

# RADIO *and Television* TODAY

# AUGUST

POCKET RADIOS

TELEVISION

FM

ELECTION NEWS

WAR NEWS

POLITICAL CAMPAIGNS

RECORDERS

DRAMAS

SYMPHONIES

RECORD PLAYERS

PHONOGRAPH  
COMBINATIONS

COMPACTS

PORTABLES

SOUND  
AMPLIFICATION

WAVE

RADIO SET

TUBE REPLACEMENTS

REPAIRS



The Tide Comes In  
for the Radio Man!

**COMPLETE  
COVERAGE  
For Your  
Condenser  
Requirements**

P. R. MALLORY & CO., Inc.  
**MALLORY**

**Replacement  
Condensers**



Here's the answer to replacements on millions of condensers now in use . . . and the only adequate answer to the problem of replacements on inexpensive compact receivers.

On every point, the Mallory line of Tubular Condensers assures you of faster, more efficient replacement . . . at a better profit. The line is complete. You never have to compromise on replacement needs. And each individual unit reduces mounting problems to the simplest possible form.

Remember . . . Mallory Tubular Condensers have been developed around an exhaustive study of *all* original equipment types. You can be sure of the exact replacement you need every time.

**Over 50 Ratings to choose from**

Mallory Tubular Condensers include, wherever sizes permit, multiple separate section units. The complete line is furnished in attractive, neat, permanently marked tubes . . . definitely sealed against humidity and moisture. All condensers are provided with 6-inch flexible leads for installation convenience.

See Your  
Mallory Distributor  
for Complete  
Information Today!

**\*FP (Fabricated Plate) Tubular Condensers (Type BB)**

TRADE MARK REG. U. S. PAT. OFF.

made by **MALLORY**

Every advantage of FP construction is afforded in these small, metal-encased tubulars. Made with one piece drawn aluminum can and insulated with an attractive cardboard cover clearly marked for rating identification. Strong internal construction eliminates troublesome open circuits.

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



*\*Not etched construction*

Use  
P. R. MALLORY & CO., Inc.  
**MALLORY**  
APPROVED  
PRECISION PRODUCTS

*Include*

VIBRATORS • VIBRAPACKS • CONDENSERS • VOLUME  
CONTROLS • ROTARY SWITCHES • SINGLE AND  
MULTIPLE PUSH BUTTON SWITCHES • RESISTORS  
RADIO HARDWARE

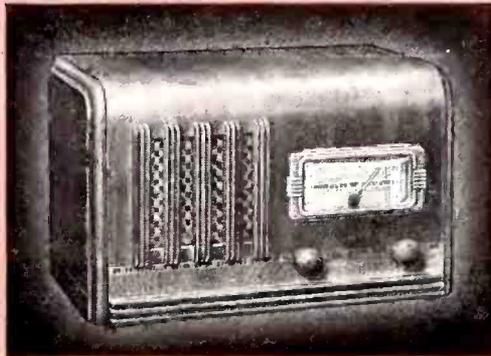
# ARVIN 1941 Headliners

## ALL HOT NUMBERS!



**MODEL 622A** . . . \$14.95  
Ivory plastic cabinet, above . . .  
Model 622, walnut plastic cabinet . . . \$13.95

Three models in Arvin 600 series are big 5-tube AC-DC superheterodynes (including power rectifier tube). Two dual-purpose tubes in improved circuit provide exceptional performance. Quadruple tuned I. F. amplifier for unusual selectivity and splendid distant reception. Built-



**MODEL 632** . . . \$17.95  
Rubbed walnut wood cabinet . . .

In loop antenna. Radio plays anywhere you plug it in, no ground needed. Connection on back of loop antenna permits use of outside aerial for extra distance. High sensitivity electro-magnetic speaker. Big easy-to-read illuminated dial. Band coverage 540 to 1600 kc. Large attractive cabinets.



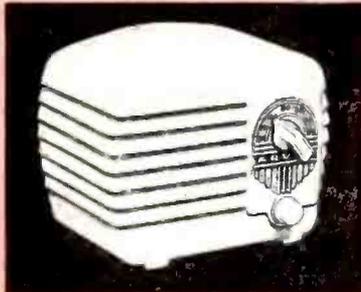
**MODEL 302A** . . . \$16.95  
Unbreakable cabinet in ivory, above  
Model 302, in deep brown finish . . . \$14.95

RADIO-PHONOGRAPH—Powerful four-tube radio (including rectifier). Brings in radio broadcasts or plays 10" or 12" recordings beautifully. Audio system gives high output and clarity of reproduction. Attached aerial. Self-starting, constant 78 r.p.m. phonograph motor.

**MODEL 522A** . . . \$10.95  
Unbreakable cabinet in ivory.  
At right . . . . .

Model 522, same as above in walnut \$9.95

Hot performing 5-tube superheterodyne (including power rectifier tube). Two dual-purpose tubes increase performance. Built-in loop antenna, electro-dynamic speaker, quadruple tuned I. F. amplifier for knife-edge selectivity and high-power output. Attractive airplane-type dial. Band coverage 540 to 1600 kc.



**MODEL 402A** . . . \$7.95  
Unbreakable cabinet in ivory.  
At left . . . . .

Model 402, same as above in walnut \$6.95

Attractive, efficient three-tube AC-DC radio (including rectifier). Power output two watts. Electro-dynamic speaker gives clear tone. Attached 20-foot aerial and duo-tone embossed dial. Band coverage 540 to 1750 kc. which includes some police calls. Easily tucks away in overnight baggage.



