			456
*TH-594	Table	112.50	24790-9620; 9740-2193; 1865-510	AC	No	15x25x12 1/2			456
TG-528	Table	129.50	70000-530	AC	No	12x17x11 1/2			456
WH-141	Bakelite Table	19.90	1705-531	AC	No	9x16x8			456
TH-151	Table	26.50	1705-531	AC	No	8x15x6 1/2			456
WG-352	Bakelite Walnut Table	37.50	18800-5700; 1680-545	AC	No	8x15x6 1/2			456
TG-372	Ivory Beestleware Table	42.50	18800-5700; 1680-545	AC	No	8x15x6 1/2			456
TH-454	Table	42.50	18750-5769; 1714-531	AC	No	9x18x9			456
*TH-474	Table	56.50	24790-8330; 9710-2913; 1724-530	AC	No	12x20x9			456
TG-184	Table	67.50	18800-5880; 6250-1930; 1650-540	AC	No	13x22x9 1/2			456
*TH-484	Table	79.50	25640-8880; 9680-2970; 1724-519	AC	No	12x22x10			456
HX-304	Table	99.50	23600-525	AC	No	14x22x11 1/2			456
TG-584	Table	69.50	18800-5880; 6250-1930; 1650-540	AC	No	13x22x9 1/2			456
TG-674	Table	69.50	18800-5880; 6250-1930; 1650-540	AC	No	21x13x10 1/2			456
XG-674	Upright Table	33.90	18800-5880; 1720-510	AC	No	9x16x8			456
TG-462	Upright Table	67.50	18800-5880; 1720-510	AC	No	21x13x10 1/2			456
CG-674	Console	99.50	18800-5880; 6250-1930; 1650-540	AC	No	21x13x10 1/2			456
CG-508	Console	149.50	70000-530	AC	No	42x25x15 1/2			456
CG-528	Console	169.50	18800-5880; 6250-1930; 1650-540	AC	No	42x25x15 1/2			456
CG-184	Console	129.50	18800-5880; 6250-1930; 1650-540	AC	No	42x25x15 1/2			456
CX-304	Console	149.50	18800-5880; 6250-1930; 1650-540	AC	No	42x25x15 1/2			456
*PH-604	Phono, Comb.	149.50	24790-8330; 9710-2913; 1724-530	AC	No	42x25x15 1/2			456
OG-674	Phono, Comb.	149.50	18800-5880; 6250-1930; 1650-540	AC	No	42x25x15 1/2			456
OG-584	Phono, Comb.	149.50	18800-5880; 6250-1930; 1650-540	AC	No	42x25x15 1/2			456
RG-674	Low Boy	169.50	18800-5880; 6250-1930; 1650-540	AC	No	34x37x18 1/2			456
*PH-374	Phono, Comb.	169.50	25640-8880; 9680-2970; 1724-519	AC	No	42x25x15 1/2			456
SG-674	Auto Comb.	239.50	18800-5880; 6250-1930; 1650-540	AC	No	34x37x18 1/2			456
PG-528	Auto Comb.	275.00	70000-530	AC	No	34x37x18 1/2			456
TP-423	Table Comp.	99.50	18800-5880; 6250-1930; 1650-540	AC	No	16x17x14 1/2			456
*PH-474	Phono, Comb.	149.50	24790-8330; 9710-2913; 1724-530	AC	No	42x25x15 1/2			456
QG-184	Phono, Comb.	149.50	18800-5880; 6250-1930; 1650-540	AC	No	42x25x15 1/2			456
RG-184	Phono, Comb.	169.50	18800-5880; 6250-1930; 1650-540	AC	No	42x25x15 1/2			456
*PH-484	Phono, Comb.	194.50	25640-8880; 9680-2970; 1724-519	AC	No	42x25x15 1/2			456
OX-304	Phono, Comb.	194.50	23600-525	AC	No	44x26x18 1/2			456
SG-184	Auto, Phono.	239.50	18800-5880; 6250-1930; 1650-540	AC	No	34x37x18 1/2			456
RX-304	Auto, Comb.	249.50	23600-525	AC	No	44x26x18 1/2			456
XG-56	Table	74.50	24000-1974; 1654-529	6-Volt DC	No	21x15x10 1/2			456
XG-5206	Table	76.50	24000-1974; 1654-529	32-Volt DC	No	21x15x10 1/2			456
<i>*A Automatic Tuning.</i>									
<i>Sentinel Radio Corporation, 2222 Diversey Parkway, Chicago, Illinois, (Sentinel)</i>									
118BT	Table Compact	\$17.95	540-1730	1 1/2 DC	Yes	7x10x6 1/2	5 1/2		455
118BCT	Console	34.50	540-1730	1 1/2 DC	Yes	30x18x9 1/2	28		455
127BT	Table	27.95	540-1730	1 1/2 DC	Yes	9x18x10 1/2	21 1/2		455
127BC	Console	39.95	540-1730	1 1/2 DC	Yes	38x22x11 1/2	48 1/2		455
127BCT	Console	39.95	540-1730	1 1/2 DC	Yes	30x18x9 1/2	29		455
119BT	Table	24.95	540-1730	6 DC	No	7x10x6 1/2	17 1/2		455
119BCT	Console	39.95	540-1730	6 DC	No	30x18x9 1/2	33		455
130BT	Table	24.95	540-1730; 5750-18100	6 DC	No	11x18x9	19		455
130BC	Console	540-1730; 5750-18100	6 DC	No	38x22x11 1/2	58		455	
140BT	Table	1720-540; 2500-7500; 7500-24000	6 DC	No	11x21x10 1/2	26		455	
140BC	Console	1720-540; 2500-7500; 7500-24000	6 DC	No	40x25x13	59		455	
143LT	Table	540-1730; 5800-18300	32 DC	No	11x18x9	17		455	
143LC	Table	540-1730; 5800-18300	32 DC	No	38x22x11 1/2	57		455	
144XT	Table	540-1720; 5700-18300	6 DC-110 AC	No	11x18x9	20		455	
144XC	Table	540-1720; 5700-18300	6 DC-110 AC	No	38x22x11 1/2	59		455	
137UT	Compact Table	\$15.00	540-1730	AC	No	5x7x4 1/2	4		455
124AT	Table	19.99	535-1730	AC	No	8x12x7	11 1/2		455
124AA	Chartride	39.95	535-1730	AC	No	2 1/2x11x21	35 1/2		455
124ACT	Console	39.95	535-1730	AC	No	30x18x9 1/2	35		455
125ATE	Table	540-1730; 5700-18300	AC	No	11x18x9 1/2	20 1/2		455	
125ACE	Table	540-1730; 5700-18300	AC	No	40x25x13	52		455	
142AT	Table	540-1730; 5700-18300	AC	No	11x18x9	19		455	
<i>Sparks Withington Co., Jackson, Michigan, (Sparks)</i>									
5008	Compact	\$12.95	540-1750	AC-DC	No	7x12x7 1/2			TRP
5018	*Compact	19.95	540-1750	AC-DC	No	7x14x6 1/2			TRP
5518A	*Table	19.95	540-1750	AC	No	7x14x6 1/2			456

MODEL	TYPE	LIST PRICE	RANGE IN KILOCYCLES	SUPPLY VOLTAGE	ARE "B" BATT. REQUIRED	DIMENSIONS (H-W-D) (INCHES)	SHIPPING WEIGHT (LBS.)	INTERMEDIATE FREQUENCY (KC.)	TUBES
<i>Sparks Willington Co. Cont.</i>									
538	Table	24.95	540-19000	AC	No	11x19x9 1/2	455	6A8G, 6K7G, 6Q7G, 6P6G, 5Y3	
540	*Table	34.95	540-1720; 6000-20000	AC	No	10 1/2x19x8 1/2	456	6A7, 78, 75, 42, 80	
541	*Table	29.95	540-19000	AC	No	11x15 1/2x11 1/2	456	6A8G, 6K7G, 6Q7G, 6P6G, 5Y3, 6E5	
628	*Table	44.95	540-1720; 6000-20000	AC	No	11x21x10	456	6A7, 78, 75, 76, 6AC5G, 80	
678A	*Console	59.95	540-19000	AC	No	40x23x12 1/2	456	6A8G, 6K7G, 6Q7G, 6P6G, 5Y3, 6E5	
7618	*Console	69.95	540-1720; 6000-20000	AC	No	38 1/2x24 1/2	456	6A7, 78, 75, 76, 6AC5G, 80, 6E5	
8618	*Console	89.95	540-18000	AC	No	35x27x16 1/2	456	2-6K7, 6A8G, 6Q7G, 6H6G, 6J7G, 6V6G, 5Y3	
1068	*Console	99.95	540-19000	AC	No	43x27x13 1/2	456	3-6K7G, 6A8G, 6Q7G, 6H6G, 6J7G, 6E5, 6R7G, 6C5G, 6I5G, 2-2A3, 5X4G, 5Y3	
1568	*Console	159.50	540-19000	AC	No	43x27x13 1/2	456	3-6K7G, 6A8G, 6Q7G, 6H6G, 6J7G, 6E5, 6R7G, 6C5G, 6I5G, 2-2A3, 5X4G, 5Y3	
1288P	*Phono-Comb.	250.00	540-19000	AC	No	44 1/2x27 1/2x13	456	6A7, 78, 75, 42, 80	
5218P	*Phono-Comb.	59.95	540-1720; 6000-20000	AC	No	44 1/2x27 1/2x13	456	6A7, 78, 75, 42, 80	
<i>* Automatic tuning.</i>									
<i>Stromberg-Carlson Tel. Mfg. Co., 100 Carlisle Rd., Rochester, N. Y. (Stromberg-Carlson)</i>									
127-H	Table	\$103.50	540-1500; 1450-3500; 5900-18000	AC-DC	No	13 1/2x23 1/2x11 1/2	465	2-6K7, 6A8, 6Q7, 2-48, 6E5, 2-25Z5	
127-R	Table	47.50	540-1500; 1450-3500; 5900-18000	AC-DC	No	41x30x15	465	2-6K7, 6A8, 6Q7, 2-48, 6E5, 2-25Z5	
225-H	Table	37.50	540-1500; 1450-3500; 5900-18000	AC-DC	No	9 1/2x16x8 1/2	465	6A8, 6K7, 6Q7, 2-46G, 2-5Z6G	
228-L	Table	95.00	540-1500; 1450-3500; 5900-18000	AC-DC	No	40x24 1/2x10 1/2	465	2-6K7, 6A8, 6Q7, 2-46G, 2-5Z6G	
229-P	Phono-Comb.	199.50	540-1500; 1450-3500; 5900-18000	AC	No	43x26 1/2x16 1/2	465	6A8, 6K7, 6Q7, 6E5, 6P5, 5V4G	
231-P	Coffee Table	135.00	530-1700; 1700-5600; 5600-18000	AC	No	21x27x20 1/2	465	6A8, 6K7, 6H6, 6E5, 6P5, 6C5, 5V4G	
231-R	Phono-Comb.	225.00	530-1700; 1700-5600; 5600-18000	AC	No	33 1/2x35 1/2	465	6A8, 6K7, 6H6, 6E5, 6P5, 6C5, 5V4G	
235-L	Arm Chair	145.00	530-1700; 1700-5600; 5600-18000	AC	No	14x24x10 1/2	465	6A8, 6K7, 6H6, 6E5, 6P5, 6C5, 5V4G	
235-H	Table	129.50	530-1700; 1700-5600; 5600-18000	AC	No	42x24 1/2x10 1/2	465	6A8, 6K7, 6H6, 6E5, 6P5, 6C5, 5V4G	
240-S	Console	129.50	530-1700; 1700-5600; 5600-18000	AC	No	42x24 1/2x10 1/2	465	6A8, 6K7, 6H6, 6E5, 6P5, 6C5, 5V4G	
240-S	Drop Door	250.00	530-1700; 1700-5600; 5600-18000	AC	No	42x34x14	465	2-6K7, 6A8, 2-6C5, 6H6, 6E5, 2-6P6, 6C5, 5U4G	
245-R	Desk	225.00	530-1700; 1700-5600; 5600-18000	AC	No	41x30x15	465	2-6K7, 6A8, 2-6C5, 6H6, 6E5, 2-6P6, 6C5, 5U4G	
245-L	Half Round	165.00	530-1700; 1700-5600; 5600-18000	AC	No	42x25 1/2x11 1/2	465	2-6K7, 6A8, 2-6C5, 6H6, 6E5, 2-6P6, 6C5, 5U4G	
245-M	Console	195.00	530-1700; 1700-5600; 5600-18000	AC	No	43 1/2x28 1/2x11 1/2	465	2-6K7, 6A8, 2-6C5, 6H6, 6E5, 2-6P6, 6C5, 5U4G	
250-L	Console	260.00	530-1600; 1600-4800; 4800-11000;	AC	No	43 1/2x28 1/2x11 1/2	456	2-6K7, 6A8, 2-6C5, 6H6, 6E5, 2-6P6, 6C5, 5U4G	
255-L	Console	275.00	11000-22000; 22000-60000	AC	No	43 1/2x28 1/2x11 1/2	465	2-6K7, 6A8, 2-6J7, 2-6H6, 6C5, 2-6L6, 6G5, 2-6L6, 6G5, 2-6L6, 6Q7, 6G5, 5U4G	
260-L	Console	360.00	11000-22000; 22000-60000	AC	No	44x28x15 1/2	465	2-6K7, 6A8, 2-6J7, 2-6H6, 6C5, 2-6L6, 6Q7, 6G5, 5U4G	
260-P	Phono-Comb.	795.00	530-1600; 1600-4800; 4800-11000;	AC	No	45x51x19 1/2	465	2-6K7, 6A8, 2-6J7, 2-6H6, 6C5, 2-6L6, 6Q7, 6G5, 5U4G	
320-H	Table	39.95	530-1700; 5800-18000	AC	No	9 1/2x16x8 1/2	455	6A8, 6K7, 6Q7G, 6V6G, 80	
320-T	Duncan Phyfe	99.50	530-1700; 5800-18000	AC	No	29 1/2x20 1/2x13	455	6A8, 6K7, 6Q7G, 6V6G, 80	
325-J	Table	49.95	530-1700; 5800-18000	AC	No	10 1/2x18 1/2x8 1/2	455	6A8, 6K7, 6Q7G, 6V6G, 80	
325-N	Chippendale Commode	99.50	530-1700; 5800-18000	AC	No	31x19 1/2x13 1/2	455	6A8, 6K7, 6Q7G, 6V6G, 80	
325-S	Butterfly Table	99.50	530-1700; 5800-18000	AC	No	29 1/2x22 1/2x13	455	6A8, 6K7, 6Q7G, 6V6G, 80	
335-L	Console	79.95	530-1700; 5800-18000	AC	No	40 1/2x24 1/2x11 1/2	455	6A8, 6K7, 6H6, 6E5, 80, 6U5, 6P6G	
336-P	Phono-Comb.	135.00	530-1700; 5800-18000	AC	No	22 1/2x28 1/2x15	455	6A8, 6K7, 6H6, 6E5, 80, 6U5, 6P6G	
337-H	Table	89.50	530-1700; 5800-18000	AC	No	12 1/2x22 1/2x8 1/2	455	6K8, 6K7, 6H6, 6P6, 6P5, 80, 6U5	
337-L	Console	99.95	530-1700; 2250-7600; 7600-23000	AC	No	40x25x11 1/2	455	6A8, 6K7, 6H6, 6E5, 80, 6U5	
340-F	Console	135.00	530-1700; 5800-18000	AC	No	41 1/2x25 1/2x13 1/2	455	6A8, 6K7, 6H6, 6E5, 80, 6U5	
340-H	Table	115.00	530-1700; 5800-18000	AC	No	13 1/2x24 1/2x10	455	6A8, 6K7, 6H6, 6E5, 80, 6U5	
340-M	Console	127.50	530-1700; 5800-18000	AC	No	43 1/2x25 1/2x12 1/2	455	6A8, 6K7, 6H6, 6E5, 80, 6U5	
340-P	Phono-Comb.	175.00	530-1700; 5800-18000	AC	No	37x20 1/2x13 1/2	455	6A8, 6K7, 6H6, 6E5, 80, 6U5	
340-V	Phono-Comb.	119.50	530-1700; 5800-18000	AC	No	41 1/2x25 1/2x13 1/2	455	6A8, 6K7, 6H6, 6E5, 80, 6U5	
341-P	Phono-Comb.	265.00	530-1700; 5800-18000	AC	No	41 1/2x25 1/2x13 1/2	455	6A8, 6K7, 6H6, 6E5, 80, 6U5	
341-R	Armchair	145.00	530-1700; 5800-18000	AC	No	24x28 1/2x17 1/2	455	6A8, 6K7, 6H6, 6E5, 80, 6U5	
345-F	Chippendale Console	165.00	530-1700; 2250-7600; 7600-23000	AC	No	42x26 1/2x13 1/2	455	2-6K7, 6K8, 6H6, 6P5, 6C5, 2-6V6G, 5Z3, 6U5	
345-M	Console	150.00	530-1700; 2250-7600; 7600-23000	AC	No	42x26 1/2x13 1/2	455	2-6K7, 6K8, 6H6, 6P5, 6C5, 2-6V6G, 5Z3, 6U5	
350-M	Console	175.00	530-1700; 5800-18000	AC	No	44 1/2x26 1/2x14 1/2	455	6A8, 5Z3, 2-6K7, 6B8, 6P8G, 6C5, 2-6P6, 6U5, 6H6	
350-P	Phono-Comb.	360.00	530-1700; 1700-5600; 5600-18000	AC	No	43x34 1/2x16 1/2	455	6A8, 5Z3, 2-6K7, 6B8, 6P8G, 6C5, 2-6P6, 6U5, 6H6	
350-R	Half Round	215.00	530-1700; 1700-5600; 5600-18000	AC	No	40x30x16 1/2	455	6A8, 5Z3, 2-6K7, 6B8, 6P8G, 6C5, 2-6P6, 6U5, 6H6	
350-V	Corner Console	199.50	530-1700; 1700-5600; 5600-18000	AC	No	42x29 1/2x16 1/2	455	6A8, 5Z3, 2-6K7, 6B8, 6P8G, 6C5, 2-6P6, 6U5, 6H6	
360-M	Corner Console	265.00	520-1700; 1700-5600; 5600-18000	AC	No	46 1/2x29 1/2x16 1/2	455	6A8, 5Z3, 2-6K7, 6B8, 6P8G, 6C5, 2-6P6, 6U5, 6H6	
370-M	Console	325.00	530-1700; 1700-5600; 5600-18000;	AC	No	46 1/2x31 1/2x16 1/2	455	6A8, 5Z3, 2-6K7, 6B8, 6P8G, 6C5, 2-6P6, 6U5, 6H6	
<i>* FOB Factory.</i>									
<i>Westinghouse—Radio Dept. 150 Varick St., New York, N. Y. (WESTINGHOUSE)</i>									
WR-150-I	Compact	540-1720	540-1720	AC-DC	No	9 1/2x6 1/2x5	455	2-6J7, 25L6G, 25Z6G, 155B	
WR-150-W	Compact	540-1720	540-1720	AC-DC	No	9 1/2x6 1/2x5	455	2-6J7, 25L6G, 25Z6G, 155B	
WR-152	Compact	540-1720	540-1720	AC-DC	No	11x7x5	455	6A8G, 6K7G, 6Q7G, 25L6G, 25Z6G, BK42	
WR-154	Table	540-1500; 1500-3000	540-1500; 1500-3000	AC-DC	No	11 1/2x8x7	455	6A8G, 6K7G, 6Q7G, 25L6G, 25Z6G	
WR-256	Table	540-1720	540-1720	AC-DC	No	15 1/2x8 1/2x6	455	6A8G, 6K7, 6Q7G, 25L6G, 25Z6G, BK42	
WR-140	Table	540-1700; 6000-17000	540-1700; 6000-17000	AC-DC	No	13 1/2x9 1/2x7 1/2	455	6A8, 6K7, 6Q7G, 25L6, 25Z6G, K49CB	
WR-258	Table	540-1720	540-1720	AC-DC	No	12 1/2x9 1/2x6 1/2	455	6A8G, 6K7, 6Q7G, 6K6G, 5Y4G	
WR-260	Table	540-1550; 1550-3600	540-1550; 1550-3600	AC	No	17 1/2x9 1/2x6 1/2	455	6A8G, 6K7, 6Q7G, 6K6G, 5Y4G	
WR-262	Table	5800-18000	5800-18000	AC	No	19 1/2x10 1/2x8 1/2	455	6A8G, 6K7G, 6Q7G, 6V6G, 5Y4G, 6U5	
WR-264	Table	540-1720; 7000-22000; 2300-7000	540-1720; 7000-22000; 2300-7000	AC	No	15 1/2x12 1/2x9 1/2	455	6K8, 6K7, 6A6, 6F5, 6K6G, 5Y4G, 6U5	
WR-228	Table	540-18500	540-18500	AC	No	23 1/2x12 1/2x9 1/2	455	6K8, 6K7, 6Q7, 2-6P6G, 5Y3G, 6U5	
WR-326	Console	540-18000	540-18000	AC	No	23x34 1/2x11 1/2	455	6A8, 6K7, 6A6, 6F5, 6V6G, 5Y3G, 6U5	
WR-328	Armchair	540-18000	540-18000	AC	No	25x26x14 1/2	455	6A8, 6K7, 6A6, 6F5, 6V6G, 5Y3G, 6U5	
WR-328	Console	540-18000	540-18000	AC	No	23x40 1/2x11 1/2	455	6A8, 6K7, 6A6, 6F5, 6V6G, 5Y3G, 6U5	
WR-342	Console	540-18000	540-18000	AC	No	23x40 1/2x11 1/2	455	6A8, 6K7, 6A6, 6F5, 6V6G, 5Y3G, 6U5	
WR-366	Console	540-18000	540-18000	AC	No	23x40 1/2x11 1/2	455	6A8, 6K7, 6A6, 6F5, 6V6G, 5Y3G, 6U5	
WR-370	Console	540-1720; 2300-7000; 7000-22000	540-1720; 2300-7000; 7000-22000	AC	No	25x40x12 1/2	455	6K7, 6A8, 6K7, 6Q7, 2-6P6G, 5Y3G, 6U5	
WR-472	Radio-Phono. Comb.	*540-1720	*540-1720	AC	No	27 1/2x41 1/2x15 1/2	455	2-6K7, 2-6P6G, 6A8, 6J7, 6Q7G, 6F5, 5U4G, 6U5	
WR-605	Table	540-1720	540-1720	AC	No	15 1/2x10 1/2x9 1/2	455	3-6K7, 2-6J5, 2-6P6, 6A8, 6J7, 6R7, 5T4, 6U5	
<i>* Also 40, 31, 25, and 19 meter bands.</i>									

Bag Your 1939 Profits

with
the

DOUBLE BARRELLED

Sentinel LINE!



Here's your ammunition!

FARM RADIO

- Battery Drain Slashed 60% with the lowest operating cost in history!
- RAD-O-FONE, the Private Telephone for the farm.
- Distinctive Cabinets.
- 1½ Volt, 6 Volt, 32 Volt, 6-110 Volt and Hi-Line Models.

CITY RADIO

- Amazingly New ELECTRIC Push-Button Tuning System.
- Smart Molded Bakelite Cabinets.
- RAD-O-FONE, the Private Telephone for the home.
- Novel Thermometer-Type Dials.

Sentinel Quality at Lowest Prices Ever Offered!



Sentinel

MAIL THIS COUPON

SENTINEL RADIO CORPORATION
Dept. R. R. 7 2222 Diversey Parkway, Chicago, U. S. A.
Please rush me complete details of 1939 Sentinel Line.
 Farm Radio City Radio

Name

Address

City.....

QUALITY RADIO SINCE 1920

Preview of New

WILCOX-GAY

Wilcox Gay Corp
Charlotte, Mich.

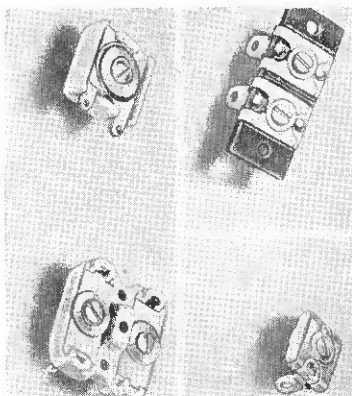


MODEL A-53—"The Thin Man". Any side but one is up, can stand, lie, or hang. Five tube, one band superhet, available in black, ivory, green, or walnut

MALLORY

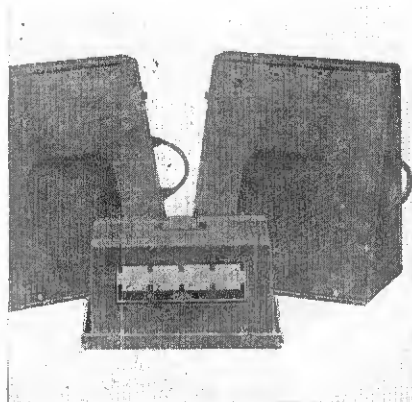
P. R. Mallory & Co., Inc.,
Indianapolis, Ind.

TRIMMER AND PADDING CONDENSERS—Designed to prevent drift or change with temperature or moisture, has finely threaded adjusting screws for accurate setting. Four general types BT and CT capacity range of 3-30 mmf., CTX for applications requiring greater capacity and CTD small size and high capacity range.



OPERADIO

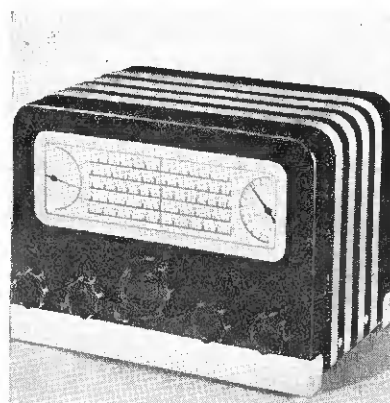
Operadio Mfg. Co.
St. Charles, Ill.



PORTABLE SOUND UNIT—Model 425 GG, with Remote Mixtrolor, features bass and treble tone compensators, bullet type microphone and extra heavy duty permanent magnet dynamic speakers

HOWARD

Howard Radio Co.
1731 Belmont Ave., Chicago, Ill.



RECEIVER—Model 430 offers "hams" a reasonably priced six tube receiver covering in four bands 540 kc. to 40 mc., ceramic coil forms, electrical band spreading, iron core i.f. transformers, beat frequency oscillator, built in dynamic speaker. Reasonably priced.

COOL-WAVE

Philco Radio and Television Corp.
Philadelphia, Pa.

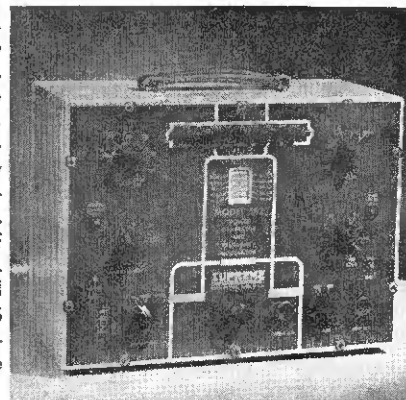


AIR CONDITIONING SYSTEM—Portable unit occupying a little over 4 square feet of floor space requires only one electrical connection and no water supply piping, fingertip controls deliver cooling equal to melting of $\frac{3}{4}$ of a ton of ice

SUPREME

Supreme Instruments Corp.
Greenwood, Miss.

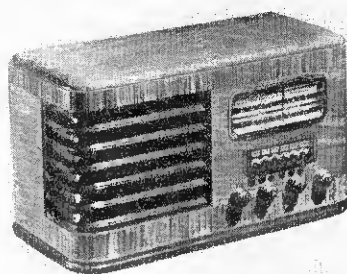
SIGNAL GENERATOR—Pushbutton tuning to most used R.F. and I.F. frequencies which have been laboratory tested. Easy adjustment to amplitude and frequency modulation, also controlled by push-buttons. Dial has over 8 feet of translucent scale length. Manually tuned band of frequencies from 85 kc to 15 mc on fundamentals and to above 60 mc on harmonics



Radio Merchandise

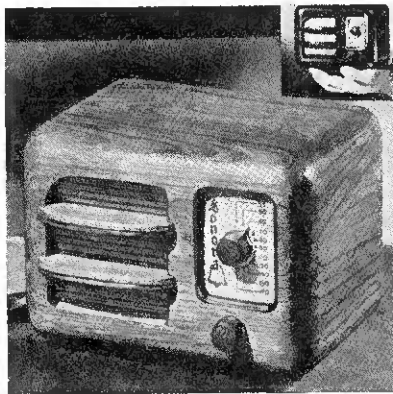
SONORA

Sonora Radio and Television Corp.
Merchandise Mart, Chicago, Ill.



Three band model, tuning continuously from 535 to 18100 kc. Power output of five watts developed by Sonora's new Dyna-boost circuit. Seven tube ac., six station pushbutton tuning, variable tone control, built-in wave trap, electro-dynamic speaker, dual and triple purpose tubes.

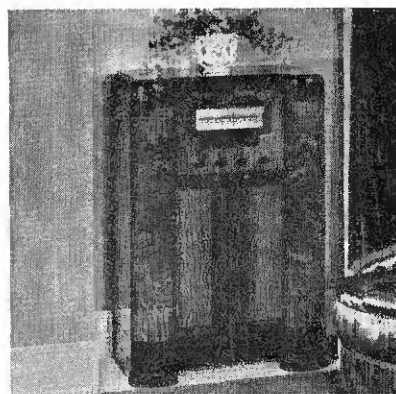
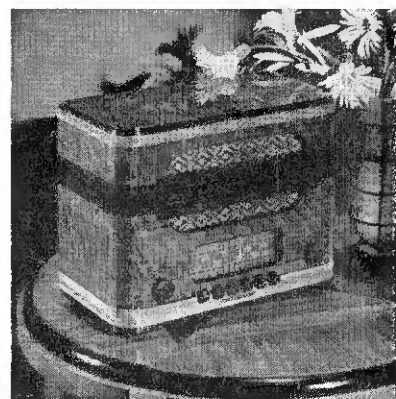
Ultra compact model with range from 1720 to 550 kc., 2 watts output, dynamic speaker, beam power tube, clock type illuminated dial. Available in a choice of colors.



WESTINGHOUSE

Westinghouse Radio Merchandising Hdqtrs.
150 Varick St., New York, N. Y.

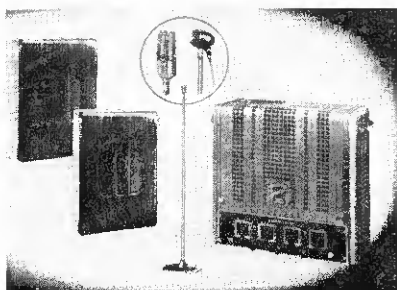
WR-258—Five tube ac. superhet offers five station pushbutton tuning with permeability tuned oscillator coils for each pushbutton, dynamic speaker, permeability tuned i.f. transformers, automatic volume control, illuminated slide rule dial.



WR-368 — Offers 12" dynamic speaker, automatic volume control, r.f. stage, phonograph terminal board, 9 station electric motor tuning, precision eye, permeability tuned, i.f. transformers, bass compensation, continuously variable tone control.

WEBSTER-CHICAGO

The Webster Co.
5622 Bloomingdale Ave., Chicago, Ill.

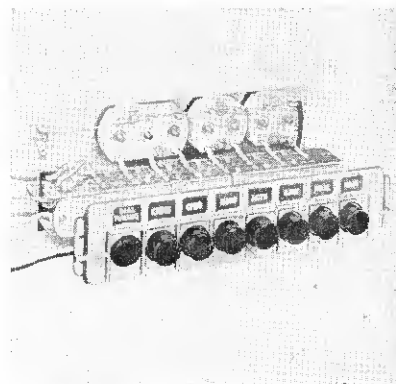


60 WATT P. A. SYSTEM—Model FR60 is particularly adaptable to out-of-door applications such as ball-parks, stadiums, amusement parks. Five stage, 14 tube amplifier incorporates high speed expander, multi-stage degeneration, remote control and dual tone compensation. Equipped with 4 input mixing circuits and variable output connections.

MEISSNER

Meissner Mfg. Co.
Mt. Carmel, Ill.

PUSH-BUTTON TUNER —Seven station automatic selection suitable for installation on any receiver. Release button returns set to manual tuning. Connections are provided for "Fully Automatic" or "Semi-Automatic" operation.





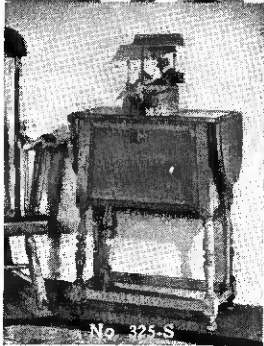
Mr. Radio Dealer, — HERE IS THE

**TABLE MODELS
IN THE POPULAR
HORIZONTAL STYLE**

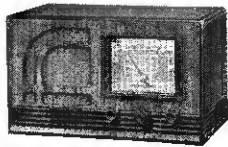
PRICED FROM... **\$39.95** F. O. B. FACTORY

**STANDARD
CONSOLES
FULL SIZE AND
PERFORMANCE**

PRICED FROM... **\$79.95** F. O. B. FACTORY



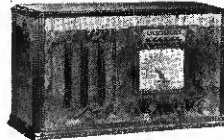
No. 325-S



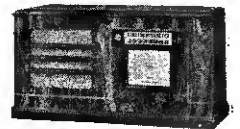
No. 320-H



No. 325-J



No. 337-H



No. 340-H

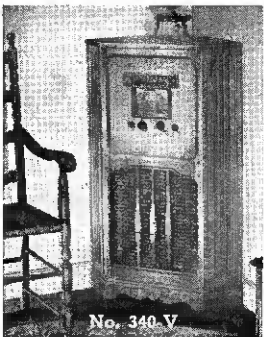


No. 325-N

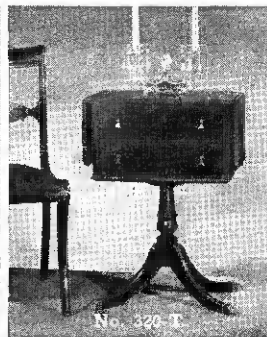
It *strengthens* Stromberg-Carlson's already dominant position in the price range above \$150—the real profit range of radio—with a line full of "selling-up" features. It *storms* the \$100 to \$150 big volume profit range with authentic Period Styles and Labyrinth Models from \$119.50*. It *invades* the volume range—under \$100—with Stromberg-Carlson Table Models from \$39.95* and Consoles from \$79.95*.

It *multiplies* sales possibilities in the highly profitable combination and chair-side market with popular priced Radio Phonographs and new style "Chairsides." It's a line that puts a dealer back into money making in his radio department. Mail coupon for information regarding franchise.

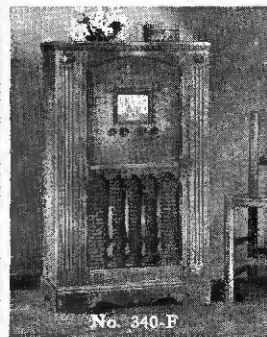
*F. O. B. Factory
STROMBERG-CARLSON TELEPHONE MFG. CO.
ROCHESTER, N. Y.



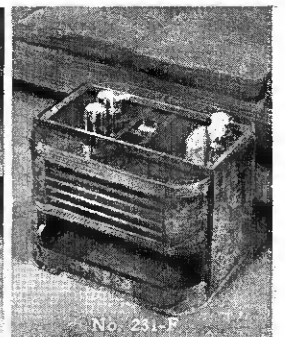
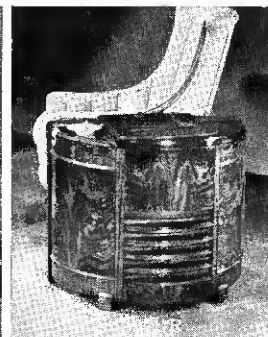
No. 340-V



No. 320-T



No. 340-F



No. 231-P

There Is Nothing Finer than a

Stromberg

LINE YOU ASKED FOR!

**LABYRINTH
MODELS**

**RADIO'S GREATEST
TONAL ADVANCE**

PRICED
FROM... **\$119.50**
F. O. B.
FACTORY

**AUTHENTIC
DESIGNS**

**GIVING STYLE
NEW TO RADIO**

PRICED FROM
\$99.50
F. O. B.
FACTORY

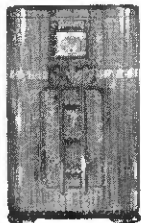
**EAR-LEVEL
PROJECTION**

**MADE POSSIBLE BY
THE EXCLUSIVE**

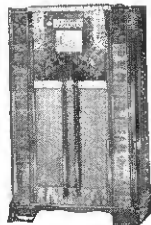
LABYRINTH



No. 335-L



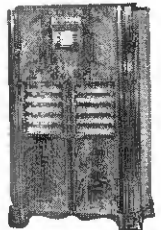
No. 337-L



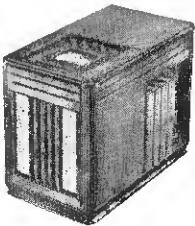
No. 340-M



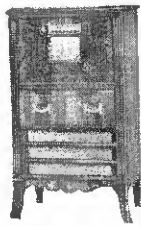
No. 345-M



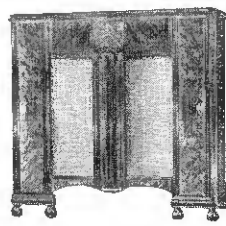
No. 350-M



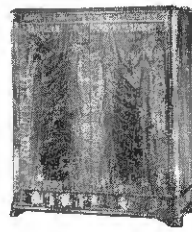
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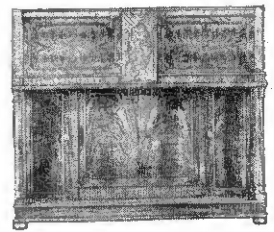
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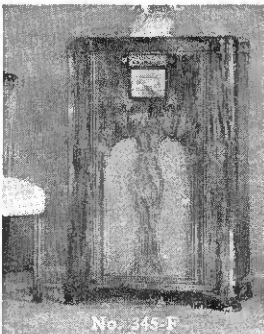
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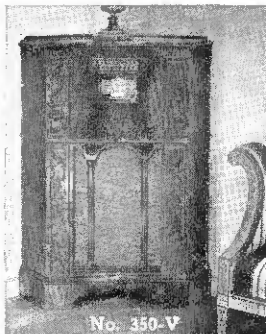
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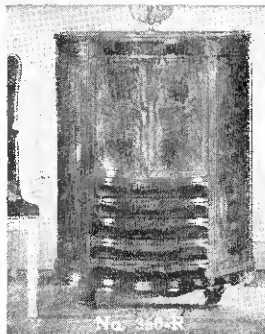
No. 260-P



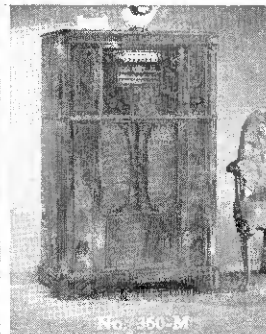
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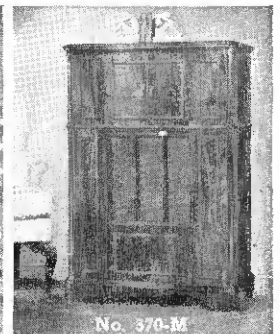
No. 350-V



No. 346-R



No. 350-M



No. 370-M

- Carlson

Stromberg-Carlson Telephone Mfg. Co., 174 Carlson Rd, Rochester, N. Y.
Send information on new line and franchise.

Name _____

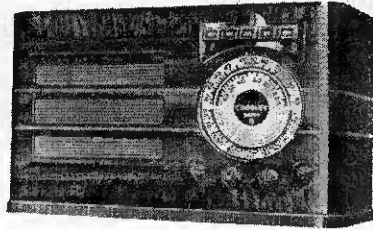
Address _____

PREVIEW OF NEW RADIO MERCHANDISE

CROSLEY

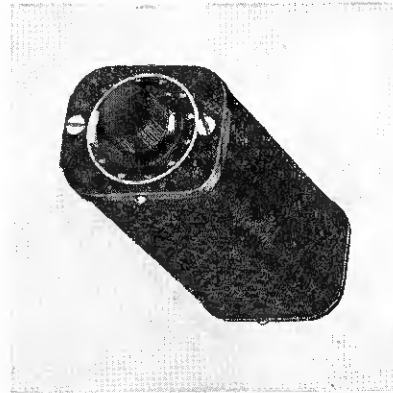
Crosley Radio Corporation
Cincinnati, Ohio

SUPER 8 MODEL— Eight-inch electro-dynamic speaker; mechanical push-button and knob tuning may be used interchangeably without throwing switch; continuous tuning range in three bands from 525 to 22,000 kc.; Mirro-Dial, inlaid, handrubbed walnut cabinet. List, \$39.95



OHMITE

Ohmite Mfg. Co.
4835 W. Flournoy St., Chicago, Ill.

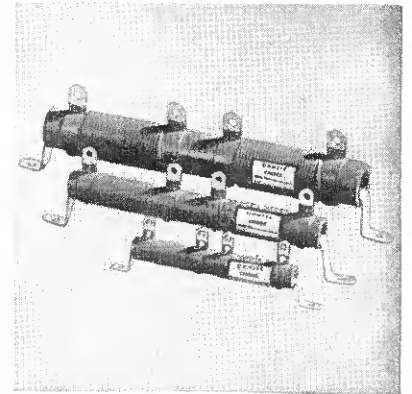


T PAD AND L PAD ATTENUATORS — Available in 25 and 50 watt ratings to match popular line impedances. Act as stepless control in high power sound circuits. Placed between the amplifier and the load, they control the volume of individual speakers or groups of speakers



With its two-position Bakelite case styled so that it can be used as a bookend, table model TRF receiver has four instant action push buttons with manual or knob tuning also; five inch electro-dynamic speaker; ac-dc. Brown moulded Bakelite lists at \$9.99; deluxe model with beam power output tube and old ivory Plascon case lists at \$12.99

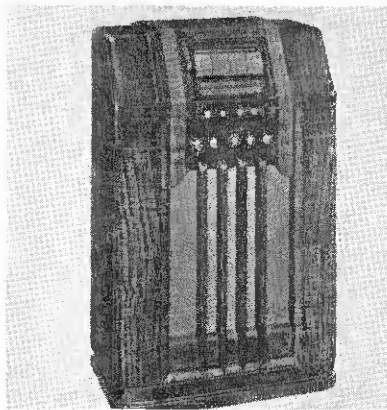
LINE CHOKES—Z-20, Z-21, Z-22 are designed to be placed in powerline leading to receiver, transmitter, or H. F. diathermy machine to prevent passage of high radio frequency interference



PILOT

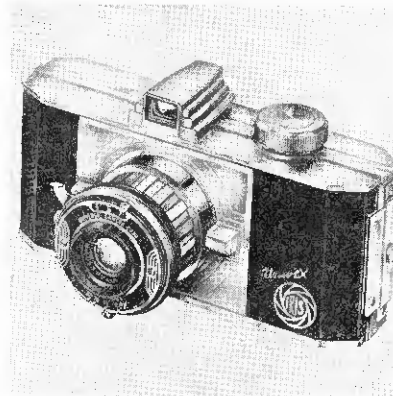
Pilot Radio Corp.
37-06 Thirty-sixth St., Long Island City, N. Y.

MODEL CH 590— Equipped with drumlike "Rotor Dial", which indicates frequency and elongates calibration lines to give band spread effect without breaking the continuity of the band. Piano tuning incorporates drift compensating devices



UNIVEX

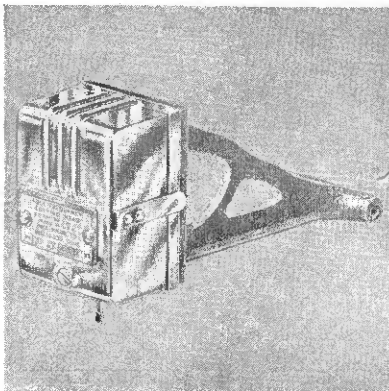
Universal Camera Corp.
32 W. 23rd St., New York, N. Y.



CANDID CAMERA— Univex Iris equipped with F:7.9 lens, 3 speed shutter, 4 stop Iris diaphragm. Case indestructible with piano hinged back, optical view finder. Spring pressure plate assures film travelling in exact focal plane. List \$5.95 and \$7.50

UNIVERSAL

Universal Microphone Co.
Inglewood, Calif.

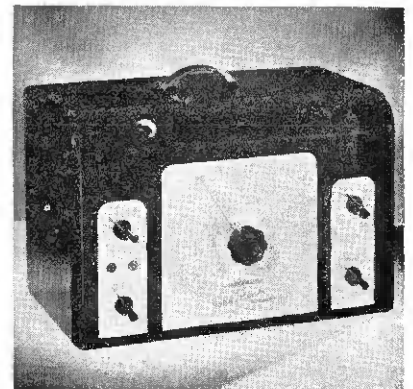


CUTTING HEAD — Records frequencies from 30 to 10,000 cycles and over. Precision metal construction, minimum of reflection back into the power stage, plus 14 db input level for normal modulation, low impedance frequency characteristic

BRIDGEMASTER

John Meck Instruments
Division of Electronic Design Corp.
164 N. May St., Chicago, Ill.

TESTER—Tests electrolytic, paper and mica condensers, resistors, volume controls and RF coils. Employs rated polarizing voltages in testing capacity and power factor measurements of electrolytic condensers; cathode-eye used for calibrated condenser leakage test, employs bridge method with direct reading scale for testing resistances

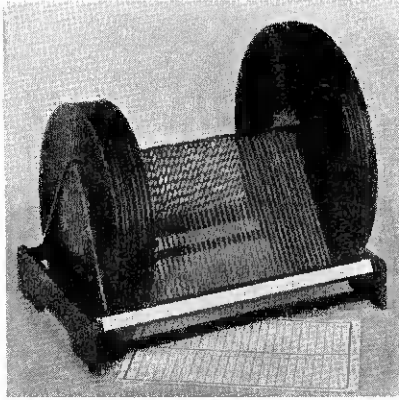


PREVIEW OF NEW RADIO MERCHANDISE

SCHLOSS

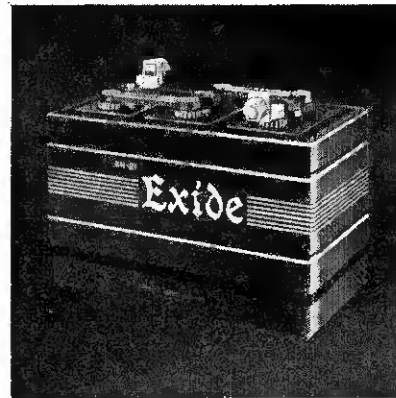
Schloss Bros.
801 E. 135th St., New York, N. Y.

RECORD HOLDER—
Fifty records protected
from scratching in a
rack 10 x 14½ in. In-
dex numbering system
assures immediate loca-
tion of the desired
record



EXIDE

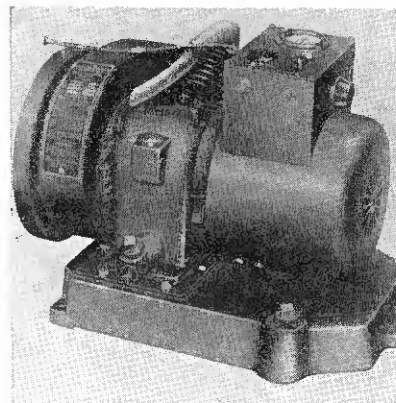
Electric Storage Battery Co.
Allegheny Av. and 19th St., Philadelphia, Pa.



STORAGE BATTERY—
Six volt battery of high
capacity, oversize plate
type, used for sound
trucks, public address
systems, police cars,
etc.

BLUE DIAMOND

Pioneer Gen-E-Motor Corp.
466 W. Superior St., Chicago, Ill.



GAS-ELECTRIC PLANT
Operates 12 to 16 hours
on one gallon of gaso-
line. 4 pole gener-
ator connected direct
to crankshaft of 4 cy-
cle, single cylinder, air-
cooled engine. Push
button starting

RCA VICTOR

RCA Mfg. Co.
Camden, N. J.

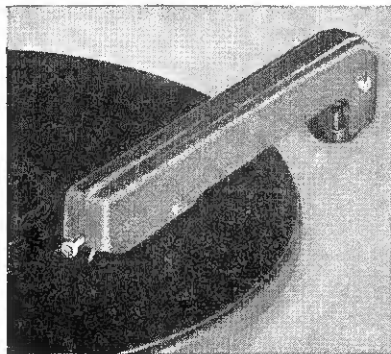
**DELUXE RECORD
PLAYER — R94-B**
equipped with light
weight crystal pickup,
true-tracking tone arm
and self-starting con-
stant speed motor with
automatic stop. Turn-
table accommodates
10 or 12 inch records.
High frequency re-
sponse and compen-
sated volume control
for bass response



SHURE

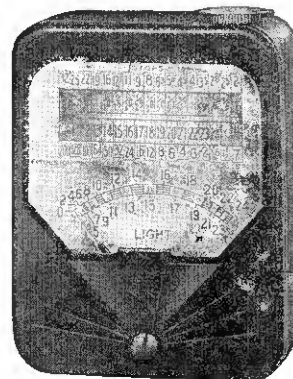
Shure Brothers
225 W. Huron St., Chicago, Ill.

PICKUP — "Economy"
crystal pickup model
94-A. Designed in
smallest service-worthy
dimensions for mount-
ing on small motor-
boards. Single-hole
mounting requires tight-
ening of only one nut.
Full range frequency
response, needle tilt
principle reduces track-
ing error. List \$6.50



WESTON

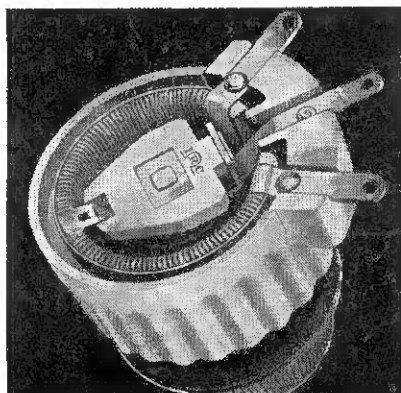
Weston Electrical Instrument Corp.
Newark, N. J.



EXPOSURE METER—
Model 850 is about the
size of a cigarette
package, for use with
still or cine cameras
and with all types of
film in natural or arti-
ficial light. Simple in
operation. List, \$15.50

IRC

International Resistance Co.
401 N. Broad St., Philadelphia, Pa.

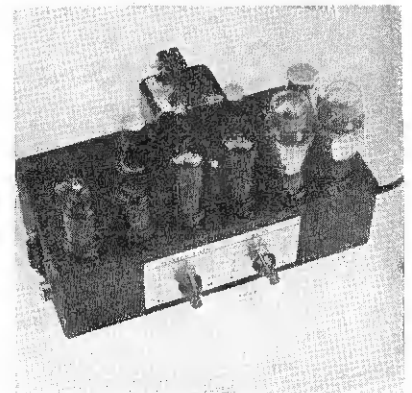


RHEOSTAT—IRC type
PR-25, heat dissipat-
ing, all metal construc-
tion and low tempera-
ture coefficient wire
allows operation at full
25 watts down to 25%
of full rotation with a
temperature rise of
about 160 degrees.
1½ in. diameter,
close calibration and
smooth resistance vari-
ations, large radius
contact made of a
special alloy

STANCOR HI-FI

Standard Transformer Corp.
1500 N. Halsted St., Chicago, Ill.

AMPLIFIER KIT—Ac-
dc 6 tube kit eliminates
resistance line cords
by use of two rectifiers.
Delivers approximately
4 watts with a db gain
of 90. Output imped-
ances of 4, 8, 15 and
500 ohms permit use of
several speakers and
use as a pre-amplifier.
Furnished knocked-
down less tubes, micro-
phone and speakers
and lists at \$17.95

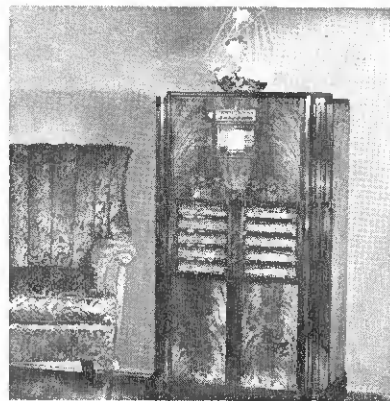
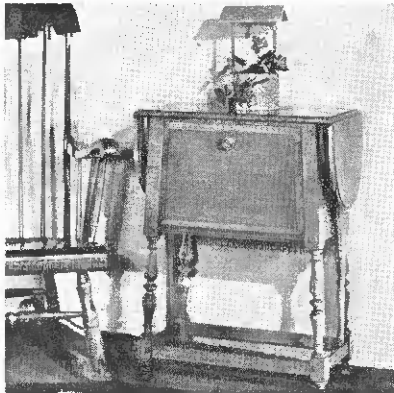


PREVIEW OF NEW RADIO MERCHANDISE

STROMBERG

Stromberg-Carlson Telephone Mfg. Co.
Rochester, N. Y.

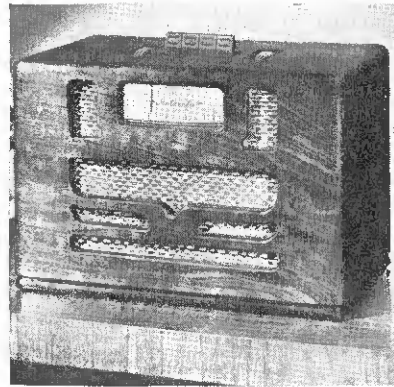
MODEL 325-S—Housed in maple cabinet of authentic early American design, 6 push button Electric Flash Tuning, automatic frequency stabilizer, class "A" amplification, automatic volume control, two tuning ranges



MODEL 350-M—Walnut cabinet. Three tuning ranges, 8 button tuning, acoustical labyrinth, ear-level projection, high fidelity, automatic tone compensation

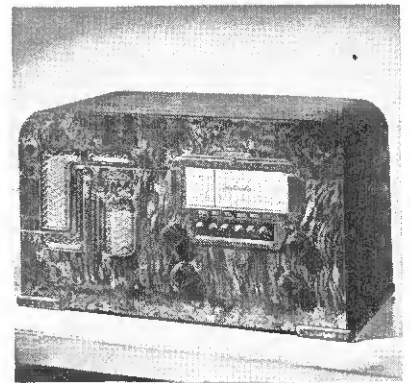
MOTOROLA

Galvin Mfg. Corp.
4545 W. Augusta Blvd., Chicago, Ill.



MODEL 59 T-4—"Top" tuning by means of disks sunk in the top of the solid walnut cabinet 5 tube ac, superhet, 4 pushbutton tuning, 5 in. electro dynamic speaker, tuning range 540-1720 kc.

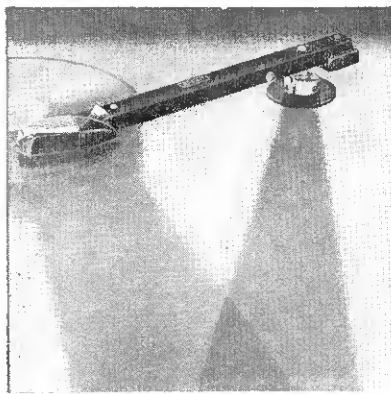
MODEL 59 T-5—Five tube ac. superhet, 6 station automatic tuning, housed in Glorwood cabinet. Tuning range from 540-1720 and 5650-18,000 kc. Illuminated straightline dial slanted at correct angle for easy tuning



AUDAK

Audak Co.
500 Fifth Ave., New York, N. Y.

PICKUP—Response is flat from 500 to 8,000 cycles and has gradually rising characteristic from 500 cycles down, reaching about 12 db at 50 cycles



EMERSON

Emerson Radio and Phonograph Corp.
111 Eighth Ave., New York, N. Y.



COMBINATION—Portable 5 tube ac-dc superhet radio-phonograph combination with tuning range of 540 to 1730 kc., 6 in. permanent magnet dynamic speaker and automatic volume control. Crystal pickup with self-starting motor and tangential tone arm

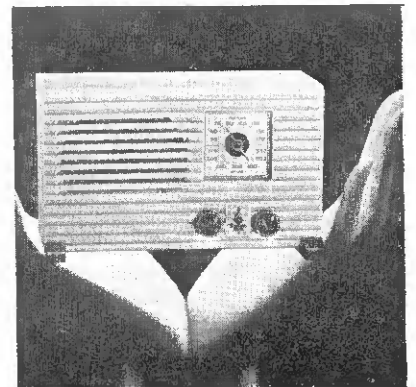
THIRD HAND

The Turner Co.
Cedar Rapids, Ia.



MICROPHONE HOLDER—Slip-on holder leaves hands free for driving, operation of transmitter, etc. Equipped with goose neck so that mike can be adjusted to any angle. Fits any standard microphone. List \$5.95

MODEL AX-211 "Little Miracle" 5 tube, ac-dc. superhet, 540 to 1730 kc. Two double duty tubes, miracle tone chamber, electro-dynamic speaker, automatic volume control, beam power tube, built-in antenna, walnut or ivory

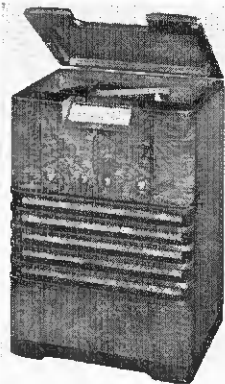


PREVUE OF NEW RADIO MERCHANDISE

ANDREA

Andrea Radio Corp.
48-20 48th Ave., Woodside, L. I.

COMBINATION Radio Phonograph or Console in which phono motor can easily be mounted. Walnut veneer cabinet designed for optimum cabinet acoustics. Climate sealed, Easy-View dial, 6 automatic tuning buttons, continuous tone control, ac. or dc., beam power output tube, 12 in. dynamic speaker.

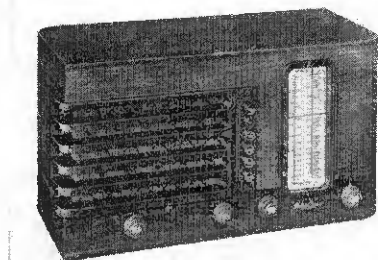


MAJESTIC

Majestic Radio and Television Co.
2600 W. 50th St., Chicago, Ill.



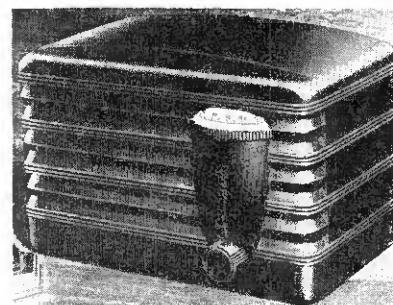
CHARLEY McCARTHY MODEL — Six tube superhet featuring an exact image of Charlie McCarthy on the front of the cabinet.



MODEL 14-E6 — Superhet, six station tuning buttons, 18,300 to 5,900 kc., 1720 to 520 kc., continuously variable tone control, anti-fluttering control on short-wave reception.

SENTINEL

Sentinel Radio Corp.
2222 Diversey Parkway, Chicago, Ill.

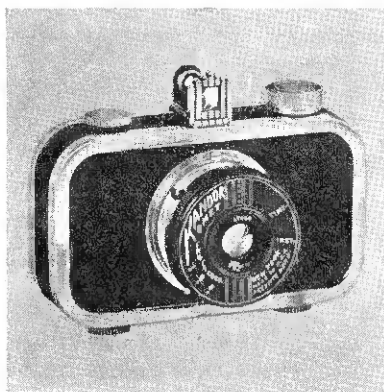


MODEL 137 UT — Compact model with cabinet in walnut or ivory bakelite, range 540 to 1730 kc., 3½ in. electro-dynamic speaker, two watts power output, shipping weight 4 pounds

KANDOR KOMET

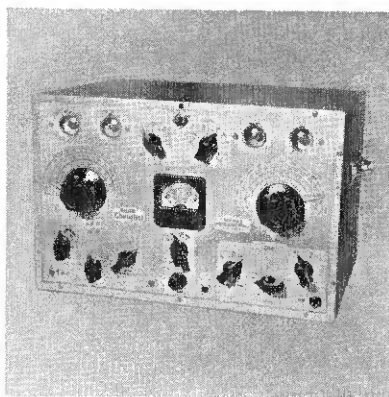
Irwin Corp.
27 W. 20th St., New York, N. Y.

CAMERA—3 diaphragm openings, Eyvar meniscus 50 mm. lens, fixed focus, telescopic eye level view finder, picture size 1⅝ in. by 1¼ in., weight 14 oz.



RIDER

Service Instruments, Inc.
404 Fourth Ave., New York, N. Y.



CHANALYST—A new test instrument which diagnoses receiver troubles with the set in operation. Traces a signal from the antenna through to loudspeaker by picking it out at any point, amplifying and detecting it. Indicates wattage drawn by set, also oscillator operating conditions; incorporates electronic voltmeter

FEDERAL

Federal Recorder Co.
1775 Broadway, New York, N. Y.

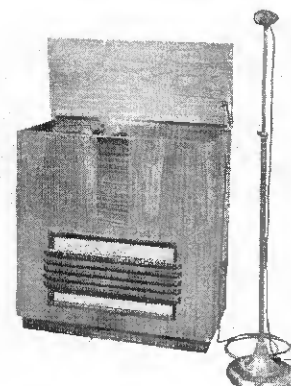


MODEL CT 12—Console, 12" turntable, 78 and 33 1/3 RPM, heavy duty constant speed synchronous motor. Includes crystal microphone and stand with licensed Radio Tuner for recording off the air. \$249.00

PRESTO

Presto Recording Corp.
139 W. 19th St., New York, N. Y.

CONSOLE RECORDING PHONOGRAPH — Combination sound recorder, phonograph and public address system with 12" recording turntable, lightweight magnetic pickup and four stage amplifier having gain of 115 db. 12" high fidelity loudspeaker

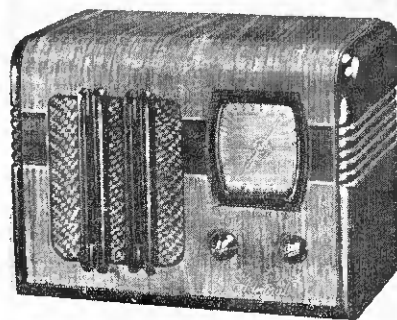
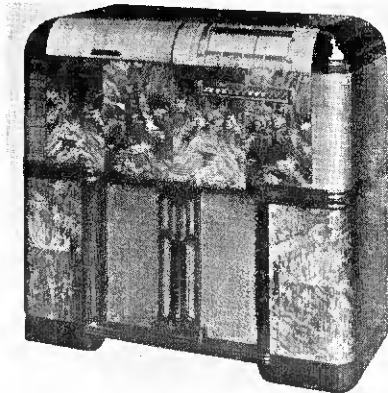


PREVUE OF NEW RADIO MERCHANDISE

ADMIRAL

Continental Radio and Tel. Corp.
3900 Courtland St., Chicago, Ill.

MODEL 144-16S — Phono combination with 16 tubes. Completely ac.; three bands; 13 button electric tuning; slide rule dial; 25 watts output; 12 in. electrodynamic speaker; play 10 or 12 in. records automatically.



MODEL 129-5F — Five tube ac. superhet in handsome roll-top walnut cabinet. Tuning range 535 to 1735 kc. Pillow shaped airplane dial and 5 in. electrodynamic speaker.

SIMMONS

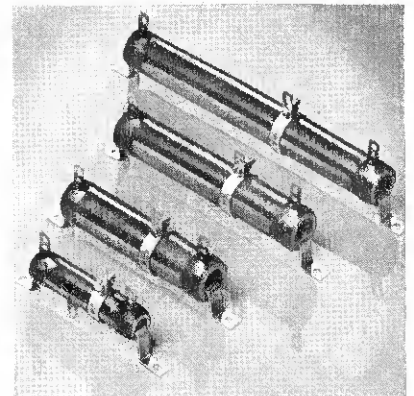
Simmons Mfg. Co.
122 W. North Ave., Chicago, Ill.



ELECTRIC DRY SHAV-ER — Double shaving edge, self sharpening, universal 110 volt ac-dc motor, Bakelite case. Supplied ready to be assembled. List \$2.98

UTAH

Utah Radio Products Co.
812 Orleans St., Chicago, Ill.

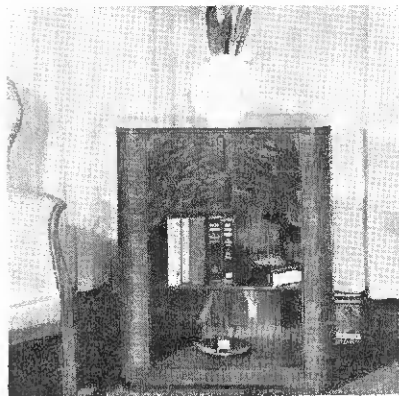


RESISTORS — Double coated vitreous enameled resistors, adjustable in sizes from 10 to 200 watts dissipation. Standard resistance tolerance of plus or minus 5 per cent

BRUNSWICK

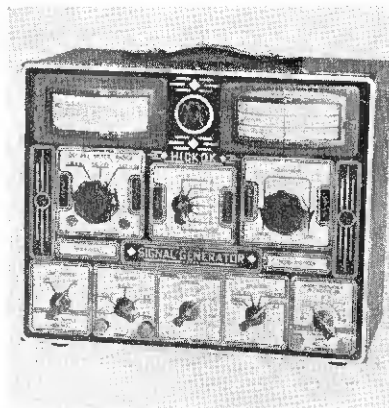
Mersman Bros. Corp.
206 Lexington Ave., New York, N. Y.

MODERN — Model 1689. Six tube ac. Brunswick superhet, 8 in. electro dynamic speaker, 6 push buttons automatic tuning-mechanical type, Brunswick continuous tone control, automatic volume control, 110-125 volts, 50-60 cycles



HICKOK

Hickok Electrical Instrument Co.
Cleveland, Ohio



SIGNAL GENERATORS—Models 17 and 18 provide output voltages from 1 microvolt to over 100,000 microvolts on all ranges from 100 kc. to 30 mc. Provision for frequency modulated r.f. output, amplitude r.f. output, unmodulated r.f. output, 400 cycle audio output. Model 18, as illustrated, has self-contained decibel meter.

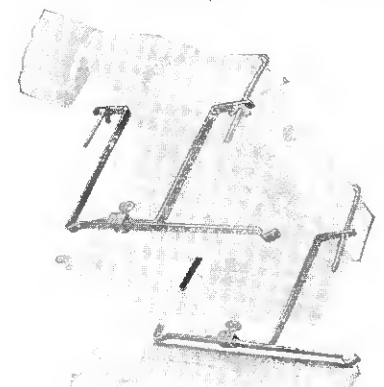
GENERAL

General Cement Mfg. Co.
Rockford, Ill.



QUEEN ANNE—Model 8109, Authentic period design, 8 tube ac. superhet, 10" electrodynamic speaker, 6 pushbutton automatic tuning, power output 9 watts, electric tuning indicator, automatic volume control, four position band switch

CHASSIS GUARDS — Assures safe handling of radio chassis in any position during a service job. Quickly adjustable to various sizes of chassis.



RCA Research is the Basis of Radio in the Home!



Today's magnificent reception has been developed by years of patient work in RCA Laboratories

Most of us can recall the early crystal sets, when the marvel of hearing music by wireless first startled the world. Poor quality of reception was offset by the wonder of the achievement.

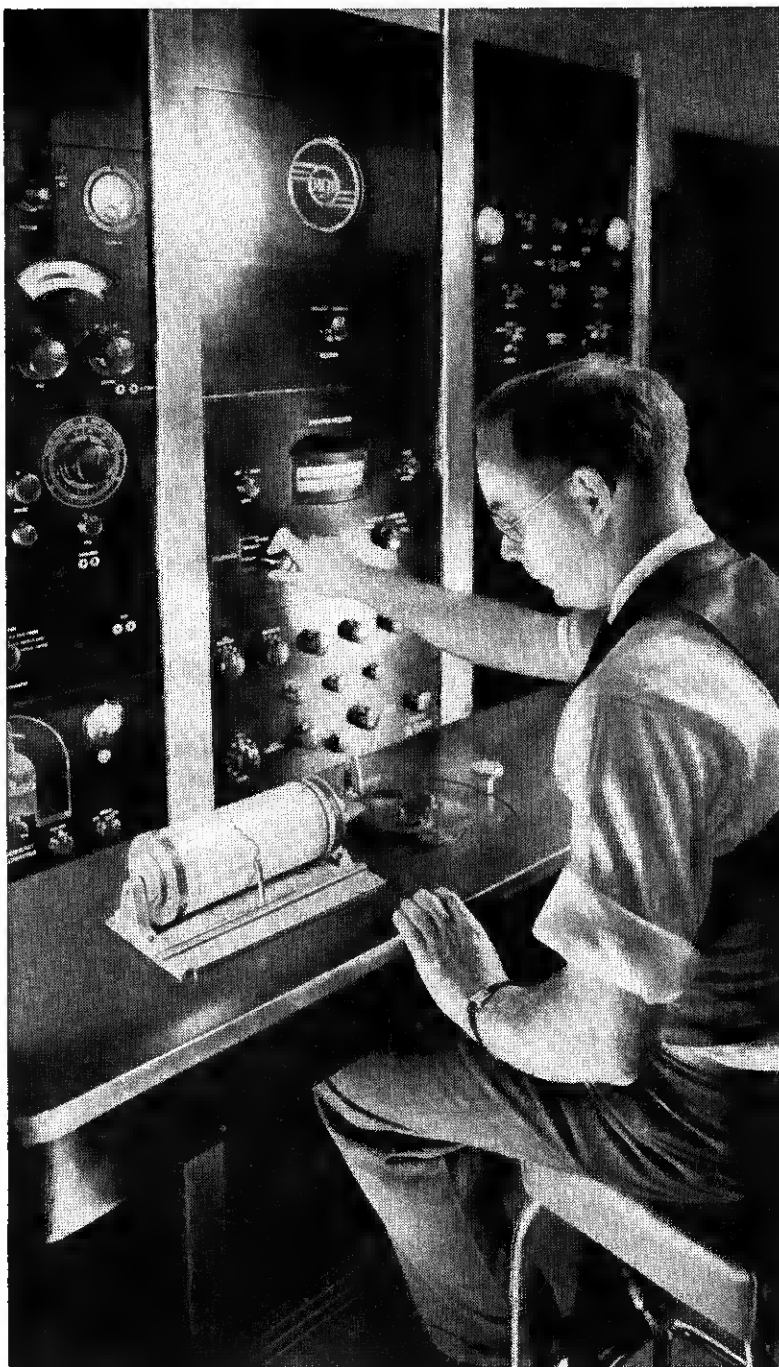
A year before these crude receivers came into public use RCA had already established a laboratory for developing radio reception for the home. From this humble beginning great things have come. Today, hundreds of trained RCA engineers devote their time to this work. Research in RCA laboratories has produced, or inspired, virtually all important advances in the quality of home receiving instruments.

An all-inclusive business

Similarly, swift, direct radio communication with 43 foreign nations, and with ships at sea, is a result of RCA research. Other results include revolutionary improvements in the recording and reproduction of sound on records and motion picture films; indispensable new aids to police and aviation, to science and industry. And, thanks to years of unremitting study by RCA engineers, the new arts of television and facsimile now give promise of rendering important public services.

The Radio Corporation of America has invested millions of dollars in research to make radio—and the by-products of radio—more efficient and more economical, and to give to the United States, in every phase of radio development, undisputed world leadership.

Scene in RCA laboratory as engineer operates control board of device for recording tone quality of radio receiving instruments. This is but one of the many intricate pieces of equipment used in developing the fine quality of RCA Victor radios.



Listen to the Magic Key of RCA, presented every Sunday, 2 to 3 p. m., E. D. S. T., over NBC Blue Network



Radio Corporation of America

RADIO CITY, N. Y.

RCA MANUFACTURING CO., INC.

RCA INSTITUTES, INC.

RCA COMMUNICATIONS, INC.

RADIOMARINE CORPORATION OF AMERICA

NATIONAL BROADCASTING COMPANY

NEWS

Wells Heads RMA

Succeeds Les Muter, completing four consecutive presidential terms and now treasurer

CHICAGO—To A. S. (Al) Wells, president of Wells-Gardner & Company and the first set maker to head the association in five years, went the presidency of the Radio Manufacturers Association at its 14th annual convention, held here last month concurrently with the National Radio Parts Trade Show. Identified with the industry since 1924, Wells succeeds Leslie F. Muter, who completed four consecutive presidential terms and now becomes RMA's treasurer.

Elected vice-president of the RMA and chairman of its set division, succeeding Arthur T. Murray, was James S. Knowlson. Re-elected vice-president and chairman of the tube division was B. G. Erskine. Arthur Moss continued as vice-president and chairman of the parts and accessory division. Succeeding Peter L. Jensen, J. McW. Stone accepted the post of vice-president and chairman of the amplifier and sound division. Continuing as executive vice-president and secretary was Bond Geddes; as general counsel, John W. Van Allen.

Five new directors were elected to the



RMA'S NEW PILOT—A. S. Wells, now president of the Radio Manufacturers Association

RMA board: Glenn W. Thompson, Harry G. Sparks, Octave Blake, James C. Daley and J. McW. Stone. Directors re-elected included: Ernest Alschuler, Jerome J. Kahn, Philip C. Lenz, A. S. Wells, W. R. G. Baker, Roy Burlew, A. H. Gardner, Arthur Moss, H. E. Osmun and George A. Scoville.

Meissner-Electronic Lab. Deal

Mt. Carmel firm buys Indianapolis factory's auto radio replacement vibrator division

MT. CARMEL, ILL.—The Meissner Manufacturing Company of this city has just purchased the auto radio replacement vibrator division of Electronic Laboratories, Inc., Indianapolis, will shortly move machinery and some of this division's personnel to Mt. Carmel.

Announcing the move, vice president G. V. Rockey of Meissner made the following statement: "We, at Meissner, have for a long period experimented with vibrators and ways for improvement. After making an extensive survey of the vibrator field, we decided to purchase the vibrator division of Electronic Laboratories, which we believe to be the best in the industry, and add the many new developments which Meissner engineers have made possible."

Interviewed at Indianapolis, Norman R. Kevers, president of Electronic Laboratories, Inc., confirmed the division's purchase, stated that his firm will in future concentrate on the production and sale of heavy duty vibrators, converters and power supplies. The company will soon announce a vibrator type converter rated at 2 kilowatts output.



RIDE WITH "REPRESENTATIVES"—Off the parts show special at Harmon (where the Central switches to steam) stepped these prominent New York representatives, manufacturers, distributors long enough to have their picture taken. Charged with the responsibility of keeping everybody happy was Perry Saffler (front row, hands in fashion-plate pockets)

Jobbers Hit Cheap Parts

NRPDA opposes "price leaders" inferior in quality to standards, says entire industry suffers

CHICAGO—Meeting concurrently with the RSA, RMA and Sales Manager's Club during the Parts Show here last month, the National Radio Parts Distributors Association went on record as opposing the introduction of replacement parts whose sole bid for popularity is based upon price alone, in competition with standard products of higher quality at a fair list. Continuance of this recent trend among manufacturers, according to Association officials who were careful to state that they did not mean by this move to limit legitimate technical developments, would cut down the total volume



LEADS JOBBERS—Leslie C. Rucker of Washington, D. C., new president of the NRPDA

of business available in a limited market.

To the Radio Servicemen of America, NRPDA extended a promise of cooperation, received in return assurances that the RSA and its members would work with the distributor's association on all projects of general benefit to the trade.

NRPDA officers elected for the 1938-1939 season include: Leslie C. Rucker of Washington, president; Emmet Tydings of Pittsburgh, vice-president; George D. Barbey of Reading, secretary; Blakely E. Cross of Gloversville, treasurer. Directors elected were: Arthur C. Stallman of Ithaca, William A. Shuler of New Orleans, Walter Hollenbeck of Altoona, Joseph A. DeMambo of Boston and Ralph C. James of Seattle.

New York May Get Noise Law

Measure designed to reduce radio interference introduced in City Council in behalf of NAPRI

NEW YORK—From Frank L. Carter, president of the National Association for the Prevention of Radio Interference, East Rockaway, Long Island, comes word that on June 21 Councilman Keegan introduced in the New York City Council a measure designed to reduce interference with radio reception.

Unopposed, the measure, upon which action is pending during a two month's summer recess, contains the following provisions:

(1) Makes it unlawful to operate in New York City any device producing unnecessary or reasonably preventable interference with receivers or transmitters. Transmitting stations licensed by the government are exempt.

(2) Provides for checkup of reported interference by the Police Department, recommendation for solution where cost of quieting noise source does not exceed \$15.

(3) Provides a penalty up to \$50 for

violations preventable as noted in item 2.

In a memorandum supporting the proposed law, Councilman Keegan noted that it was submitted in behalf of the National Association for Prevention of Radio Interference, a voluntary organization composed of individuals all over the country and representatives of broadcasting companies, membership entailing no financial responsibility and no dues of any kind.

Exports Mount

1937 shipments of sets and tubes up, final figures show

WASHINGTON—Exports of receiving sets in 1937 totaled \$16,987,831 at manufacturers declared valuation, a gain of \$97,087 over the previous year, according to official, final figures just released by the Department of Commerce. Number of units exported was 647,834 as compared with 670,800 in 1936. Average unit price, \$26.22, represented a 4.13 increase.

Receiving tubes exported in 1937 numbered 9,757,845 units; were valued at \$4,100,668.

Part-Time Competition

MILWAUKEE—Survey of this territory by the local servicemen's union reveals the fact that while there are somewhere between 300 and 500 full time men in the area at least 3,200 are repairing radios. Most of the part-timers, *Radio Retailing* is informed, are men employed in factories. Acting through the trade



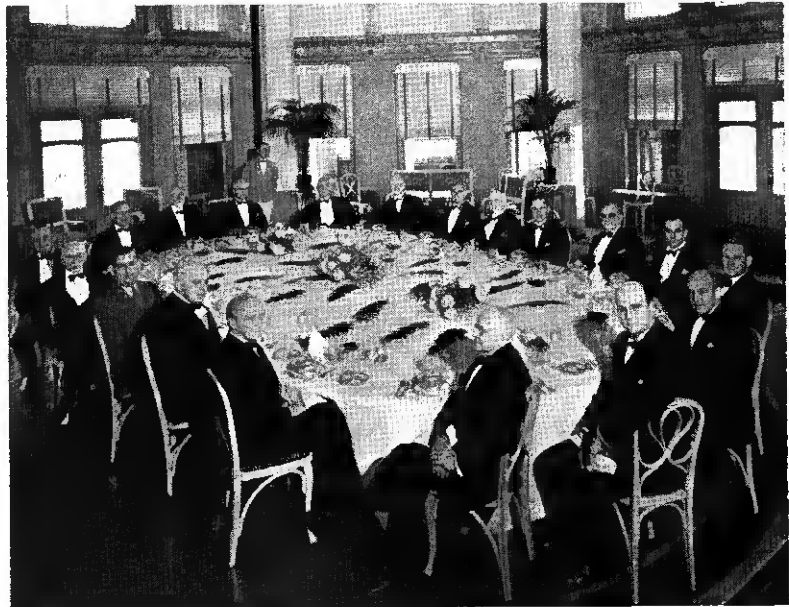
PAGE JOE E. BROWN—From Irving Miller of Atlanta's Wholesale Radio branch comes this shot of E. L. Hollingsworth, IRC representative, en-route to the Parts Show. Scrawled on the back were the words: "Snapped just after he closed his mouth!"

unions to which these men belong, the servicemen's union is attempting to eliminate such competition.

Servicemen contracts have been in effect here since April 15. While it is known that many servicemen employed by retailers and distributors are members the union has not divulged its total roster.

New Macy Buyer

NEW YORK—Newly appointed radio buyer for Macy's, mammoth department store here, is David Davis, replacing buyer Jordan, who has resigned.



McGRAW MEDALISTS' MEAL—To James H. McGraw, medalists under the James H. McGraw Award for Electrical Men tendered this testimonial dinner June 6 at Atlantic City's Hotel Traymore. Clockwise from the head of the table at the left: James H. McGraw, J. Robert Crouse, George E. Cullinan, J. E. North, H. P. Liversidge, W. W. Freeman, Howard Ehrlich, C. E. Mitchel, W. R. E. Moore, W. J. Drury, G. E. Whitwell, James H. McGraw, Jr., S. L. Nicholson, C. L. Collens, O. Fred. Rost, G. W. Patterson, G. M. Sanborn, Louis Kalischer and C. E. Swartzbaugh

RSA Elects Officers

Robinson president. By-laws revised, dues settled at annual convention. Six new chapters.

CHICAGO—During its three-day convention here last month the Radio Servicemen of America, Inc., completed revision of by-laws to include changes and suggestions of chapters and individual members, chose an official emblem for RSA, tentatively accepted the slogan: "Reliable Service Assured," decided that national dues should be \$3 per year effective January 1, 1939, plus a \$1 admission fee for new members, selected officers.

At the RSA helm for the next term will be: T. P. Robinson of Dallas, president; A. J. Theriault of Cleveland, vice-president; Donald H. Stover of Freeport, Ill., secretary, and Lee Taylor of Chicago, treasurer. All but Theriault served in the same capacities last term.

Speaking at technical meetings during the convention were: M. P. Wilder of National Union, Henry Hutchins, Walter Jones of Hygrade Sylvania.

New chapters completing affiliation with the RSA were reported as follows: Alton, Illinois; Quincy, Illinois; Fremont, Ohio; Steubenville, Ohio; Ogden, Utah and Long Island, New York. Considering affiliation were organizations in Danville, Illinois; Cincinnati, Indianapolis and Tulsa.

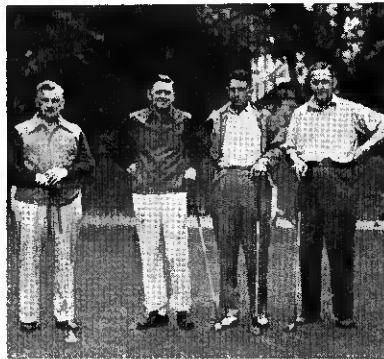
Boston Chapter reported election of A. C. W. Saunders as director of district twenty, with Ingvar Paulsen, alternate director, temporarily serving in his stead. New Bedford Chapter reported holding of a special meeting to include the new office of treasurer, with Preston Gifford elected to the newly created post.

Air King Moves

NEW YORK—Factory and general offices of the Air King Products Company, Inc., moved June 20 to 1523-29 63 Street, Brooklyn.



MEN WITH WIVES—Tom White (left) of Jensen and John Erwood of Webster-Chicago meet Mrs. White and Mrs. Erwood, relax after the Parts Show. Cameraman: Henry Hutchins



FAR CRY FROM CAMDEN—(Top) Tom Joyce (leaning on club) admires a good shot during an interlude in RCA Victor's distributor convention at French Lick. Hal Maug, west coast district sales rep, couldn't resist "watching the birdie." (Lower photo) Left to right: Robert Shannon, RCA vice president and general manager, Frank R. Deakins, vice president in charge of engineering product sales, J. A. "Shine" Milling, manager of accessory and tester sales, Paul C. Richardson, manager of radio and phonograph sales

Sharpen Those Pencils

Weston competition, with complete bench at stake, has many takers

NEWARK—"How modern test equipment helped me to solve a difficult radio servicing problem" . . . write a practical and interesting letter under this headline and you may be in line for an award. Weston Electrical Instrument Corporation, celebrating its 50th Anniversary, has 25 of them valued at over \$1,000, asks that entries be submitted on special blanks available from jobbers, company representatives or the factory itself.

Opened at the Parts Show last month, the competition closes September 1, awards to be announced October 1. First award is a complete test bench, including a high-sensitivity analyzer, socket selector set, tube checker, oscillator, set of Rider's Manuals, service tools and replacement tubes.

Sound Potentialities Underestimated

Rothenberger of RCA says Pullman exhibit tour was an eye-opener

CAMDEN—Sound amplification has emerged as a major business which can be made profitable in direct proportion to the effort which dealers put into it, according to W. L. Rothenberger, manager of the RCA Victor Commercial Sound Section.

Rothenberger recently completed a 7,000 mile tour of the country with a \$50,000 sound products exhibit in a special Pullman car. Reviewing the tour in an interview, he said: "The interest in our exhibit convinced me that the potentialities of this business are even greater than we realized. Dealers, architects, school and civic officials, clergymen, institutional and industrial managers who visited the exhibit expressed amazement at the technical and design advances embodied in the equipment on display. From the 20,000 persons who had an opportunity to inspect the equipment, hundreds of live prospects were turned up. The car publicity served to accelerate the sound business in every territory we covered."

New Wincharger Plan

SIoux CITY, IOWA—W. W. Watts, vice president and general manager, Wincharger Corporation, this city, announces a special promotional plan, which has been worked out with many radio receiver set manufacturers and their distributors. This plan makes it possible for dealers to purchase 6-volt Winchargers at special pre-season discounts.

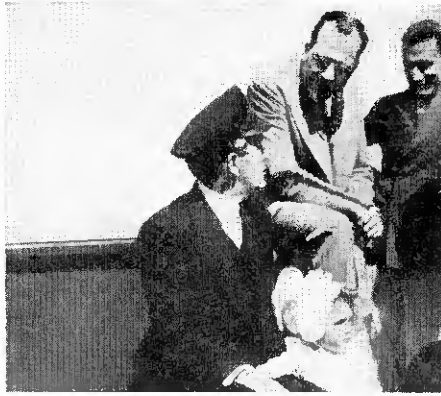
In accordance with the company's policy of informing the trade with latest facts concerning REA developments, Mr. Watts also announces a new data book on this subject. This book gives up-to-date information about REA developments, economies in operating Wincharger equipment and points out the advantages of 6-volt radios.



EVIDENCE—"Grandpa" is George Russell, Sentinel sales manager . . . and loves it

ACTION CAMERA!

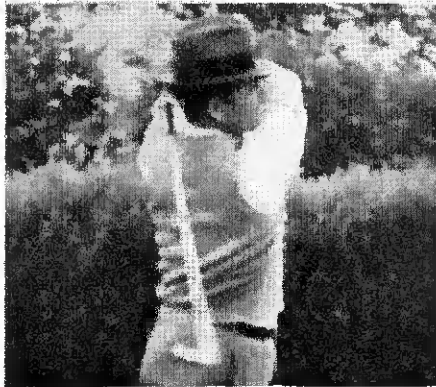
**Calumet Golfers
Parts and I.R.E. Showmen
Conventioners
Mizpah Yachtsmen**



Zenith's Commander McDonald and daughter chat with Philco's Howland and Raytheon's Schultz



Enjoying the "Mizpah" party: Tracey and Thompson lean out over the "Mizpah's" rail . . . for the breeze



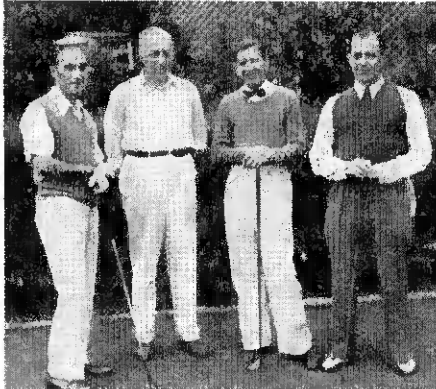
At the RMA's Calumet Golf Club interlude Coffin of Hytron copped the Billings-Belmont trophy with a beautiful 73



Pfohl of RCA, Kahn of Stancor, Alschuler of Sentinel succumbed to the editor's candid camera



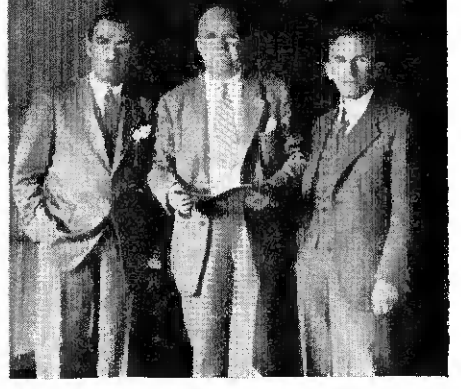
RCA's Anderson, Muter of Muter, Billings of Belmont, Tewksbury of Anaconda battled it out at Calumet



Quam-Nichols quartet: Schecter, Quam, Picard and Breuer keep a good score in the family



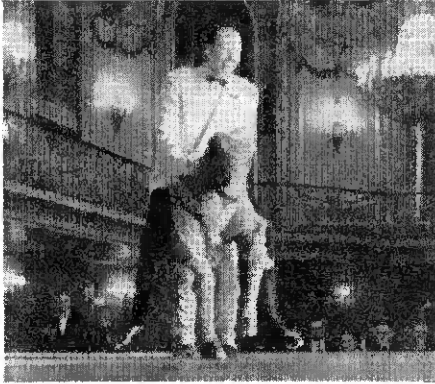
Stromberg-Carlson's McCanne and Gross emerge from a company convention session, run into RR's cameraman



Distributor Locheim, Spencer and Manson of Stromberg-Carlson step out for a breath of air



Brothers Max and Ben Abrams show the extensive Emerson line to convening distributors



Horseplay (or should it be mule-play?) lightens up Utah's shindig, Hume getting the "works" in this instance



Snapped at his offices over at Continental Radio & Television during the RMA shindig: Admiral's Siragusa



At the Blackstone, Sonora's *Gerl* and *Freund* spotlight their smallest 5-tube super



Zender of *Lenz* was all over both the Parts Show and I.R.E. exhibits like a blanket



On deck in person to "emote" about new Audak pickups: *Weil*, who has several new products up his sleeve



Drinking one of the liberally dispensed Ken Rad mint juleps: *Perlitz*, at the Blackstone



Hasemeier of *Wilcox-Gay*, at the Blackstone, enthusiastic about new sets and a photographic accessory



Fairchild's Kettering went into detail for all comers concerning his new recording unit at the I.R.E.



Big enough to fill any lens: *King* of *Operadio*, in company rooms



From way down south drove *Supreme's Dulweber* to the Chicago shindigs



Aladdin's McGinley spent an animated hour with three big buyers from abroad



Bell of *Bell Sound* scarcely left his parts show booth to eat, stayed right at it



In *Webster Electric's* rooms at the Stevens during the parts show: *Loeb* of *Racine*



Hard at work in the *Radiart* booth was *Wildberg*, snapped in the midst of a salestalk



ANDREA'S FOR GATTI—Commander Attilio Gatti, sailing with his wife on the Normandie for an 18-month exploration of the Belgian Congo, took along allwave receivers made by Frank A. D. Andrea (left) to keep in touch with the world

according to the company's vice president, Sayre M. Ramsdell, meant excellent replacement market possibilities. Ramsdell further stated: "The farmer is in a more advantageous economic position, too, than most of the urban population of the country. Fully 58 per cent of all farms are free of mortgage indebtedness and 18 per cent is the ratio of farm debt to value."

Programs For The Farmer

NEW YORK—Three new programs for farmers take the air this month over Columbia's network. "RFD #1", beginning July 4 and to be heard Monday through Friday of each week, brings Irene Beasley

to the mike with fashion and beauty notes, recipes and homemaking hints interspersed with music. On July 17 and each Sunday thereafter from 4 to 4:30 p.m. "The Farmer Takes the Mike" opens a series for and by dirt farmers, cattlemen and fruit growers. And on July 19 the curtain rises on "Four Corners Theatre", to be presented each Tuesday at eight.

Detrola Winners

DETROIT—Winners of Detrola's window display competition: First, Goldman's of Kansas City. Second, Mace's, also of Kansas City.

Brunswick Line Announced

Mersman furniture forms radio division, brings out period designs to be sold direct

CELINA, O.—The Mersman Brothers Corporation of this city, one of the nation's finest furniture makers, has just formed a Brunswick Radio Division, and will shortly place on the market a line of Brunswick radios and phonograph combinations ranging in price from \$49.50 to \$149.50. Employing superheterodyne chassis licensed by both RCA and Hazeltine, this firm will specialize in period furniture, including an early American, a French half-round commode, a French Provincial, a Duncan Phyfe, a Queen Anne, a Sheraton and a modern cabinet.

Executive sales headquarters have been established in the New York Furniture Exchange, 206 Lexington Avenue, New York City, and a complete display is to be maintained here and also during the markets at Chicago's Furniture Mart, 666 Lake Shore Drive. According to H. L. Weisburgh, who is in charge of the Division's sales, the radios will be sold direct to department stores, furniture stores and radio dealers. List prices are to be registered wherever Fair Trade Laws are in existence.

Philco Surveys Farms

Finds that nearly a third of all sets in use are six or more years old

PHILADELPHIA—The farmer likes radio, owns one and yet offers the biggest single market for radio, judging from the results of a nation-wide survey made for Philco Radio & Television Corporation among more than 200,000 farm families in electrified areas.

It was found that while 93.7 per cent of these homes had one or more radios 31.8 per cent of the sets were over six years old, 25.1 per cent were three, four or five years old, 31 per cent one or two years old. Only 12.1 per cent of the sets in use were purchased within the last year. The total proportion of radios over three years old amounted to 56.9 per cent.

This high proportion of old receivers,

Why? 100% SALES INCREASE

each year

HERE ARE
the
REASONS

1. The basic "slip the wind" patented principle is improved consistently.
2. Parris-Dunn 6-volt chargers are quality built—durable—give perfect customer satisfaction.
3. Custom built for and approved by leading radio manufacturers.
4. Radio trade name advertises dealer and radio.
5. Parris-Dunn was first to make chargers a profit item.

DEALER MARGIN GREATER
AGAIN THIS YEAR

WHY SALES OF NEW '39 MODELS ARE ALREADY SHOWING 100% INCREASE

- All steel construction with four legged tower—Lighter—Stronger!
- No unnecessary weights on light Hy-Torque balanced propeller. Starts in low winds. Produces more watt hours.
- New discovery! Vibrationless back of center pivoting point. No vibration! No broken propellers!
- More powerful, air-cooled third brush control generator. Guaranteed for one year.
- Double action shock absorber governor spring, gives smooth power control. No flutter!
- Full floating self adjusting all metal collector ring. New design. Guaranteed for life of unit.

1936

1937

1938

1939

Partly Estimated

PARRIS-DUNN CORPORATION

20 YEARS OF SUCCESSFUL MANUFACTURING EXPERIENCE

CLARINDA • IOWA • U.S.A.

Cups, Trophies, Placques

Philco dispenses them with lavish hand to deserving division managers, district reps, distributors

PHILADELPHIA—Awarded Philco's "President's Cup" as company division sales leader for the full year ending with the firm's annual convention was Jack Leahy, manager of the Central Division. Placing second in the race for this top-ranking Philco trophy was Clifford S. Bettinger, manager of the Pacific Division, who copped the Sales Manager's Cup for the first half of 1938.

The "President's Trophy", awarded annually to the nationwide leader in Philco auto-radio sales, went to Hal Sheer, manager of the New York Division, who also won a Sales Manager's Award for his auto-radio results in the first half of 1938. Henry Swanton of the Yankee Division led the field of district representatives in the race for a representatives auto-radio award. Among the seven highest auto-radio reps were: Eustace Vynne, W. W. Taylor, Stuart Falk, W. C. Kennally, Ward Caldwell and David Lynch.

The "President's Award", presented to district representatives placing first in Philco's campaign year (all products) was won by T. W. Williams of the Northwest Division. Placing high were H. E. Grimm, Harold Dishon, Arthur Johnson and E. A. Orth.

Annual plaque awards to leading Philco distributors went to Schmier's Radio Shop of Rock Island (leading the country as well as the Northwest Division); Beaucaire, Inc., Rochester; M. P. Myers Co., Inc., Plattsburgh; Devlin-Drew Company of Fresno; Sterling Electric of Lexington; Pioneer Hardware of Burlington, Kansas; Taylor Distributing of Lubbock, Texas; Philco Radio & Television Corp. of Illinois, Chicago; Philco Radio & Television of New York and Philco Radio & Television of Pennsylvania.



WE THREE—Officers of Emerson-New York and Emerson-New Jersey: Lou Abrams, Lillian Guth and Harold Karlsruhe

purse. Since 1931 throughout the depression, Emerson sales have shown a constant and sizeable increase year after year. And during the present so-called 'recession' from September 1, 1937 to present time, Emerson sales have increased 34 per cent in terms of actual units sold, and 22 per cent in dollar value. At no time during the entire period dating back through the previous depression have we had to close the factory and stop production. And at no time have we cut our force more than 25 per cent from the peak employment roll."

Awarded a trophy over three feet in height for highest percentage above sales quota for the year ending May 31 was the Franklin Electric Company of Philadelphia. Surprise trophy awards were also made to the following distributors for above-quota sales: Hub Cycle Company of Boston, Commonwealth Utilities Company of Chicago, Schoellkopf Distributing Company of Dallas and the Coast Radio Supply Company of San Francisco.

Ben Abrams was presented with a gold pen and pencil set by members of the national sales staff and Ostilio Ciccarelli, designer of Emerson cabinets at the plant of the Ingrahm Company, received a gold watch from assembled distributors.

Detrola Distributors Convene

See table models ready for shipment. Hear Ross, Davin, other officials on consoles, self-starting phono models, "Mystery Box"

DETROIT—Assembled June 27 and 28 at the Fort Shelby Hotel here, Detroit Corporation distributors saw this company's complete line of table type radios, learned that all consoles would be ready for shipment before September 1, heard about a line of self-starting phonograph combinations, an automatic combination scheduled for shipment in 30 days, a "Mystery Box" control securing its power from the light socket and capable of push-button tuning 8 stations on any set. This should be a great attraction.

Distributors heard, too, that Detrola offered three types of tuning in its new line: (1) Mechanical (2) Motor Driven and (3) Permeability. Emphasized was the ease with which stations could be "set up" on push-button models. Obviously of considerable interest to the audience was a "Super Pee Wee" at \$22.50, two new battery type receivers upon which prices had not yet been placed.

Speaking to assembled distributors during the convention were: president Jack Ross, vice president in charge of sales Jim Davin, assistant sales manager Harry Legg, comptroller H. C. Scott. Also on the platform was Frank West, director of refrigeration engineering.

Included in the program during the convention was a sightseeing trip aboard the president's yacht "Detrola," a bus trek out to the plant.

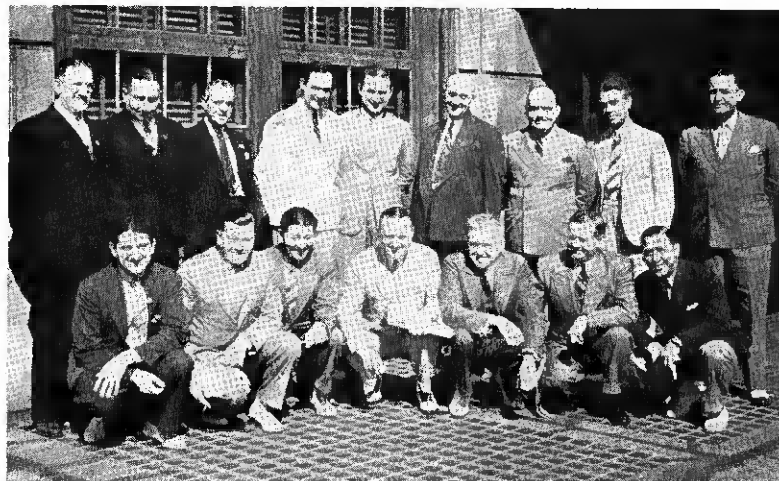
In from their territories for the convention were division salesmen H. A. Brennan, G. H. Eberhard Co., A. J. Engle, A. J. Parkas, Van Finger, Goodman Bros., M. J. Lewis, Ed. H. McCarthy, F. P. McMorrow, J. P. Miller, Fred and Dave Sanford and E. R. Shuster.

\$2,500,000 For Emerson

Convening distributors place unprecedented orders. Sales held up through "recession"

NEW YORK—The Emerson Radio & Phonograph Corporation smashed sales records during its convention at the Hotel New Yorker late in June, according to president Ben Abrams, who reports that contracts were recorded totalling \$2,500,000 worth of 1939 set models.

Commenting on the state of business, said Abrams: "Contrary to rumors and widespread belief, the radio industry is showing a constant healthy, month-by-month improvement, particularly for manufacturers who have correctly sensed what the public wants and have priced their merchandise to fit the nation's



RADIO AND REFRIGERATION—Detrola's national sales staff and division men, who served as hosts to distributors late last month. Left to right: (Front row) Goodman, Schuster, Goodman, Davin, Legg, McCarthy, McMorrow. (Standing) Evans, Harris, Rusch, Finger, Farkas, Engel, Lewis, Miller, Brennan



SEE SHURE'S NEW LINE—Shure Brothers execs and representatives after a luncheon during the Parts Show: (L to R, first row) Fred Ptashny, W. Sharer, H. Teplitz, R. M. Campion, H. W. Burwell, M. Evander, R. Clark. (Second row) H. S. Lea, S. K. Macdonald, M. A. Cope, R. P. Glover, S. N. Shure, E. L. Berman, J. B. Albert, H. Brauer. (Third row) F. Ellinger, F. Hill, J. P. Kay, L. M. Wood, W. Wood, H. P. Hardesty, J. Clawson, J. C. Hill, B. Baumzweiger, H. Palmleaf, M. Steiner. (Fourth row) O. H. Smith, C. H. Dolfuss, Jr., A. C. Simmonds, W. H. Ellinger, W. Davenport, J. H. Vawter, W. Bert Knight, R. C. James, Jr., A. Dolnick, F. E. Schmitt

Music Festival August 13

NEW YORK—The first International Music Festival is to be held during the 15-day period beginning August 13 in the grand ballroom of the Hotel Astor. Forty-eight exhibit spaces will be provided for makers of small musical instruments, pianos, organs, radios and phonographs.

Daily entertainment programs running from 30 to 45 minutes are planned.

Sonora To Sell N. Y. Direct

NEW YORK—Sonora radios and phonographs will be sold on a direct basis in this area henceforward, according to



AUTHOR, AUTHOR—On the flyleaf of a new book about Electrolytic Capacitors is the name of Paul McKnight Deeley, Cornell-Dubilier's electrolytic division chief engineer

advises received from Joe Gerl, president. Milton Benjamin, head of the company's phonograph operations division with headquarters here, will be in charge of the new plan affecting the metropolitan trade, plans a complete showing of the entire 1939 Sonora line at 132-134 W. 22 Street early in July.

The reception accorded the company's new products at the Chicago show last month has added impetus to Sonora production. This firm, it will be remembered, makes sets in a Chicago plant, phonograph instruments in New York.

Chicago Service Exhibit

CHICAGO—Planned for the LaSalle Hotel September 30 to October 2 inclusive, according to Marcus Hinson of the American Radio Association, is a convention of radio service engineers and laboratory managers and a radio service equipment show. Scheduled are technical and business talks by speakers as yet unnamed, trips to local service laboratories.

Sakhnoffsky Styles Emersons

NEW YORK—Count Alexis de Sakhnoffsky, whose imaginative designs for automobiles, trucks, trailers and boats have long been an attractive feature of the magazine "Esquire", turned his talents last month to the new line of radios in the works at the Emerson plant.

Newark Electric Buys Mid-West Mart

CHICAGO—The Newark Electric Company of this city has purchased the stock and goodwill of the Mid-West Radio Mart, effective June 17. Mid-West's store at 520 South State has been closed.

Think Of A Large Number

RCA Victor stages unique competition among dealers handling new tube line

CAMDEN—More than 500 entries had already been received in the first three weeks of the \$5,000 "trademark" competition being conducted by RCA Victor among authorized dealers handling the company's new line of tubes. Basing their estimate on the rate at which new entries are being received daily, officials estimate that more than 5,000 dealers will enter before the competition closes at midnight August 31.

Entrants submit an estimate of the total amount spent in the past ten years to advertise the RCA Victor trademark and the slogan: "His Master's Voice". A special audit has been made by the company to determine the exact amount. Fifty awards are to be made.

Judges include O. Fred Rost, Editor of *Radio Retailing*, Vance C. Woodcox, vice-president in charge of packaged goods sales for RCA Victor, Glad Henderson, Cy Knellar, O. H. Caldwell, R. D. Washburne.

EHFA OK's Detrola

DETROIT—The Electric Home and Farm Authority has declared Detrola radios and refrigerators eligible for financing.



WITH SEEBURG—M. W. Kenney, the J. P. Seeburg Corp's. new chief engineer. Graduated from Illinois U. as an E.E. in 1923, began radio work with G.E. Joined Sangamo in 1925, went with Grigsby-Grunow in 1927. Was chief engineer for this firm and Majestic Household in 1930, taking over same job when Grunow Corporation was formed. Became director of engineering for General Household, leaving in 1937 to become chief engineer of Motorola's home radio division

Howard Drive Started

CHICAGO—More than 75 distributors and their guests attended the Howard Radio Company's luncheon at the Blackstone Wednesday, June 8, saw the company's new line. Howard Briggs, vice president, and Charles Shapiro, vice president in charge of sales, outlined merchandising and sales plans. General manager Joseph Riley told of the Howard Company's long history in the business. Chief engineer presented and explained "permamatic tuning."

Immediately following the meeting Howard sales execs left Chicago to introduce the new line in their respective territories.

Show By Shapiro

NEWBURGH, N. Y.—Most successful dealer showing in years is reported by Jack Weisman, advertising and sales promotion manager for Shapiro Sporting Goods, RCA Victor distributor. Staged late in June, the meeting pulled dealers from all over the territory. Shapiro's, of which James Easman is president, has handled RCA Victor products for 40 years.

Illinois Condenser Moves

CHICAGO—To larger quarters at 1160 N. Howe Street moves The Illinois Condenser Company, simultaneously announcing a three-point sales policy: 1. A complete line of replacement condensers. 2. An absolute, exclusive jobber retail business. 3. Quality products at low prices.

J. J. Kurland is president, J. K. Kurland secretary and treasurer of this firm.

Presto at N.A.M.M.

NEW YORK—Presto Recording Corporation is to have ten portable sound recorders at the Chicago convention of the N.A.M.M., will make sample recordings free of charge for exhibitors, distributors, dealers in attendance. Facilities for recording soloists and small groups will be maintained in rooms 549-50 at the Hotel Stevens. Mailing envelopes are to be provided.

Letter of Introduction

CHICAGO—In the newly released movie "Letter of Introduction" a "Charlie McCarthy" model Majestic radio will appear. Every one of the more than 7800 theatres scheduled to show the picture will place a 4 by 5 foot full color poster bearing a picture of the set in their lobby, on their stage. Many theatres will simultaneously hold a Charlie McCarthy competition in which the sets will be used as awards.



PROOF—H. E. Osmun (left) of Centralab after a day at Partridge Lake, near Fremont, Wisconsin

"Five Per Cent for Promotion"

PHILADELPHIA—Members of the Philadelphia Radio Servicemen's Association assembled June 7 were urged to spend not less than 5 per cent of their gross receipts for some form of advertising or promotional activity. Smaller service organizations, in fact, have an even greater need for new customers, according to Harry P. Bridge, advertising counsellor for the International Resistance Company and other radio component makers, who made the recommendation.

"Up to the present," said Bridge, "all the emphasis seems to have gone to the technical side of servicing. That is basic. No one will deny its importance. The thing to remember, however, is that the best technician in the world might still be a complete flop if he is not a good businessman to boot."

Seeman In New Quarters

BUFFALO—W. F. "Bill" Seeman, rep for Ohmite, Solar and other well-known radio and electrical equipment makers, has just moved to new quarters at 523 Ellicott Square.



TELLS 'EM—Distributor Al Hirsch, from the far west, tells manufacturers attending the Parts Show more rigid price policies are needed on replacement items if the industry in general is to collect any "blue chips"

With the JOBBERS and REPS

SONORA—Herbert H. Horne of Los Angeles has this company's phonographs and combinations in southern California, C. F. Sexton of Radio Products Sales Company has the exclusive on Sonora sets throughout Pacific coast states, Brower Murphy and Jack Cota have been appointed representatives for radio and phonograph divisions in the southeastern states, with headquarters at Atlanta.

HOWARD—This firm's new household receiver line goes to distributor E. L. Chambers Company in the Cincinnati area, Radio Supply Company of this same city continuing to handle the Howard communications receivers. Representing Howard on communications receivers in Pennsylvania, West Virginia, Maryland, Delaware, Washington (D.C.) and eastern Ohio is O. Olsen of Pittsburgh. P. D. Terwilliger of Rochester will rep the communication receiver line in New York state with the exception of metropolitan New York City.

MUELLER—Fred Somers of Kansas City gets this line for Missouri, Iowa, Nebraska and Kansas. Walter W. Boyd of Chicago has it in Illinois, eastern and southern Wisconsin.

APEX—Mayflower Lamp and Sales has just been appointed to handle this washer, ironer, cleaner and refrigerator line in St. Louis and surrounding territory.

PREMAX PRODUCTS—For details of this firm's proposition relative to "Tri-Bar" auto antennas and vertical antennas for 10 and 20 meter transmission as well as reception on all bands, see Bill Gold of 72 Park Place if you are in the New York territory. He's the new rep. Al Braving of 208 N. Wells Street is this Chisholm-Ryder Company division's new man in Chicago.

DETROLA—Waken & Whipple, Inc., of Chicago, has just taken on this concern's radio and refrigerator lines. Covering northern and central Illinois and western Indiana, this firm is headed up by general manager Henry Smith.

New distributors for the Pee Wee and Detrola radio lines include: Brown Supply, St. Louis; Jones-Cornett, Welch, W. Va., Polk Musical, Atlanta; Southwestern Music, Dallas; E. E. Forbes, Birmingham; Kelley-How-Thompson, Duluth; Radio Television, Phoenix; Oakley Electric, Boise; Wilson Music, Oshkosh; 555 Inc., Little Rock; W. B. Davis, Memphis; Williams & Shelton, Charlotte; Piedmont Distributors, Greensboro; W. S. Donan Hardware, Richmond; Radio Supply, Norfolk; True & Blanchard, Newport, Vt.; R. B. Wall, Wilkes-Barre.

HORTON - first every time

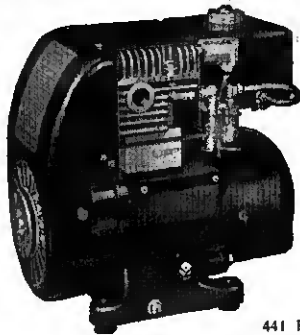
A CLEAN, fair-dealing policy . . . embracing a full measure of value for everyone . . . and pledged to maintain a front-rank position for the industry's pioneer name—that's Horton.

In the complete line of Horton washers and ironers there are models to meet every sales possibility. Write now for details, without obligation.

finest every way. **HORTON**
 HORTON MANUFACTURING CO., FORT WAYNE, INDIANA

COMPLETE ELECTRIC PLANTS

NEW 1938 MODELS



OPERATE A.C. RADIO, PUBLIC ADDRESS, SOUND CAR, MOTION PICTURE EQUIPMENT AND RADIO TRANSMITTERS.

Also furnish power for Lights, Water Systems, all Household Appliances, for Camps, Farms, Lake Homes, or Standby Service. For use anywhere power is not available.

350 to 5000 Watts
 110 volt A.C., 6, 12, 32 and 110 volt D.C., and Combination AC-DC Units. Anyone can Operate. Complete, ready to run.

Write for Details and Territory

D. W. ONAN & SONS

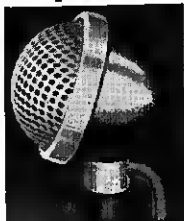
441 Royalston Ave. Minneapolis, Minn.

Open Rich New Sales Fields with **TURNER'S New No. 55 "Torpedo" Crystal Microphone**

Licensed

Guaranteed 1 Year

HAMS and sound men are discarding obsolete mikes for the **TURNER TORPEDO** because they get smooth response, freedom from feedback, cushioned construction, and streamline style, at amazing low cost. The **TORPEDO** is priced so Public Address Operators buy several at a time, and helps you offer complete amplifier systems at a lower price. You get quick turnover, tie up less in inventory, and make clean cut sales in new fields. The **TURNER TORPEDO** is equal to mikes costing 50% more, but priced to overcome sales resistance. You get a wide margin on every sale. Order today.



14.95

LIST

Standard Discount

THE TURNER CO.

909 17th St. N. E.
 Cedar Rapids, Iowa

Licensed Under Patents of the
 Brush Development Co.

Model 55, with Side Open Coupler and Cable. Finished in chrome, aluminum and black. Range 50-7000 cycles. Output -60dB. Semi-directional—Diagrams packed with each mike.

RCA Victor

**TIME-SAVING, PROFIT-PACKED
 Phone SYSTEMS!**



Two types are available—a wireless system for instant 2-way inter-office communication... a wired system for 1 to 5 channel communication! Both sell at reasonable cost—assure you worth-while profits.

Designed to meet the time-saving requirements of modern business, these RCA Victor phones will appeal to a tremendous market—a market you can sell. Practically every place of business is a prospect. Auto dealers, banks, dentists, doctors, factories, hospi-

itals, police stations, schools, and dozens of others! Not only do these two RCA systems offer many excellent sales features, but both are moderately priced. Order your supply now—and climb aboard this plus-profit wagon!

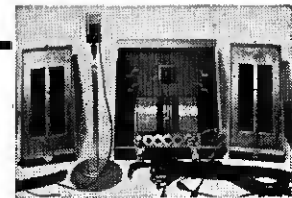
FOR 2-WAY COMMUNICATION REQUIREMENTS RCA VICTOR WIRELESS PHONE—JUST PLUG IN—AND TALK



Model MI-6350 illustrated above, is as simple as it is effective. Your customer simply plugs into the light socket (110 volt AC or DC) presses a button, and talks. No wires, no batteries, no installation at all. Works perfectly at all times.

In addition to the wireless system illustrated, RCA Victor also offers a master

phone system for 1, 2, 3, 4 and 5 channel communication, which will be particularly popular in business offices. Speech is clearly heard up to 25 feet from the loudspeaker. Further information from distributor.



RCA PG-112 PORTABLE P. A. SYSTEM
... another money-making item!

Illustrated above, this system is universally adaptable. Operates from 110 AC or 6-volt storage battery and dynamotor. Permanent or mobile installation, 12 watts output. Two powerful dynamic speakers with RCA Velocity Microphone. This highly efficient system is excellent for scores of locations where good sound is paramount. Besides its many selling features, the PG-112 is low in price—only \$199.50.

Have you secured your copy of RCA's new sound catalog? If not, be sure to get it from your distributor, or write direct to us in Camden, N. J.

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

Any sound system sounds better equipped with **RCA Radio Tubes**



Commercial Sound

RCA MANUFACTURING CO., INC., CAMDEN, N. J.
 A Service of the Radio Corporation of America

HERE'S YOUR BIG PROFIT LINE FOR SUMMER Mr. Radio Dealer!



Every radio dealer can share in the profits from the sale of cameras. There is no recession to the sale of cameras . . . every sales report proves that the demand is increasing . . . and the radio dealer has the logical "set-up" to cash in on this consumer demand.

Feature the Sensational

IRWIN MAGAZINE LOADING
16mm Movie Camera

\$12.95

That lists for only
Picture 4 times as large as 8mm
LOWEST 16mm FILM COST

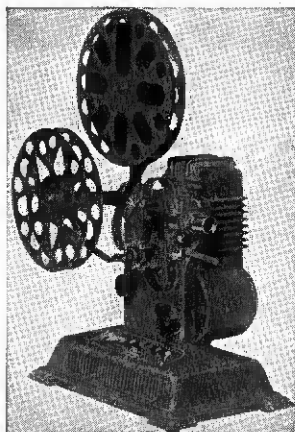
No other 16 mm movie camera selling for less than \$60.00 combines such important selling features: **LOW LIST PRICE! LOW MAINTENANCE COST! QUALITY PERFORMANCE! SIMPLEST TO OPERATE! TAKE LIFE-LIKE COLORED MOVIES! MAGAZINE LOADING! BEAUTIFUL APPEARANCE!**

It's the greatest buy on the market!
NATIONWIDE PROCESSING SERVICE

Irwin 8 and 16mm Zephyr

Air Conditioned \$18.95
PROJECTORS for AC
Deluxe Model for AC-DC Operation \$22.50

The finest low-priced 8 and 16 mm Projectors on the market. Possesses all the features found on projectors selling for twice their price. Rugged in construction, excellent in performance and professional in appearance. Just the item to turn summer losses into profits.



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Handbooks, Catalogs, Displays

RESISTANCE CATALOG—*Ohmite* of Chicago announces No. 17, replete with tables, pictures, that make it easy to select the right vitreous enameled rheostat, resistor, line cord resistor, r.f. choke, transmitting band change switch or tap-switch for any industrial, radio or electronic job. Write 4835 W. Flournoy Street.

INSTRUMENT, RESISTOR BOOKLET—*Shallcross Manufacturing Company* of Collingdale, Pennsylvania, has just announced bulletin No. 140, which gives a brief description of manufactured precision instruments, resistors accurate to within 1 per cent, plus or minus of rating and available with even closer tolerance.

44-PAGER—*Meissner Manufacturing* of Mt. Carmel, Illinois, has just released a 44 page catalog listing all company products including complete kits, P.A. tuners, allwave tuning units, coil assemblies, adapter kits, push button tuners, remote controls, interference filters, signal shifters, filters, transformers, chokes, dials, condensers, switches, chassis, cabinets, panels and other featured items. Available at parts jobbers or by writing direct to the factory. No charge.

MONKEY - BUSINESS — "Don't monkey with your radio . . . call us for radio service" reads a new series of signs by *National Union* worded in a manner certain to meet with the serviceman's approval.

BULLSEYE ON BALLASTS—Introduced at the psychological moment, when everybody is somewhat up in the air about ballast unit characteristics because of their great number, a new booklet by *Champion Radio Works* of Danvers, Massachusetts fills a definite need. Free to men writing on company stationery.

CONDENSER DATA—Catalog 9-S is a new number by the *Solar Mfg. Corp.* of 599 Broadway, New York. Includes the firm's new line of Minicap dry electrolytics and the new CC analyzer description. Full of dope about ratings and illustrations, printed in five colors. No charge, so write direct.

COILS ET AL—*Miller Radio Products* of Los Angeles offers free to *RR* readers who write direct, a new 32-page book describing all company products, including 30 circuits of wide-range tuners, high-fidelity, aircraft and conventional broadcast and shortwave receivers. Everything Miller makes, with list prices.

FARM RADIO SALES

(Continued from page 18)

over the old and antiquated models found in thousands of farm homes.

To overcome that type of sales resistance requires most careful sales planning and follow-up work, and it is there that so many radio dealers unfortunately have failed most woefully.

That the market for battery sets, batteries, chargers, accessories and equipment is worth going after is readily demonstrated by the accompanying chart. Private utilities have been building high lines for thirty years, wherever there was chance of a fair return on the investment. In the last three years the R.E.A. has pushed high lines 107,000 miles further into more sparsely settled territory so that it averages only 3 customers per mile of high line. Despite those decades of effort of utilities and the new spurt that was given to rural electrification by the R.E.A. there are today still 4,850,583 farms without high-line service, and it is probable that there will be always well over 4,000,000 such farms because they are too isolated and they could not be served even by a cooperative without inviting bankruptcy.

But, aside from the large number of potential buyers of battery sets and equipment, the potential volume of each sale makes this a particularly attractive market for dealers who are located in, or adjacent to, rural territory.

Every battery set requires certain auxiliary equipment, so that every sale results actually in a group of sales or a "package" sale, composed of several important units.

Batteries are indispensable as initial equipment, and they are a repeat item that demands replacement at regular intervals. Gasoline or wind generators generally are part of the first "package," and their use often leads to purchases of generators of greater capacity so as to provide lighting, and in some cases power, for house and farm appliances. In either case, a suitable wiring kit can be made part of the package with good profit.

Thus, when a dealer makes the best of a battery set sale, he is selling a real bill of goods, and as those several items inevitably must

(Please turn to page 72)



WELLS MUSIC—Charles E. Wells, president of this Denver firm, won Stromberg-Carlson salesmanship award in Rocky Mountain territory. Left to right: Retail radio department manager *Herb Names*, *Russell Wells*, S-C's *Ken Gillespie* and distributor *Robert F. Clark*



KNIGHT-CAMPBELL—Pictured listening to a Stromberg-Carlson "Labyrinth" demonstration, members of this firm placed high in the drive. Left to right: Salesman *Sam Castle*, president *C. R. Baker*, *R. G. Nathan*, *W. W. Bradford*, *C. B. Beidler*, *H. W. Allen*, *L. L. Hood*, S-C's *K. G. Gillespie*, *Geo. Nicodemus*

REL Active Again

LONG ISLAND CITY—Radio Engineering Laboratories, Inc., of 35-52 36th St., manufacturer of early and successful two-way ultra high frequency systems in 18 cities such as Bayonne, N. J., Springfield, Ohio, Kansas City, Kansas and Long Beach, Calif., is once again actively soliciting business in this field. An agreement resolving patent difficulties

was reached June 22 with American Telephone and Telegraph Company.

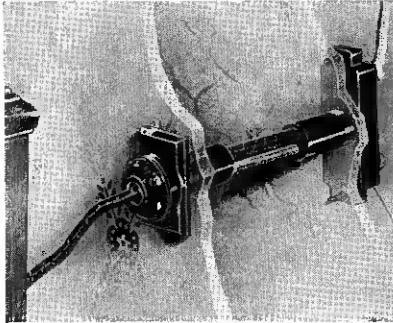
Vocograph Omission

NEW YORK—Accidentally sliced from the galleys during makeup of a page by the printer, the Vocograph Sound Systems Division of Electronics Design Corpora-

tion, 164 N. May St., Chicago, was omitted from the "Sound" listing on page 67 of *Radio Retailing's* June issue.

One of the company's products was pictured and described on page 31 but it should have been noted on page 67, as well, that Vocograph makes a complete line of sound apparatus. Readers should add this name to make the June listing complete for reference.

COR-NEX gives the service man a new profit-opportunity



An ultra-modern Connector between aerial and receiver—with high type **DOUBLET** Arrester. Invented by a service man! Easily and quickly installed—long wanted by housewives—what a sweet, clean proposition . . .

INVESTIGATE!

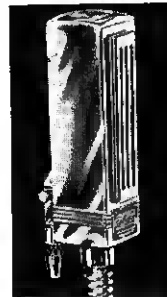
Cornish Wire Co., Inc.
30 Church Street
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NEW UNIVERSAL PRODUCTS for 1938 STREAMLINED

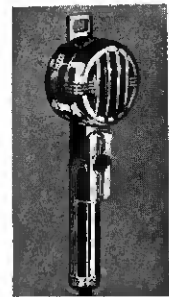
DYNAMIC • CRYSTAL • CARBON • VELOCITY



The 15 mm. in dynamic, crystal or carbon.



The new 5 mm. ribbon.



The new model Handi-mike.

A complete new line of microphones and recording equipment approved and used by leading broadcast stations, transcription studios, laboratories, schools and universities . . . everywhere that tone quality and faithful reproduction is demanded. New complete 16-page catalog . . . one for microphones and accessories and one for recording machines and discs . . . ready for mailing. Write on your business letterhead, or ask your nearest representative.



Universal Microphone Co., Ltd.
INGLEWOOD, CALIFORNIA, U.S.A.

EXPORT AGENTS - FRAZAR & CO., 7 FRONT ST. SAN FRANCISCO

A GOOD NAME GOES A LONG WAY



Share the prestige of the KenRad name. Satisfy customers, make profit with dependable KenRad Radio Tubes.

KenRad Tube & Lamp Corp.
Owensboro, Ky.

KEN-RAD

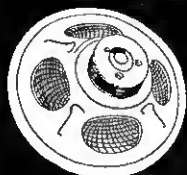
DEPENDABLE RADIO TUBES



UTAH WINS!

At any event where speakers play an important part, you will usually find Utah Speakers selected for their unexcelled performance and dependable, trouble-free operation. The Utah trademark affixed to a radio speaker has been the symbol of dependability for seventeen years.

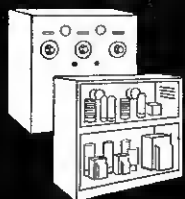
There are Utah Speakers for every purpose — home radio — auto radio — inter-communication systems — P. A. systems. They have earned an enviable customer preference. Like all other Utah products, Utah Speakers are precision engineered and time tested to meet the gruelling performance requirements of today—INSIST on the Utah trademark on the speakers YOU buy—Ask your parts jobber.



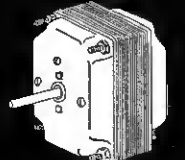
SPEAKERS



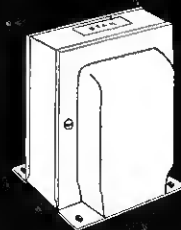
VIBRATORS



AMATEUR TRANSMITTER KITS



MIDGET MOTORS



TRANSFORMERS AND CHOKES



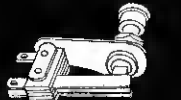
VOLUME AND TONE CONTROLS



PLUGS AND JACKS



VITREOUS RESISTORS



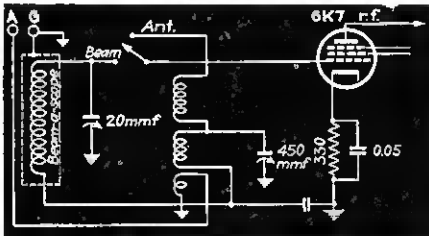
SWITCHES

U T A H RADIO PRODUCTS CO.
CHICAGO, U. S. A. CABLE: UTARADIO, CHICAGO

DEPENDABLE SINCE 1922

TECHNICAL TOPICS

SERVICE • SOUND • CIRCUITS • INSTALLATION • PARTS



Beam-a-scope Antenna

For reception of local high fidelity programs G.E. has built a special self contained antenna into the cabinet of their new models.

The device, known as the beam-scope consists of a tuned circuit completely enclosed by a special shield of the Faraday type. This possesses the properties of excluding electrostatic fields, allowing only electromagnetic fields to pass. Since most interference or noise is of electrostatic nature it is greatly reduced.

The beam-scope itself is similar to a loop antenna. This is housed inside the electrostatic shield as shown in the illustration. When the receiver is first installed in a home, the beam-scope is rotated and left in a position of minimum noise pickup. This adjustment is made preferable with the set tuned to a weak signal. It is not

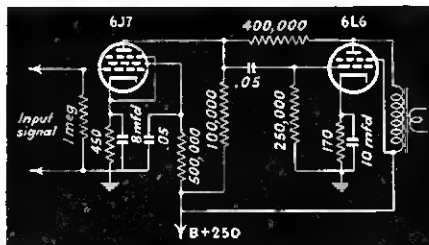
usually necessary to readjust once the setting is made.

Referring to the diagram, either beam-scope or antenna reception may be had. When switched to beam-scope, the large loop replaces the normal antenna coil and circuit. Alignment of the loop is made by a small 20 mmf trimmer.

Throwing the beam-scope switch to the opposite position connects the set to a regular antenna coil circuit. In this position the set is normal in every respect.

The beam-scope loop does not track with the gang condenser. It is a broadly tuned circuit and requires no tuning within the limits of the broadcast band.

The unit measures approximately 12 inches wide by 24 inches long and is mounted near the speaker in the rear of the cabinet



Parallel Inverse-Feedback

Inverse-feedback circuits may be of the constant-voltage or constant-current type. Constant-current inverse feedback is usually obtained by removing the by-pass condenser across a cathode resistor. The effects of removing a cathode-resistor by-pass condenser are to increase the plate resistance of the tube, reduce the gain of the amplifier stage, and decrease distortion. When the plate resistance of an output tube is increased, the hang-over effects at the resonant frequency of the speaker are accentuated. Constant-voltage inverse-feedback circuits, however, reduce the rise in output voltage with frequency, decrease hang-over effects at the resonant frequency of the speaker, and reduce distortion within the limits of the broad-

feedback of the constant-voltage type in a power-output stage, it is not necessary to employ a resistance-capacitance network to reduce response at high audio frequencies.

There are two general types of constant-voltage inverse-feedback circuits, i.e., series and parallel. In the series type, a portion of the output voltage is applied in series with the input signal; in the parallel type, a portion of the output voltage is applied in parallel with the input signal to the tube. The parallel type of inverse-feedback circuit is often more simple and more economical than the series type.

Referring to the schematic, the addition of the single 400,000 ohm feedback resistor to the standard audio amplifier gave improved results. With no feedback, distortion was slightly over 10 per cent at 6.5 watts output. With no changes other than the insertion of the feedback resistor distortion dropped to 2.5 per cent at the same output.

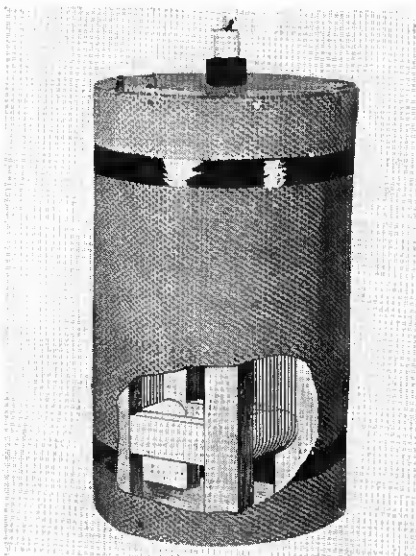
Dry-Cell Tubes

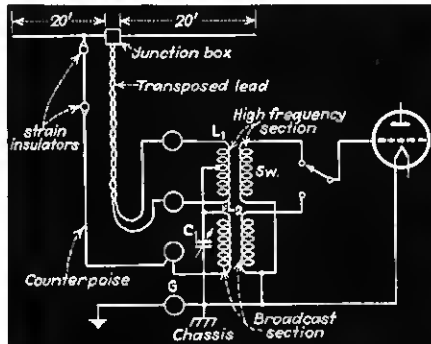
A new series of 1.4 volt battery tubes have been announced by Sylvania. This permits operation on dry cells without the use of a dropping resistor.

The 1A5G is a power output pentode delivering 115 milliwatts of audio at 90 volts with a plate current of 4 ma. Filament current is .05 amp. Another power pentode is the 1C5G; delivering 240 milliwatts at 90 volts and 7.5 ma with a filament current of .1 amp.

An r.f. pentode, the 1N5G, is included in the line. Also a pentagrid converter, the 1A7G, and a diode triode, the 1H5G. All three have .05 amp. filament and are designed for 9 volt operation.

The filament on all five tubes is rated at 1.4 volts. However, they may be operated directly from a 1.5 cell since their design provides satisfactory performance over the useful voltage range normally encountered during the life of a battery.





Noise-Reducing Antenna

A novel system of noise reduction is designed around a new antenna by RCA. A bucking-out action on noise is obtained by running a counterpoise parallel to the twisted transmission line.

As shown in the schematic the antenna consists of a normal doublet fed at the center with transmission line. At a distance of 2 to 5 inches from the transmission line a counterpoise runs parallel to the line down to the receiver. The length of the counterpoise should be one half the length of the transmission line, plus 10 feet.

At the receiver the transmission line terminates in a center tapped coupling coil (L1). The counterpoise terminates in L2.

A doublet, such as is shown here less the counterpoise, has the properties of cancelling-out noise picked up in the feeder. However when noise level is high, cancellation is not complete. The counterpoise comes into play by picking up noise in the vicinity of the feeder and impressing it back on the circuit, out of phase with the noise picked up by the feeder. Since the two are opposite they cancel and no noise reaches the receiver input coil.

The correct phasing adjustment between the counterpoise and the transmission lead is obtained by adjusting the trimmer C1.

The full effect of the noise reducing properties of the antenna is most noticeable on the broadcast band, on which C1 is tuned. C1 has little effect on high frequency bands. Here, the noise reducing properties are automatic.

High Frequency Converter

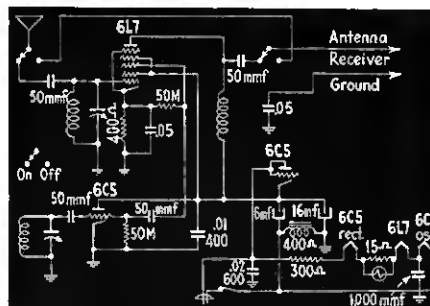
Attaching to any receiver, the converter, the circuit of which is shown

here, will permit reception from 12 to 4.76 meters.

Many broadcast stations are putting on high-fidelity programs on ultra high frequencies, thus the converter becomes a useful set accessory.

Referring to the circuit, a 6L7 is used as mixer. Energy from the antenna feeds into the number 1 grid. The 6C5 oscillator injects a high frequency signal into the number three grid. The heterodyne between this signal and an incoming signal from the antenna causes a low frequency beat which may be tuned in on a standard receiver when the antenna circuit is connected as shown in the diagram and the set tuned between 550 and 700 kc.

The unit operates on ac. or dc., a 6C5 serves as rectifier. A built-in switch permits the converter to be thrown out of the circuit, returning the receiver to its normal frequency.



Channel Analyzer

Of major interest to technicians is John F. Rider's new test instrument called "Chanalyst," described here for the first time in print. A practical device which permits quick, accurate location of trouble centers by a method long discussed but hitherto rarely used in the field, the instrument's basic functions revolve around its ability to measure signal voltages (r.f., i.f., a.f.) at any point in a receiver's circuit without disturbing circuit operation.

Perhaps the simplest method of easing *Technical Topics* readers into a complete understanding of the Chanalyst's principle is to describe, first, how it is set up on an actual job: In all cases where a test is desired a signal is fed into the antenna circuit of the offending receiver from any test oscillator. If the receiver is dead, the signal is traced by means of the instrument to the point where it dies. If the sensitivity is low the signal is checked from stage to stage, from winding to winding, and observation

made of the increase in signal strength as progress is made through the receiver.

The unit, shown in block diagram form (Fig. 1), embraces a number of pick-up channels, each of these channels being calibrated in reference units and connected to an indicator, actually a cathode-ray tuning eye tube. One pick-up or test channel covers the r.f. and i.f. range from 95 kc. to 1700 kc., in three bands. Another channel covers the oscillator stage in a superheterodyne and is calibrated over a range from 600 kc. to 15,000 kc. and a supplementary arrangement provides a check upon the performance of the oscillator up to 70 mc. Another channel operates over the audio-frequency band of 50 to 50,000 cycles. A fourth channel is used as a wattage indicator to show the current consumption of the receiver under test. The electronic voltmeter incorporated in the unit is of special design. It has a constant input of 10 megohms and is operative over four ranges. These are -5 through 0 to +5 volts; -25 volts through 0 to +25 volts; -100 volts through 0 to +100 volts and from -500 through 0 to +500 volts.

The r.f., i.f. and oscillator channel pick-up is accomplished through a coupling capacity of less than 1.0 mmf (one micromicrofarad). This coupling capacity is located in the probe, which is connected to the unit through shielded cables. Since testing of r.f. channels is done at broadcast frequencies between 600 and 900 kc, the detuning effect is negligible. This entire r.f. and i.f. band is calibrated in frequency. Checking of the r.f. channels at frequencies above the broadcast band is not provided because monitoring of the other portions of the receiver at frequencies above the broadcast band immediately shows if the r.f. circuit is inoperative.

The detuning effect upon the receiver oscillator at the test frequencies used in the broadcast band is negligible. At the higher frequencies the detuning is more apparent, but it does

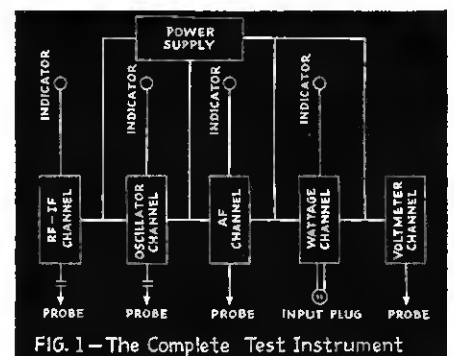


FIG. 1—The Complete Test Instrument

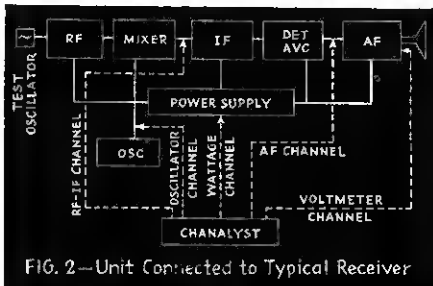


FIG. 2—Unit Connected to Typical Receiver

not interfere with the operation of the unit for any type of test, because the sole purpose of the pick-up channel is to see if the oscillator is operating and to probe through the oscillator circuit in the receiver to see if the circuit is intact. After that, the localization of the trouble is accomplished by interpretation of the indications shown upon the tuning eyes when an intermittent develops. . . . At no time is the detuning effect so great as to impair the operation to the extent that the proper tests cannot be made. As far as the audio channel is concerned, there is no detuning effect and this channel is calibrated in reference input voltage values from .1 to 1000 volts.

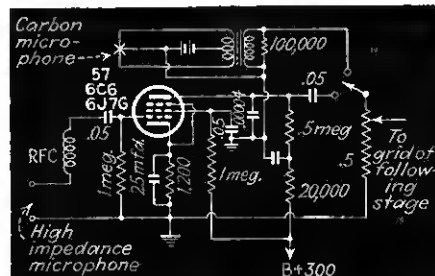
A pick-up probe is provided for the r.f. and i.f. channel, the oscillator channel; the a.f. channel and the voltmeter (Fig. 2). Each or all of these probes can be used at the same time and placed in contact with any portion of the respective circuits in the receiver. The r.f., i.f. channel is resonated to the frequency of the r.f. or the i.f. circuit and it is possible to check the presence or absence of these signals, the level of the signal, and its character. The signal can be fed to a pair of headphones or to an oscillograph if so desired.

The output of the a.f. channel, unrectified, can be fed to earphones or to an oscillograph for visual observation. As in the case of the previous channels, the level as well as the character of the signal can be established. Like the other channels, the a.f. signal can be picked up any place in the a.f. system. Thus it is possible to check for the output of phase inverter tubes to see that the input to the output push-pull tubes is equal. The same applies to voltages across the sections of push-pull transformers.

The design of the electronic voltmeter is such that it can be connected anywhere in the receiver circuit and it will indicate the proper polarity of the circuit without switching leads. Also, it can be connected to any point in the tuned circuits where a d.c. voltage exists without interfering with the signal in the circuit. For example, it can be connected to the control grid

of the r.f. mixer, or i.f. tubes to indicate the avc. voltage, and as the receiver is tuned or the test oscillator tuning varied so as to vary the signal passing through the receiver, and so the avc. voltage, the meter will indicate the simultaneous variation in avc. voltage at the control grid of the tube being checked.

The wattage indicator channel is an important part of the system because, when used in conjunction with a test of the highest d.c. voltage in the receiver, as for example the voltage upon the plate or screen of the output tube, it will immediately indicate the type of trouble in the event of a condition which loads the power supply, thereby increasing the wattage consumption of the receiver. This indicator is calibrated from 25 to 250 volts and is automatically brought into the circuit when the receiver is placed on test. Any abnormal or subnormal wattage indication when combined with the d.c. voltage available from the power supply, immediately supplies definite information relative to the type of trouble.



Tube Handbook

A multitude of tube characteristics and circuits are contained in the "Handbook Of Amateur Tube Uses" edited by the engineering staff of Raytheon.

For those who are interested in high power audio equipment there is plenty of information on class B audio amplifiers. Hams will find complete data on all types of r.f. amplifiers, modulators, detectors, modulation indicators and rectifier circuits in addition to full characteristic and ratings on all Raytheon tubes.

The circuit shown herewith is a pre-amplifier to a driver stage intended to excite a Class B amplifier. It is interesting since it is designed to operate in the vicinity of large r.f. currents. R.f. feedback is prevented by an r.f. choke in the grid lead and a 40 mmf bypass from plate to ground.

A novel full color scale indicating

plate operating temperatures is a very valuable addition. The booklet is available at a nominal charge.

New Tubes

6AF6G—A high vacuum twin indicator tube by RCA similar to the 6AD6G. Each control electrode can perform independently of the other to produce a separate shadow. Characteristics are:

Heater Voltage....		6.3 volts
Heater Current....		.15 amp.
Target Voltage....	100	135 volts
Target Current....	0.9	1.5 ma.
Control Electrode Voltage (shadow closed).....	60	81 volts
Control Electrode Voltage (100 degree shadow)....	0	0 volts

6AD6G—A indirectly heated cathode dual control electrode tuning indicator by National Union. The two control electrodes are alike, producing a symmetrical pattern when connected in parallel to a control voltage. When connected to separate control voltages, each side of the pattern may be controlled independently. Characteristics are:

Heater Voltage....		6.3 volts
Heater Current....		.15 amp.
Target Voltage....	100	150 volts
Control Electrode (shadow closed).....	45	75 volts
Control Electrode (90 degree shadow).....	0	8 volts
Control Electrode (135 degree shadow).....	-23	-50 volts
Target Current (shadow closed).....	1.5	3.0 ma.
Target Current (90 degree shadow).....	1.0	2.0 ma.
Target Current (135 degree shadow).....	0.8	1.2 ma.

1852—A high gain r.f. and i.f. pentode by RCA for use on high frequencies or in television circuits. Electrode assembly is identical to the 1851, but a special shielded lead construction has been employed to permit bringing out the control grid to the base pin rather than the pin cap. This simplifies circuit wiring. Amplification factor is 6750.

6P5G—A triode designed for service as a detector or amplifier in battery or a.c. operated receivers. The ratings and characteristics are identical to those of the 76. Characteristics are:

Plate voltage.....	100	250 volts
Grid bias.....	-5	-13.5 volts
Amplification factor.....	13.8	13.8
Plate resistance....	12,000	9,500 ohms
Trans conductance	1,150	1,450 umhos
Plate current.....	2.5	5 ma.

NOW! You Too... Can afford to Own a Mobile Sound System



Model M-618

COMPLETE SYSTEM \$89.70

with Amplifier M-618, Turntable and Pickup with both 6 v. DC power pack and 110 v. AC power pack, two Model 3812 speakers, 15' cables and plugs, 1 Model 1240H velotron microphone with 25' of cable and plug; less tubes, less horns, NET PRICE \$89.70

This remarkable new addition to Webster-Chicago's line makes it possible for dealers who have long wanted to get into the sound business to own a system that will take care of all kinds of rental requirements.

Handling up to 3000 people outdoors and double this number indoors, it will handle all moderate size gatherings. Remember, this system includes phonograph turntable and motor, microphone, power packs and speakers.

Don't delay. . . See Your Jobber or Write to Webster-Chicago for more information.

WEBSTER-CHICAGO

WEBSTER-CHICAGO
Section JU-8, 5622 Bloomingdale Ave., Chicago, Ill.
Please send me more information on

- New Mobile System M-618
 Complete Catalog

Name

Address

City State

Manufactured under license arrangements with Electrical Research Products, Inc., subsidiary of Western Electric Co., Inc., and American Telephone and Telegraph Co.

New WEBSTER-CHICAGO 18 Watt

Mobile Sound System

6 v. DC—110 v. AC Operation

- Amplifier is 4-Stage, 6 tubes, 18 Watts output with Multi-Stage Degeneration Phase Inversion
- One Microphone, one Phonograph and one Tone Control
- Phonograph Turntable is Built in as Integral Part of Amplifier
- P.M. Speakers
- Economical Power Requirements

This new Webster-Chicago system, Model M-618 combines all the advantages previously associated with the larger installations. This unit is built with the latest sound features, is thoroughly flexible, can be used both indoors and outdoors and on sound trucks. Ideal for rentals.

All component parts used are selected with Webster-Chicago's usual care and this unit carries Webster-Chicago's standard guarantee.

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Line to . . . MULTI-SPEAKER Transformer

FOR SOUND SPECIALISTS EVERYWHERE

Changes impedance from a 250 or 500 ohm line to match impedance of any number of 500 ohm speakers up to 6.

• Another scoop by Halldorson engineers. . . takes plenty of grief from the shoulders of the Sound Specialist. Just turn the knob to match for any number of speakers to 6. Two transformers will handle to 12, etc.

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Halldorson Vacuum Sealed Transformers

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THE HALLDORSON COMPANY

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SEPARATE PLATE TESTS ON DIODES AND RECTIFIERS... BALLAST TUBE TEST



Positively Checks Radio Receiving Tubes According to Latest Recommendations of Tube Engineers.

NEW MODEL 432 Only \$21.60

- Uses Triplet Direct Reading Instrument (GOOD-BAD) Scale
- Line Voltage Adjustment
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- Separate Plate Tests on Diodes and Rectifiers

Complete in attractive, sturdy quartered-oak case; suitable for counter or portable use. Sloping etched panel of silver and black.

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READRITE METER WORKS

Ultra High Frequency Antennas

LIKELY to be of considerable importance to servicemen within the next few years, and something of a "foreign country" to them at this writing are ultra high frequency antennas. High fidelity broadcast stations are already operating in several large cities, with new applications pending; police, fire department and coast guard services are seeking other channels in this region. Special portable licenses have been allocated to newspapers to facilitate forwarding news to the main office. Last but not least, television is certain to use the ultra highs.

Chief differences between ultra high frequency antennas and those for lower frequencies are: (1) Because of their physical dimensions they can readily be tuned to approximate station operating frequencies. This is a valuable coincidence, as pickup is even more important on the ultra highs than on lower frequencies and is readily obtained in this manner. (2) Ultra high frequency antennas are much more critical as to height. Every foot of extra height that can be obtained returns dividends in appreciably stronger signals and, even more important, materially greater distances. (3) Losses in transmission lines between the antenna proper and the set are more difficult to avoid so the question of low-loss feeders becomes an extremely important factor.

Simple Half Wave Antennas

As to antenna types, there are several that are suitable. Unless otherwise indicated, all types to be mentioned will be vertical half wave non-directional antennas. Directional types will be discussed later. The single wire feed system shown in Fig. 1 is one of the simplest. Antenna proper, designated by "A", may be an auto fish pole type, the resonant length of which is given in the table for three popular frequencies. Choose the frequency nearest that of the station or stations operating in your area and adjust the antenna to the length given for that frequency.

The single wire feeder connecting the antenna to the set taps several inches off the center of the antenna. This is designated by "T", the value of which is given in the table. Since the feeder of this antenna is of the unbalanced type it is not recommended for noisy locations or installations where a long feeder is necessary.

The twisted-pair doublet system shown in Fig. 2 is most satisfactory

By C. A. NUEBLING

for the average installation. The antenna is split in the center, each section connecting to one leg of twisted transmission line, several types of which are on the market.

For extremely long feeder lengths, over a few hundred feet, the concentric doublet of Fig. 3 is desirable. The antenna proper is identical to that of Fig. 2. Feeder construction consists of a single wire, passed through the center of, and insulated from, a copper tubing sheath. Insulation is usually ceramic beads slipped over the inner conductor. Such a feeder is available from large supply houses. Flexible concentric line, using a braided outer conductor and rubber or equivalent insulation is also available.

A highly efficient antenna is illustrated in Fig. 4. Number 14 wires spaced 5 inches by insulated spreaders form a 600 ohm line. This is matched to the antenna by the "Q" transformer constructed of $\frac{1}{2}$ inch tubing closely spaced. The length and spacing of the "Q" are given. Such a feeder, although not quite as efficient as concentric, may be run any length with little loss.

Fig. 5 uses the same feeder construction as Fig. 4. The matching transformer "T" consists of rods spaced 3 inches and slightly longer than the dimensions given in the table for "T". The bottom ends of "T" are shorted together by a sliding bar. Moving the bar tunes the transformer. The dimension "T" is measured from sliding bar to the open top of the transformer section. Feeders tap off $\frac{1}{3}$ of the transformer length measured from the shorting bar end.

A modified "J" type easier to con-

struct is shown in Fig. 6. The bottom end of the transformer in this case is not shorted but connected instead to a twisted pair feeder. The spacing between transformer rods is 3 inches.

Directional Antennas

In areas remote from a transmitting station signal strength will usually be low. Over a distance of 40 to 50 miles signals may be returned to "local strength" by use of a multi-element beam antenna. Field patterns shown in all drawings are not to scale but serve only to indicate comparative pattern shape. However, the sharpness of the pattern in each case is an indication of antenna gain.

Referring to Fig. 7, placing a reflector in back of any of the antennas described previously "distorts" the field in a desired direction, giving a kidney-shaped pattern. Compare this to the uniform pattern of a vertical antenna shown by the broken line. It can be seen that antenna gain in one direction results when the field in the undesired direction is pushed forward.

It is also possible to increase antenna directivity by adding a director to the antenna-reflector system. Fig. 8 shows this method. It will be noted that the field pattern is slightly sharper and extends further to the right.

An elaboration of Figs. 7 and 8 is the "Yagi" beam. (Fig. 9). The spacing between the side reflectors is greater than normal reflector spacing. These limit side radiation, considerably sharpening the beam. A sizeable antenna gain, as indicated by the field pattern shape, can be had from a system of this type.

The phased antenna of Fig. 10 is a popular high frequency beam. Consisting of two half wave antennas fed by a simple phasing system, the resulting

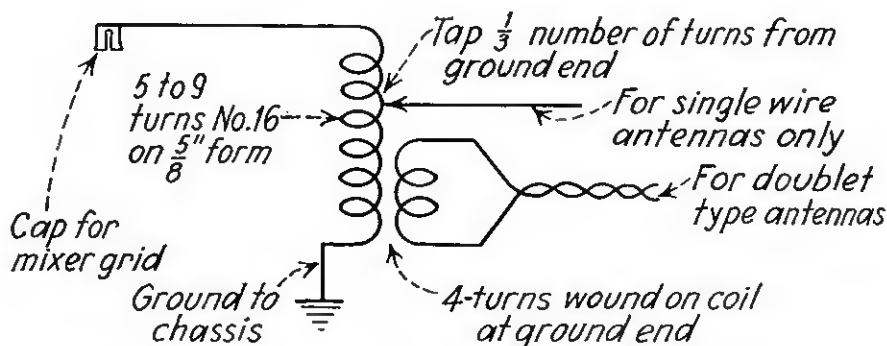


Fig. 13—Simple converter coil for adapting all-wave superhets for ultra high frequency reception

field pattern forms an elongated figure eight. The phasing system for feeding this antenna will be described later.

Combining the principle of Fig. 10 with that of Fig. 7 gives what is known as a Broadside beam (Fig. 11). The reflectors reduce the back radiation of Fig. 10, giving a sharp, unidirectional pattern.

Feeding the antennas of Figs. 10 and 11 may be accomplished as shown in Fig. 12. Antennas are connected by a two wire open feeder constructed of

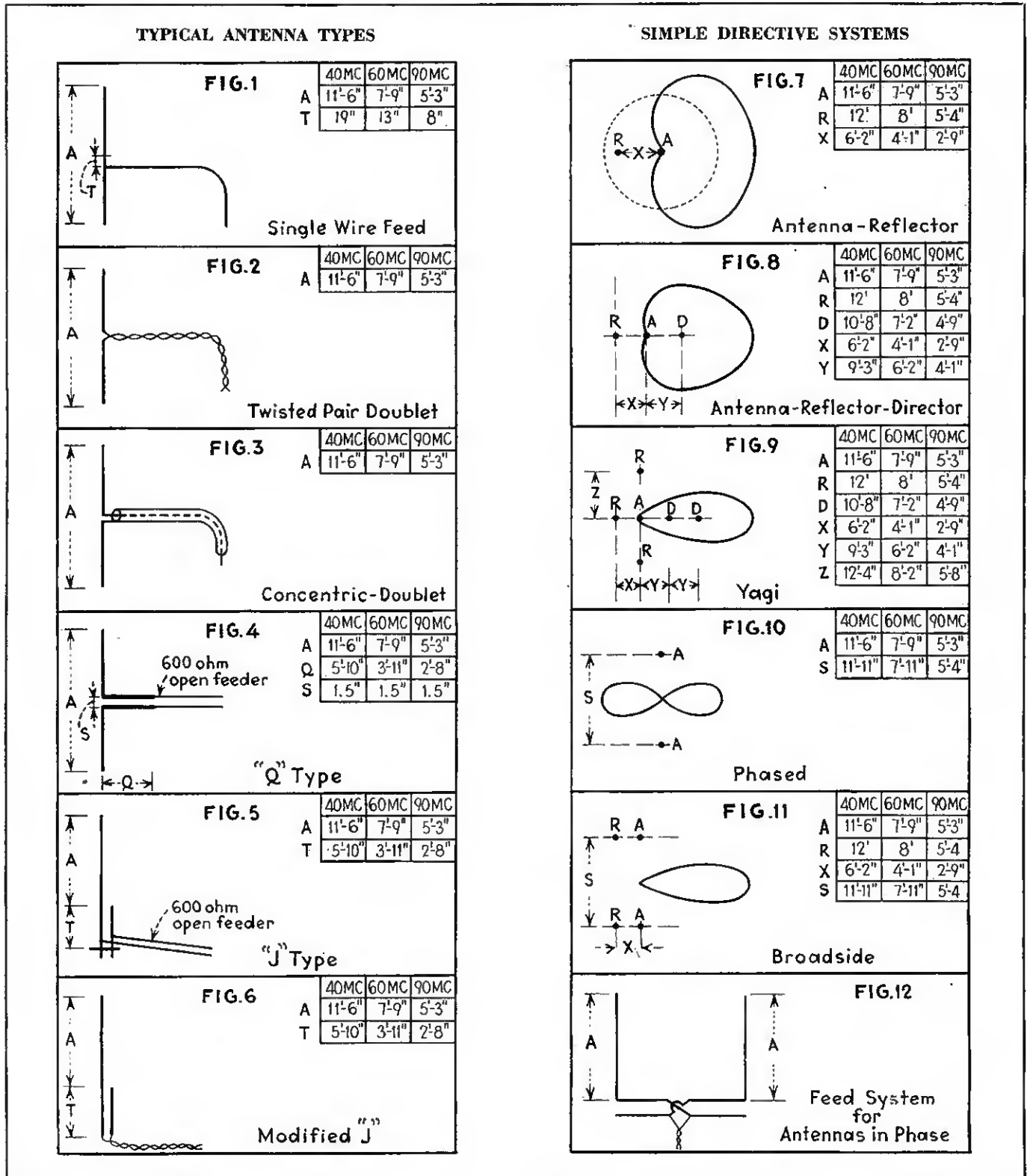
number 14 wire spaced 3 inches. The feeder is transposed at the center; one end of one feed wire connects to the bottom of one antenna, the opposite end of the other feed wire connects to the other antenna.

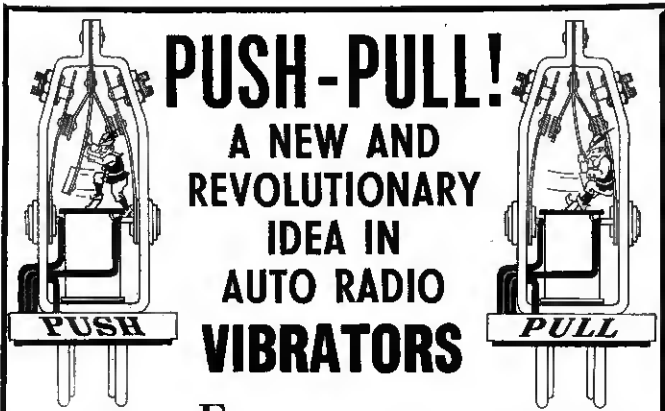
Ultra High Adapter

Experimenters who wish to try their hand at ultra highs will be interested in the circuit of Fig. 13. By shunting a small coil from mixer grid to ground on almost any allwave superhet

that tunes to 20 or 30 mc. ultra high signals may be received. The second harmonic of the set oscillator will beat with the incoming signal, forming the correct i.f. frequency. The grid clip of the adapter replaces the regular mixer grid clip in the set.

Dimensions of the coil will vary from 5 to 9 turns of number 16 wire on a $\frac{3}{8}$ -inch form for different receivers. By carefully adjusting the number of turns and spacing between turns, sensitivity may be improved.





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A NEW AND REVOLUTIONARY IDEA IN AUTO RADIO VIBRATORS

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- ★ 50% Less R. F. Interference
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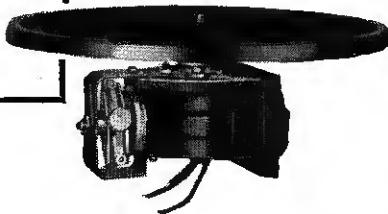
NOW—after months of experimenting and testing we are starting production on a new and radically different type of vibrator. This new and outstanding product—The De Luxe Push-Pull James Vibrapowr Unit—embodies principles of design and construction never before used in any auto radio vibrator. The benefits of this advanced vibrator circuit are numerous.

DE LUXE Push-Pull James Vibrapowr Units list at \$3.95 for the non-synchronous types. Twenty different models are now available. Never before has such an outstanding value been offered. The consumer benefits by the improved performance of his auto radio receiver—jobbers and dealers benefit by the increased margin of profit. Don't fail to investigate our proposition at once. Your inquiry will bring you complete details regarding our discounts, plan of selling and a technical description of the operation of the unit. The standard line of James Vibrapowr Units list at \$2.95 for the non-synchronous types.

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EQUIP your radio-phonographs with General Industries FLYER Motors—get their double-barrel sales help in low cost and high service. Their low cost enables you to go after popular-price business. At the same time you can just as profitably show these motors and demonstrate their silent running and superbly accurate speed, giving highest fidelity of reproduction. Range of choice meets all demands. In ordering sample motors, be sure to specify whether AC or Universal AC-DC, also give exact voltage and frequency of current you use.

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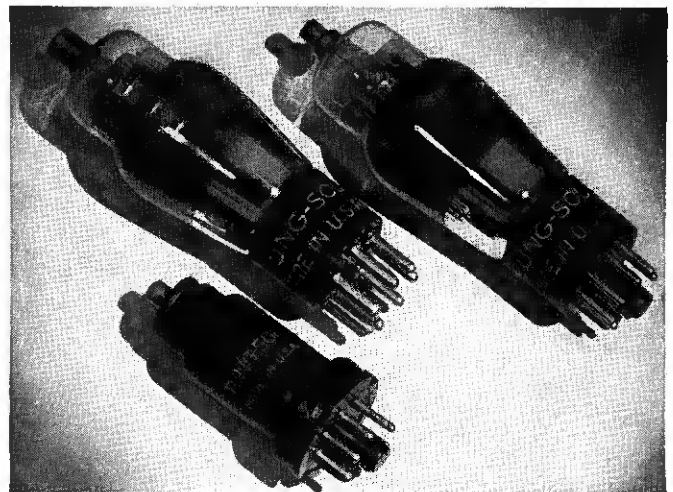
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If you can answer "Yes" to these questions, Tung-Sol has a Consignment Plan that will show you better and quicker tube profit than you ever thought possible.

Look the questions over—and if your answers are "Yes"—WRITE TODAY for name of your nearest wholesaler. Dept. B.



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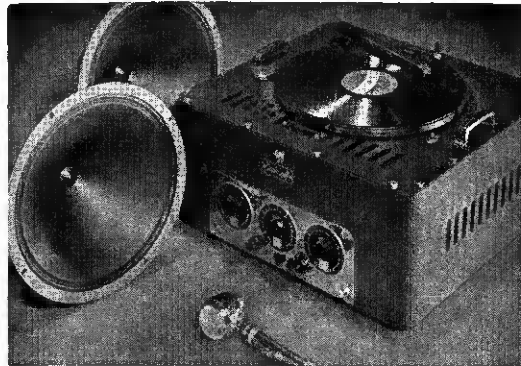
Now! Better than ever! Each MEISSNER ELECTRONIC vibrator is AGED and life-tested TWICE —to give you even greater dependability and operating efficiency than ever before.

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Make your next vibrator replacement a Meissner! Your parts jobber sells them.

Meissner Meissner Mfg. Co.
Mt. Carmel, Ill.

"A FAMOUS NAME FOR TWO DECADES"



Manufactured under license arrangement with E. R. P. I.

**MOBILE COMBINATION UNIT
24 Watt Phono and P. A. System**

For 6 volt D.C. or 110 volt A.C. operation. No power packs to interchange. 24 watts output. Two 12" auditorium type permanent magnet speakers reduce battery drain when operated on D.C. Three input channels—two for microphone—one for phono. Beam power output tubes. Bass and treble compensating controls reduce feedback to a minimum. Plug-in type crystal microphone permits easy adaptation to pedestal or other type stands. Modern in appearance, easily portable, easy to service and built to Bell's usual high standards of quality. Model M-24 is a truly modern, reasonably priced Mobile System.

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Bell manufactures a complete line of sound equipment. They are built in types and capacities to meet every need. Write for complete details.

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Dealers! Cash in on quick sales and profitable rentals. Write for information on Bell's attractive proposition to you. Do it today!

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Let us tell you more about Bell's new interoffice communicating system. It sells on demonstration. Various models for any need.

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Export Office: 308 W. Washington St., Chicago, Ill.

**NEW!
Model CC**

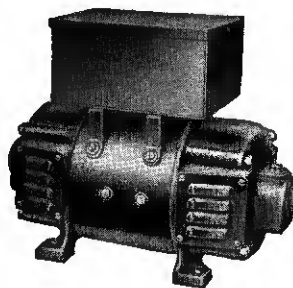
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CAPACITOR ANALYZER

This advanced new model has all the good features of our famous CB model . . . PLUS high capacity scale, high test voltage, simplified scales and sloping panel. A.C. operated. Illustrated model, No. CC-1-60, for 110 volts, 60 cycles operation, less tubes, costs \$24.90 Net . . . through your jobber.

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Janette Rotary Converters



For Converting D.C. to A.C.

Built for radio and sound apparatus—capacities 110 to 3250 volt amperes—with or without all wave filters. Dynamotor construction—economical to operate—ruggedly built for years of trouble-free service—used or recommended by the largest manufacturers of radio and sound apparatus—in use all over the world.

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INSIST ON A JANETTE**

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Janette Manufacturing Company
556-558 West Monroe Street, Chicago, Ill. U.S.A.

Boost PROFITS with this
New WARD AERIAL

Here's the aerial you've wanted! WARDS new Model CO, a 2-section, telescopic, hinge-type aerial sells for only \$1.95 complete with 40" approved Low Loss Shielded Lead Cable! Made of Admiralty metal Easy-Tilt mounting bracket. Easily installed.



FREE!

See what's new for Fall in WARD'S complete line of car aerials. Write today for free catalog.

The WARD PRODUCTS Corp.
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TELEVISION TEST



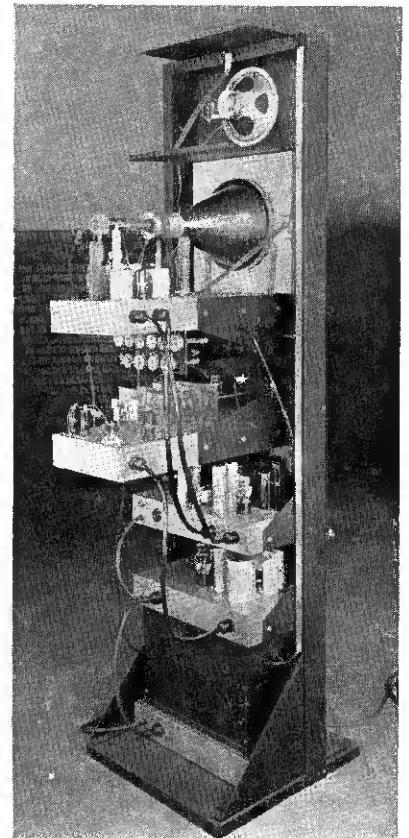
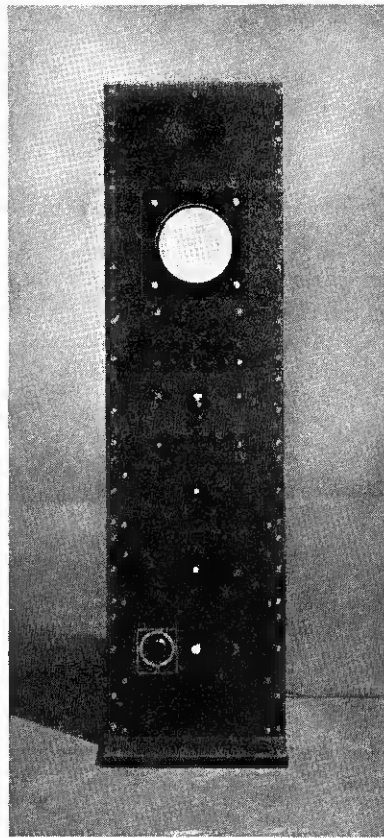
FIRST BROADWAY PLAY—Tuning in on NBC's Empire State W2XBS (46.5 mc.) at 4 p.m., June 7, this is the cathode-ray screen pattern that greeted us. We aimed the staff camera, shot it and other pictures.



"SUSAN AND GOD"—Next, producer John Golden appeared, talked. His is the honor: First producer of a current Great White Way play to have it televised, moving props and performers to the experimental studios.

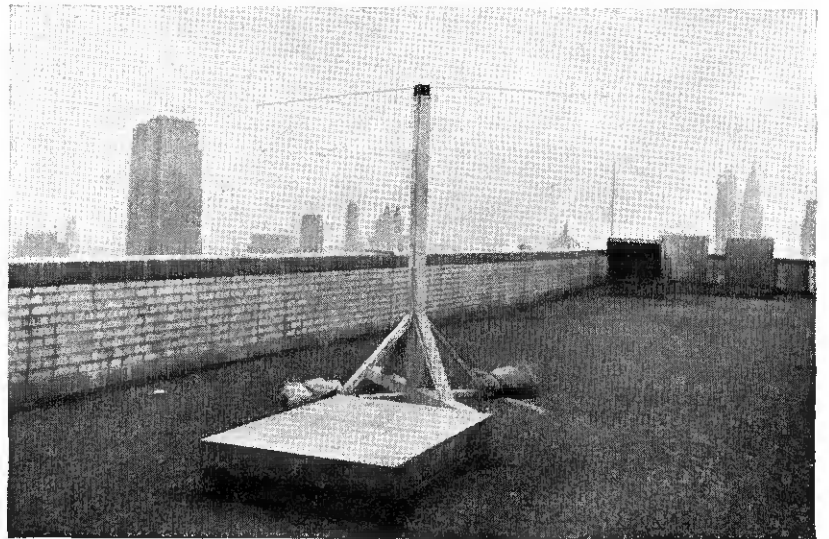


TELEVISED DRAMA—Gertrude Lawrence (left) as Susan and Nancy Coleman as her daughter, do their stuff for the benefit of distant engineers . . . and experimenters like ourselves.



RECEIVER—Chassis, starting from the top: Monitor speaker, cathode ray tube and associated equipment, definition controls for tube, combined audio and video receiver, power supply, line voltage control. (Right) Back view. Note complete enclosure for 5,000 volt powerpack at bottom

ANTENNA—Halfwave horizontal doublet, high up on New York's skyline



RR is READY

Not likely to be caught napping when Television eventually "breaks" commercially are Radio Retailing's editors.

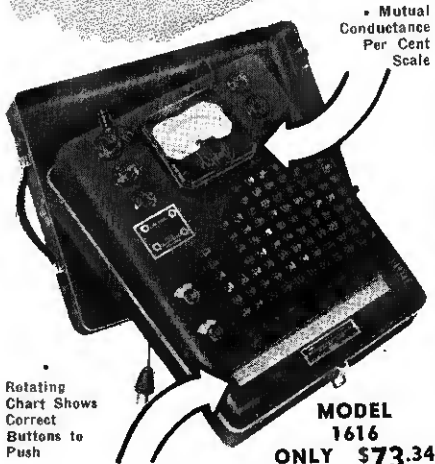
In the tower of the McGraw-Hill Building is the receiver illustrated on this page, designed and built by the enterprising editors of this publisher's engineering paper "Electronics".

We've watched every step in the receiver's assembly, naturally have access to it for practical experiments out of which technical articles will come whenever actual sale of equipment gives such articles genuine value for the servicer.

TRICKS

TRIPLET
The HIT OF THE SHOW
Simplified

PUSH-BUTTON TESTING



DYNAMIC MUTUAL CONDUCTANCE

Tube Tester and Volt-Ohm-Milliammeter

Many Claim Dynamic Mutual Conductance . . . Triplet Positively Has It.

The hit of the Radio Parts Trade Show was this pace setting push-button tester by Triplet, with its revolutionary advancements. After rotating chart to the tube to be tested, the button to push is clearly marked under each row. What could be simpler?

And the Dynamic Mutual Conductance test for amplifiers and power tubes not only shows if the tube is GOOD or BAD, but the percentage of mu to the 100% Good Condition also is indicated. In critical sets this permits the dealer to pick his tubes with confidence . . . Diodes and rectifiers are tested for emission according to the latest approved engineering standards. Gas and Ballast tube test included.

Filament location switch permits application of filament voltages to any prongs of the tube. The same is true for plate location, screen location, e.g. location, etc. This selective feature, together with a spare socket, is an anti-obsolescence factor.

Rotate chart to Volt-Ohm-Milliammeter settings—push button for D.C. scales: 0-10-50-250-500-1000 Volts at 1000 Ohms per Volt; 0-10-50-250 M.A.; .2 Ohms to 500 Ohms—300,000 Ohms—1½ Megohms—3 Megohms; 0-10-50-250-500-1000 A.C. Volts at 400 Ohms per Volt; decibel chart furnished to 42 db's. (Ohmmeter is line powered and provision is made for using batteries if desired). Uses two inter-changeable plug-in type rectifiers, simplifying replacement in case of unintentional damage. One is in the tube tester circuit, the other for the Volt-Ohm-Milliammeter.

Furnished in attractive, all-metal case with lustrous finish. Removable cover for portable or counter use . . . sloping panel.

Model 1615—Dynamic Mutual Conductance Tube Tester only with Push-Button testing. DEALER PRICE . . . \$63.34

Model 1610—True Emission Type Tube Tester with Push-Button Testing. DEALER PRICE . . . \$39.00

Model 1611—True Emission Type Tube Tester with Push-Button Testing and Volt-Ohm-Milliammeter. DEALER PRICE . . . \$49.50

SEE IT AT YOUR JOBBERS—OR WRITE

FREE—8 pp. two-color catalog listing today's most complete line of test equipment.

The Triplet Electrical Instrument Co.
 207 Harmon Dr., Bluffton, Ohio

Please send me more information on

Model 1616 Model 1615
 Model 1610 Model 1611

Name

Address

City State

ARVIN MODEL 6

Serial 85001 to 86001. Oscillation between 1100 and 1500 kv . . . this condition may be remedied by placing a 20,000 ohm ¼ watt resistor in the B plus lead to the oscillator. Also, connect a .002 mfd condenser from the B plus lug of the oscillator coil to ground.

BRUNSWICK 11, 12, 16, 23

Fading, poor selectivity or sensitivity . . . Tighten screw fastening 10 mmf mica coupling condenser to stator section of first detector condenser.

ATWATER KENT MODEL Q

Audio howl . . . shunt the secondary of the first a.f. transformer with 100,000 ohms, also the secondary on the push-pull input with 150,000 ohms.

CROSLY FIVER

Noisy when jarred . . . improper ground connections on the tuning condenser rotor. Ground with a small piece of flexible wire.

CROSLY 102

Intermittent . . . broken or loose lead from r.f. transformer to gang condenser. Condenser is mounted on rubber and is permitted some movement breaking the lead. Replace lead but leave long enough to permit condenser movement.

CROSLY 517

Distortion . . . In these sets the 16 mfd filter is insulated from the chassis by fiber washers. Since the condenser is in the rear of the chassis it is often used for lifting the chassis, throwing the electrolytic can off center and shorting to chassis.

EVERYREADY 42, 43, 44

Weak and distorted . . . cathode resistor for 27 tube in first audio stage likely open. Value 1750 ohms. One-watt rating of replacement sufficient despite higher wattage of original.

No control of volume . . . sure indication of open in 3,500 ohm resistor which bleeds current through volume control from point where r.f. tubes obtain plate voltage. Use 10-watt replacement.

GE 51, RCA 118, 211

Intermittent hum . . . replace .05 mfd condenser coupling 6B7 grid to volume control.

GE C60

Some of these auto sets have leads brought out to five lugs on the antenna coil, one is unused. If antenna trimmer has no effect and noise level is high, connect grid lead from variable condenser to vacant lug instead of original connection so that all of the secondary is used.

GE 61M, RCA 129

"B" band dead . . . hold soldering iron close to, but not touching coil winding until wax melts and flows. Retouch all lugs on coil with soldering tip. Allow to cool and realign.

GENERAL MOTORS 251

To prevent cross modulation on strong signals install a shielded lead from the antenna post to antenna coil. Also switch the lead from the antenna coil to the lug next to the coil, using the former lug to connect to the oscillator condenser.

GREBE 5K4

Intermittent, fading, cuts out when dx switch is snapped . . . replace detector grid return bypass. Also replace 3 meg series resistor with 1.5 meg and clean phono-switch contacts. This is operated by the condenser gang when in the high frequency position.

GREBE SK4

Fading on locals during the first few minutes of warm-up . . . check 24 tubes for gas.

GULBRANSEN 200

Weak, fading . . . solder all riveted leads on power transformer terminal plate.

KADETTE K634

Present wave trap is not sufficient to stop code interference. Disconnect wave trap entirely and connect it's coil in series with red wire from band switch to antenna coil. Connect it's trimmer directly across trap coil.

KOLSTER K-21

Howls when turned on . . . remove extra green lead connected to the grid of the first a.f. tube. To greatly improve sensitivity, remove the grid suppressor on the 3 r.f. tube. This is the only one that can be removed without oscillation.

TRICKS

PHILCO 16X

Intermittent fading . . . secondary of first r.f. transformer has high resistance connection.

PHILCO 19

Dead . . . check 15,000 $\frac{1}{2}$ watt resistor on the condenser block. Replace with 1 watt unit.

PHILCO 70

Howling . . . caused by vibration of condenser plates due to dried rubber mountings under condenser. If the rubbers cannot be removed easily a simple remedy is to float the chassis from the cabinet by placing rubber grommets under the chassis.

PHILCO 84

Impossible to turn volume off on locals . . . shield first detector tube. If still troublesome shield grid lead.

PHILCO 84

Loud hum . . . check rivet that holds 42 socket, lug from 42 cathode grounding on rivet.

PHILCO 89B

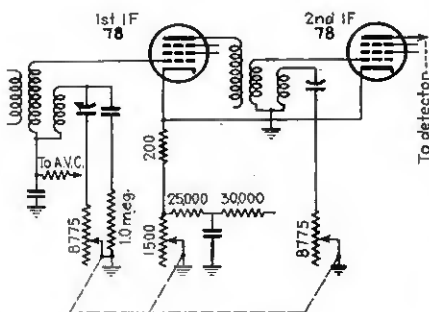
Poor tone, intermittent reception . . . section of part No 7 in 75 detector plate leaky or bad.

PHILCO 200, 201

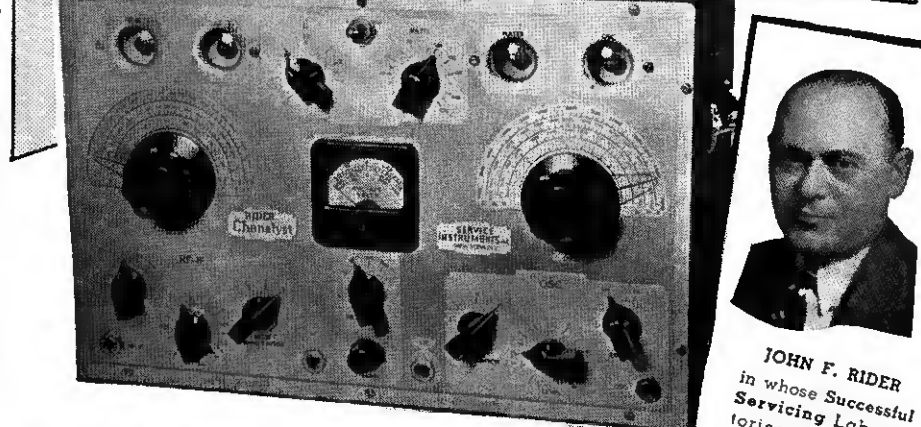
While replacing a defective fidelity control in this set a peculiar case of trouble was experienced. The control is a three-section wire-wound variable resistor, having one section of 1500 ohms and two sections of 8775 ohms each. The sections are insulated from each other and arranged so to be controlled by a common shaft. This is shown in the drawing.

In the original control, the part number is 33-5083. The replacement chart specifies part number 33-5103 as the correct replacement. (33-5083 evidently being discontinued.)

Upon installing the new control trouble was encountered. Instead of



Announcing the RIDER Chanalyst



JOHN F. RIDER
in whose Successful Servicing Laboratories this revolutionary instrument was developed.

The Greatest Advance Ever Made in the History of Servicing Instruments

Because the Rider Chanalyst is of fundamental design it makes possible, for the first time, receiver testing under theoretically ideal conditions! It enables you to localize troubles in a particular stage or part of a receiver or amplifier with greater speed and more efficiency than ever before, no matter how complicated the circuit and regardless of the number or types of tubes.

Testing with the Chanalyst is done without the use of adaptors or plugs! With the Chanalyst, any serviceman can apply a standard, systematic, time-saving routine of servicing to his work. Its applications are so numerous it is impossible to list them all here. Following are a few of the major tests which you can conduct with the Chanalyst **WHILE THE RECEIVER IS IN NORMAL OPERATION:**

1 Trace passage of signal through receiver from antenna to speaker in r-f, i-f or a-f stages, enabling you to establish points where signal exists, dies, becomes weakened or distorted and where it takes on hum.

- 2** Check actual operating voltages at any point in the receiver without loading the circuit.
- 3** Accurately check actual control voltages developed by the signal and present at the tube elements—also without interfering with the normal operation of the receiver.
- 4** Check frequency output of the oscillator section in a superheterodyne.
- 5** Instantly check wattage consumption of the receiver during actual operation.
- 6** Quickly locate troubles in intermittent receivers.

The test channels available in the Rider Chanalyst provide a means of separating a complete receiver into five basic sections. Each of these sections has its own indicator. When an intermittent condition develops, the indicators show the presence or absence of the signal in the various sections—the change in wattage consumption and operating voltage—if any. By interpreting the indications—you can localize the fault as being in a certain part.

These are but a few of the many uses for the RIDER CHANALYST—send today for explanations of this remarkable—essential—basic—new instrument!

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SEND TODAY FOR FREE BOOKLET ON THE RIDER CHANALYST WHAT IT IS—WHAT IT DOES—HOW IT WORKS!

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Name.....
Address.....

7 NEW PRODUCTS by IRC



All Metal RESIST-O-CABINET

A sturdy, good-looking 28-gauge ALL METAL chest of drawers, large enough to contain a complete stock of resistors and other small parts—and it costs you not one cent extra! All you pay for are the 59 popular range IRC Resistors it contains (List value \$15.16). The Resist-O-Cabinet is included with your purchase. Chest is 11" long by 5½" deep and 5½" high. Four large, all-metal drawers have metal partitions providing 28 compartments. The bottom is flanged so that they stack nicely one on top of the other.

ATTENUATOR (Commutator Type)

A new and radically different design with a noise level lower than can be accurately measured. This extremely low noise level is maintained in actual service. Step potentiometer and ladder types available.

L-PAD and T-PAD ATTENUATORS

Adaptations of famous IRC Type CS Dual and Triple Controls with the Silent Spiral Connector and 5-Finger Silent Element Connector. Special curves make them unexcelled for inexpensive sound equipment.

NON-INDUCTIVE WOUND RESISTORS

Standard IRC Cement Coated 50, 100 and 200 Watt Resistors now available non-inductively wound by the Ayrton-Perry method. Also a new 10 watt 50 ohm Parasitic Suppressor for audio driver or power amplifier tubes.

HIGH FREQUENCY RESISTORS

Power type metallized resistors with a flat frequency characteristic for use at ultra high frequencies. Just the thing as terminating resistors for obtaining maximum gain in a given direction with a Rhombic Antenna. The closest approach to a pure resistance available commercially.

UNIVERSAL BLEEDER RESISTORS

Type M-1034, 25,000 ohms. Universal as bleeder and bias resistor for any power supply in receiver or transmitter up to 500 volts. Taps for biasing one, two or three tubes.

25 WATT All Metal RHEOSTATS

More Watts Per Dollar!

Through utilization of the efficient heat dissipating qualities of aluminum, IRC has engineered a 25 watt ALL METAL Rheostat (Type PR-25) no larger in size than conventional types, yet with approximately one half the temperature rise at full load. Actual temperature rise, for full rotation, is only 140° C. measured at the hottest spot. In addition, due to highly efficient heat conduction, the full 25 watts may be applied across ¼ of the winding area with only 160° C. rise at the hottest spot.

Made in a complete line from 0.5 ohm to 5,000 ohms at standard list prices. Write for Catalog No. 128 for complete details on new products.



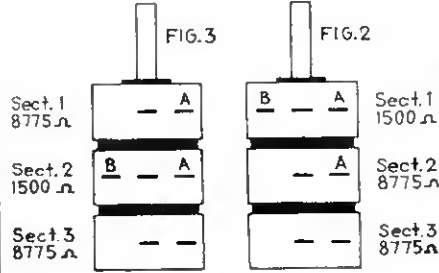
INTERNATIONAL RESISTANCE CO.
401 N. Broad St., Phila., Pa.

TRICKS

operating like a fidelity control, the replacement part acted like a volume control.

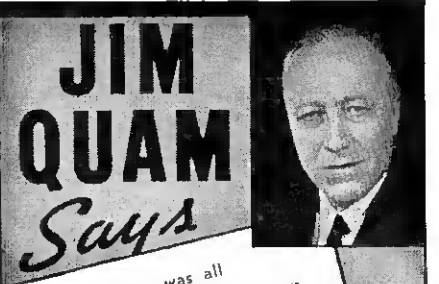
The explanation is this: the fidelity control circuit for this set is shown in Fig. 1. Notice that the 1500 ohm section of the control is in the cathode circuit of the first and second i.f. tubes, in series with the 200 ohm resistor which provides the fixed bias. The two 8775 ohm sections are connected to the tertiary windings of the first and second i.f. stages respectively. On the original control (33-5083) the arrangement of the sections is as shown in Figure 2. In the replacement control (33-5103) the sections are arranged as shown in Figure 3. Comparison of the two figures will show that the 1500 ohm section is located differently in the replacement control, than it is in the original. It is this difference of construction which causes the unwanted volume control action, because if customary repair procedure is followed in replacing each wire in its original position, instead of having a 1500 resistance in the cathode circuit, we will have 8775 ohms. As the control shaft is rotated the bias on the 78 i.f. tubes will gradually be increased to a value which will make the tubes inoperative.

In order to obtain the correct replacement for 33-5083 it is merely necessary to transpose the wiring on sections 1 and 2. The control will then operate properly. Put the single wire, lug A section 1, on lug A, section 2. Put the two leads from lug A section 2, on lug A section 1. Lug B is blank on both controls.



PHILCO 221, 221A, 21, 21A
Dead; sometimes distorted, tunes sharply . . . replace Cathode bias resistor of 24A detector with 200 ohm 2 watt carbon.

PHILCO 620
No reception . . . test condenser bypassing plate supply of 75 second detector for short. Unit is housed in bakelite container, one lead being connected to juncture of 70,000 and 99,000 ohms resistors, other lead to chassis through screw holding unit to chassis. Though capacity value varies in different runs, 0.1 mfd. replacement is okeh in most cases.



That Parts Show was all right. I don't believe I've missed one since the business first began, but there were more people in our booth this year than ever before. I guess that comes from making an honest product and selling it at a price that makes the fellow who buys it rich instead of just the fellow who makes it.

We had a lot of compliments on that big 12-inch P.M. Dynamic. That one was in the laboratory a long time before we brought it out. But it is a peach. It really "comes through" on a big P.A. job, and that's where the quality of a speaker really shows up.

QUAM-NICHOLS CO.
33rd Place & Cottage Grove CHICAGO 1674 Broadway NEW YORK



SELL CROWE

Remote Controls for Auto Radios

INTERCHANGEABLE ALL CARS! MOST RADIOS!

Crowe Controls are interchangeable for all cars and most makes of radios. Air-plane or porthole dials make it easy to exactly match manufacturer's car styling. Easy to install. Economical to stock. Standard equipment on leading makes of radios.

SELL CROWE CONTROLS

Sell Crowe Controls to reinstall still-serviceable radios in new cars. Sell them to replace old-fashioned under-dash or steering column controls on owners' present cars.

SEE YOUR JOBBER

Go after your share of this replacement business. Get a stock of Crowe Controls from your jobber.

ASK FOR BULLETIN

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

TRICKS

SPARTON 333

Spurious oscillations at high frequency end of dial . . . Replace 50,000 ohm oscillator grid leak connected from grid to cathode of socket with 1 watt 40,000 ohms. Original unit has increased valve causing oscillator to super-regenerate.

STEWART WARNER 102

Weak, distorted . . . check for open or shorted .1 mfd condenser connected between the purple and yellow resistors on the resistor strip.

STEWART WARNER 900

Serious intermittent fading in this model is usually caused by the .25 mfd rf. cathode bypass condenser. This is the green lead in the condenser block.

STROMBERG-CARLSON 38, 39, 40, 41

Weak reception, loud station hiss . . . if condition clears up when a finger is placed on the grip cap of the 58 first r.f. suspect the preselector coil for open or short to metal shielding.

STROMBERG 48, 49

Dial slips . . . caused by the U washers on the friction drive mechanism binding to the shaft opening of the cabinet. To remedy: raise front of chassis slightly and insert thin rubber strip between chassis and wooden chassis support.

STROMBERG 48, 49, 50, 51

Dead, tubes and voltages check O.K. . . . defective 500,000 ohm $\frac{1}{2}$ watt resistor in the plate circuit of the 55 second detector.

WELLS GARDNER 2DL, AIRLINE 62-413

Intermittent crackling . . . defective contact in Candohm resistance containing bias for ave and audio tubes. Resistance of this section is 156.5 ohms.

WESTINGHOUSE U6F

Distortion . . . check .01 mfd 200 volt coupling condenser for high resistance leakage (about 20 meg.)

ZENITH '37

Scratchy noise on tuning flywheel models . . . flywheel not making proper ground at end of shaft. Tighten spring at end of shaft by moving pulley towards center; oil.

ZENITH 41, 42, 422

Noisy, fading . . . check local-distance switch for poor internal contact. This connects to a .00025 mfd condenser in the antenna circuit.

LOOK, MR. SERVICEMAN!

★ **CHAPTERS in 40 CITIES**
 ★ **MEMBERS in EVERY STATE**
 ★ **and in ALL PARTS of the WORLD**
 - - *That's the Record of the RSA*
in only 6 Months!

More and more, Servicemen have come to realize that it pays to belong—that the RSA is the one big constructive and progressive organization of Servicemen for Servicemen—that it is genuinely and actively helping every member.

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(Material and Service that's Worth \$75 and More)

YOU become eligible for participation in the Advanced Extension Course for Professional Servicemen—available to RSA Members only. ★ YOU GET monthly Advertising and Business Promotion ideas to increase your business and make it more profitable. ★ YOU GET a subscription to "The Radio Serviceman"—the Association's monthly magazine. ★ YOU GET the benefits of being included as a "REGISTERED AND QUALIFIED SERVICEMAN" on record at National Headquarters for reference. ★ YOU GET a Certificate of Merit to hang in your shop. ★ YOU GET a pocket card of credentials. ★ YOU GET the assistance of our big expert technical staff as a department in your service business. We will give you the *right* answer to your "impossible" service problems. ★ YOU GET (if you belong to a local servicemen's group) access to our National Speakers' Bureau—famous speakers for your meetings. ★ YOU GET advance technical information on new circuits.

It's as important to you as your job or your business! JOIN NOW and get in on all its benefits.

RADIO SERVICEMEN OF AMERICA, INC.

Joe Marty, Jr., Executive Sec'y, 304 S. Dearborn St., Chicago

MAIL THIS COUPON

RADIO SERVICEMEN OF AMERICA, INC.
 304 South Dearborn St., Chicago, Ill.

Gentlemen:

I hereby make application for membership in the Radio Servicemen of America.

Name

Home Address

City State

Firm Name

Address

..... I am enclosing \$2.00 National Yearly Dues.

(Plus Nominal Local Chapter Dues)

..... Bill me \$2.00 National Yearly Dues.

BIGGER AND BETTER THAN EVER AND STILL

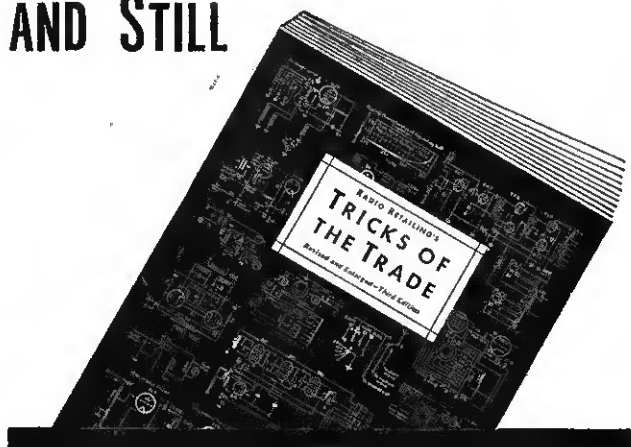
FREE

TO RADIO DEALERS AND SERVICEMEN!

3rd Revised Edition of

"TRICKS OF THE TRADE"

Contains accurate answers to 956 set troubles
— 11 reference charts — 24 auto circuits



SAVES YOUR TIME! SAVES YOUR MONEY! ENDS SET WORRIES!

HUNDREDS of radio men are using this unequalled, trouble-shooting guide to take the "bugs" out of their toughest repair jobs and pour EXTRA profits into their service work. Already in its third edition, "Tricks of the Trade" has really clicked. But it should. It contains not one bit of useless data, no waste descriptions, no theories, no help for fans or amateurs. Every one of its 76 pages is packed with practical, "how to" information that answers the questions on set troubles that crop up in your work every day.

"Tricks of the Trade" is one service book that is different. Once you have had a copy you won't part with it for a minute. I know many men who consider it more valuable than their tool kit. This one, new edition contains:

- 956 tested ways of finding and fixing the troubles common to specific makes and models.
- 102 tube socket diagrams showing the connections for more than that many types of new tubes.
- Valuable reference charts showing—why service can't be cheap—types of auto aerials—analysis of common set troubles—24 automobile ignition circuits—why servicemen charge for inspection—and others.
- Why are these "Tricks" good? Because every one of them came right from the actual

experience of professional radio experts. (See typical examples in column to right of page.) Why spend hours of your time testing and re-testing a balky circuit, when, with this new book, you can put your finger on the most probable cause of the trouble in a few seconds.

● These "Tricks" will show you how to spot a lot of set troubles that don't show up in any circuit tests you make. If your time is worth money and you like to duck plenty of grief—get yourself a copy of "Tricks of the Trade"—today. **IT IS FREE IF YOU ACCEPT THIS OFFER NOW.**

HOW YOU CAN GET THIS VALUABLE BOOK FREE

- Simply fill in and return the order blank below with the subscription fee to cover one year of Radio Retailing for \$1 or three years for the reduced rate of \$2. The new editions of "Tricks of the Trade" is included as our gift.
- This book is not for sale separately. Credit orders cannot be accepted. Be sure to enclose remittance with your subscription order. ACT NOW. This new edition is going fast. Don't be sorry. Do it today.

Time-Saving Information

Certain radio sets develop troubles peculiar to their particular type of circuit. Each month "Tricks of the Trade" explains how to locate and fix specific set failures. The following are examples of the curt, practical way Radio Retailing offers this vital information to you.

BREMER-TULLY, BRUNSWICK 88

Bad volume control . . . Often due to fibre projecting too high, causing rotor arm to miss. Push fibre down before replacing control.

CLARION 60, 61

Set dead or very scratchy . . . Look for failure of special audio input transformer primary. Replace with same device or substitute resistance coupling. Tone will suffer if ordinary transformer is used for replacement due to special characteristics of original.

CROSLLEY 143

Neon pilot lights when set switch is in OFF position . . . Replace leaky 8 mike, 150 volt condenser.

MOTOROLA 77

Poor tone . . . Check to see if voice-coil or field wires have been reversed. This causes voice-coil form to become blackened and charred inside due to heat. If swollen, discolored appearance is noted replace.

RCA 120

Operates at low volume on strong signals, intermittently comes up to good volume . . . Check .05 condenser between center terminal of volume control and control grid lead of 2B7 second detector.

Every issue of Radio Retailing will bring you more of these "Tricks". File them and in a short time with this FREE book you'll have a service manual of un-equalled value.

Mail this coupon and payment—Today!

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PRESENT SUBSCRIBERS NOTICE

Present subscribers may obtain a copy of this FREE book by renewing their present subscription. Regardless of when your present subscription expires, you must send in another PREPAID renewal order. Your subscription will be extended for additional time without duplication. No previous renewal orders count. We must show a matching order for every book sent out. Mail in your order and payment today.

This offer only applies to U. S. and possessions, Canada, Mexico and Central and South America. All other countries add 50c to foreign rate of \$2 a year to cover postage charges on book.

All books are sent out by express to insure safe delivery. There is a small handling charge of 50c—payable to the expressman upon delivery of the book. If you prefer book sent prepaid, add 15c to the subscription fee at time of ordering.

O. K. Attached is \$2 for a 3 year subscription to Radio Retailing. With this order I am to get a FREE copy of the 76-page service book—"Tricks of the Trade". I'll pay the expressman 15c for delivery charges. Send the book at once. Check here if this is renewal order.

Name..... Position.....
Street.....
City..... State.....
Our Main Business Is.....

Check here and remit \$1 if you wish only one year subscription PLUS FREE book. 7-38

No orders accepted without payment attached

RADIO RETAILING
330 West 42nd Street
New York, N. Y.

This offer expires after October 1st, 1938

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\$1 or \$2
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SEARCHLIGHT SECTION

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RADIO CHAIN STORE MANAGER, experienced, successful, sales promotions, credits, collections. Salary secondary, work anywhere. Joseph Morrison, 95 Fifth Avenue, New York.

WANTED!

1938 Nationally-Advertised Radios at Close-Out Prices.
State quantity, price, model number, Enclose photos. All replies confidential. address
W-129, Radio Retailing
520 No. Michigan Ave., Chicago, Ill.

RADIO IN IT'S ENTIRETY!

"B-A" serves the trade with every need in radio—complete 180-page catalog of nationally known radio receivers, public address, parts, supplies and equipment. Orders shipped same day received.

COMPLETE CATALOG AVAILABLE

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



OVER 10,000 PARTS

FOR VACUUM CLEANERS AND WASHING MACHINES

24-HOUR SERVICE!

Attach this "Ad" to Your Inquiry and Receive "Special Inventory Reduction Price Sheet" Manufacturers Factory Representatives
MIDWEST APPLIANCE PARTS CO.
2722 W. Division St. CHICAGO, ILL.

To make room for

our newly patented SOUND-ON-FILM-INSTANTANEOUS RECORDER-REPRODUCER line of "FILMOGRAPHS" used for home. "TALKIES", correcting speech impediments, dictation in offices, industrial and general commercial work or straight recording of VOICE AND MUSIC.

WE ARE CLOSING OUT

our complete line of AMPLIFIERS, speakers, HORNS, MICROPHONES, INTER-OFFICE COMMUNICATORS.

SEND FOR BARGAIN BULLETIN TO

MILES REPRODUCER CO., INC.

Dept RR, 812 BROADWAY, NEW YORK, N. Y.

Here is the Most Complete Radio BUYING GUIDE!

● The new 1939 Radolek Radio Profit Guide contains complete showings of Radio Repair Parts, Radio Receivers, Public Address Amplifiers, Speakers, Microphones, Service Test Instruments, Radio Technical Books, Special Radio Tools. Leading Standard Brands! Everything you will ever need in the Radio Business all at Lowest Prices. You save money at Radolek!

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RADOLEK

601 W. Randolph St., Dept., A-21, CHICAGO

Name

Address

Serviceman? Dealer? Experimenter?

Send for Your FREE Copy Now!

Audio Frequency...

With 1.4 Volt Tubes?

A lot of people out in the "sticks" turn radios on only long enough to get market or weather reports and don't play them for extended periods. Upkeep cost, I understand, is one of the things that holds back sales in farming sections. So why don't some set manufacturer turn out a model incorporating a small generator supplying both "A" and "B" current, *operating this generator from a built-in spring-wound motor* like those used in phonographs?

The idea sounds like a throwback to the early phonograph days, I know, but I think it is technically practical and that such a set would have several useful applications.

KANSAS CITY

C. N. HEWLETT

Blue Book

There has been some talk here by one or two of the radio distributors of using your Blue Book (*RR June '37*) in their California Fair Trade Act contracts. Is it your intention to revise and re-publish these Blue Books each year?

Just a word, also, of commendation to you for your helpful work in straightening out the ills of the industry with particular reference to the Blue Book.

SAN FRANCISCO WALTER J. EPSTEIN

The editors plan a revised trade-in guide, yes. Probably ready by September and will be even more complete, closer to the practical needs of the trade.

No FCC Release Yet

Have you any charts prepared covering the new broadcast allocations determined by the Cairo Convention? We would like a chart or information covering the various frequencies and nature of service intended for each group of frequencies such as local, regional, hi-power regional, clear channel, etc.

FRESNO, CALIF.

JOHN SCALES
Chief Engineer, KARM

Like Raising Our Pay

After receiving June issue of *Radio Retailing* I just had to write you in appreciation of such a wonderful magazine. When my copy of "Tricks of the Trade" arrived I thought I had my money's worth but now I say that if the subscription price was five times what it is every subscriber would be getting more than their money's worth. I think *Radio Retailing* is beyond a doubt the most complete and helpful magazine published at any price.

CANAAN, CONN.

J. G. TINTLER

FARM RADIO SALES

(Continued from page 54)

be included, some dealers find it profitable to make up a "package" and quote the whole complete radio set-up at a single price.

Radio dealers who are smart merchandisers contend that a properly prepared "package" deal not only makes it easier to sell a battery set, but because better profits can be earned on many of the necessary accessories, they feel that they have a chance thereby to offset the somewhat lower discounts that set manufacturers allow on battery sets in order to keep list prices nearer to those of mail order competitors.

It is certain that the farm set business offers many opportunities for more steady and more profitable sales volume, such as at present cannot be enjoyed in highly competitive urban territories.

Existing sales resistance due to unjustified expectance of early electrification can be cleared up by the facts on completed and approved R.E.A. projects as provided herewith.

Regular and battery sets and auxiliary equipment are provided by many responsible manufacturers at prices that make effective competition with mail order houses possible and profitable.

Economic conditions and present prospects in farm areas are such as to afford attractive advantages to the dealers who are located so that they can exploit the farm market.

All that is needed is a willingness to take fullest advantage of the opportunity through carefully planned selling.

PICKING OUTSIDE SALESMEN

(Continued from page 27)

trial before the husband gets home, if possible. He's liable to be tough! And it's much easier to soften him up after the radio is in the house.

These men are *entitled* to the privilege of stopping work at three, or as soon thereafter as their radios are delivered. They've had a tough day. Any man—a salesman on his own, that is—working as they have

worked, is in no fit condition to try to sell in the afternoon or evening. It's not so much a question of energy and ability to work long hours; it's a question of mental condition and being "primed" to sell. Further, these canvassers, keeping regular hours like this, feel that they really have a job. And the good ones will very soon discover that they *have* got a job.

The supervisor, until he is very sure that each man works hard and conscientiously whether he is around or not, should keep very close watch on them. He can make some of his calls while they're working, if he wishes, but they must never know when he's liable to drive up. It won't take him long to separate the workers from the loafers. He gets rid of the loafers right away.

It goes without saying that the salesmanager must know his man, and know him well, when hiring a supervisor. Although the supervisor may receive no salary himself, he is responsible for three or four other salaries. And just as the salesmanager must answer to the dealer, the supervisor must answer to the salesmanager. It's up to him to get \$200 business for each of his men getting a salary. And even at that he's not making a fortune. Four per cent of \$800 is only \$32. Three per cent is only \$24.

But he is, of course, going to have personal sales too, at commission plus override. He'll get prospects from the sales he makes for the men, and those leads are strictly his own. Whether or not he'll be entitled to a car allowance will depend upon how profitable he is, how much business he gets, how he handles trade-ins, how soon he gets his men on straight commission.

The salesmanager should keep a budget on each supervisor, and be governed entirely by what there is in the picture.

While I speak of getting the men off the salary basis as soon as possible this is not always so easy to do, even when they would earn more on straight commission! Some men ask for the change, others are more cautious. I, personally, have seen men stick to the salary basis after losing money on it for four weeks running.

**THE G-E BEAM-A-SCOPE IS THE
BIGGEST RADIO SALES FEATURE OF 1938**



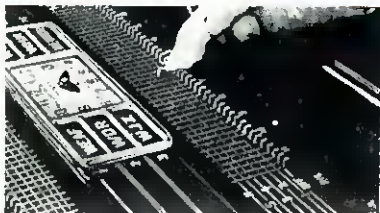
Scoop!
THE G-E BEAM-A-SCOPE
No aerials — No ground connections needed. Reduces local static interference. Gives quieter, finer reception especially in noisy areas. Makes the new G-E the first truly portable radio. Just plug it in like a floor lamp—anywhere in any room.

Scoop!
G-E KEYBOARD TOUCH TUNING



Utterly new. A tremendous advance over all previous types of automatic tuning. Lightning Fast! Your program at the touch of a key! Easier tuning. More accurate tuning. A great demonstration feature—that will help close more sales for you.

Scoop!
G-E AUTOMATIC PROGRAM PRE-SELECTOR



At last a radio that tunes itself for 24-hours ahead. This great feature is miles ahead of remote controls of every type. Pick out the programs you want to hear on five different stations—and the G-E Automatic Program Pre-selector brings them in—without your doing another blessed thing. No re-tuning—No re-dialing. From now on its 'Time Tuning'!

WATCH these new General Electric Radio Features set the pace and become the year's best sellers. From every standpoint the new G-E line is sensational. 15 great new models covering every price bracket. And every model carries a discount that spells big-profit opportunity. Backed by a great national advertising and promotion campaign. It pays to line up with General Electric Radio.

**General Electric
Radio
Presents THREE
Sensational
SALES MAKING
Scoops**

GENERAL  ELECTRIC

CROSLEY

releases the 2nd sensation
of their startling 1939 radio line

**6 WORKING
TUBES**

**BROADCAST
AND SHORTWAVE
AC RECEIVER
KNOB TUNING, TOO**

**5 PUSH
BUTTONS
(PRESTOTUNE)**

**The "SIXER"
SUPERHETERODYNE
ONLY \$19.99**

CROSLEY RADIO PLANS for 1939 EXCITE INDUSTRY

The "Vanity", a Crosley push-button radio at \$9.99 is already proving a startling sales maker, as indicated in dealers orders and re-orders and the rush at the factory. Accurate tuning—both push button and knob; beautiful brown moulded cabinet—excellent tone.

**THE
VANITY
\$9.99**

The "Vanity de Luxe" in old ivory plaskon moulded cabinet—4 working tubes including beam power tube is another "best seller" at \$12.99.



Magnificent! This will be your comment when you hook up this newly designed radio for trial—when you find the positive clear cut action of the push button tuning—when you explore the easy tuning of the knob control—when you hear the fine tone so free from distortion—when you discover the amazing true volume the set delivers. We had a sensation in the "FIVER" at this price. We present a SMASH HIT in this "SIXER" AC Superheterodyne broadcast and shortwave 5" dynamic speaker in a moulded cabinet of great beauty and acoustic excellence.

Prices slightly higher in South and West.

**Don't Wait! Act Now! Be early to show
and you'll be first to sell. Send us the coupon.
Be first with this sure profit maker of 1939.**

The Crosley Radio Corporation
Cincinnati, Ohio.

I am mailing this coupon as the quickest way to see—to hear—and to know the new "SIXER". Please have the distributor's salesman call on me PRONTO!

RR-738

Name

Address

City

State

THE CROSLEY RADIO CORPORATION

POWEL CROSLEY, Jr., President

CINCINNATI

Home of "The Nation's Station"—WLW—70 on your dial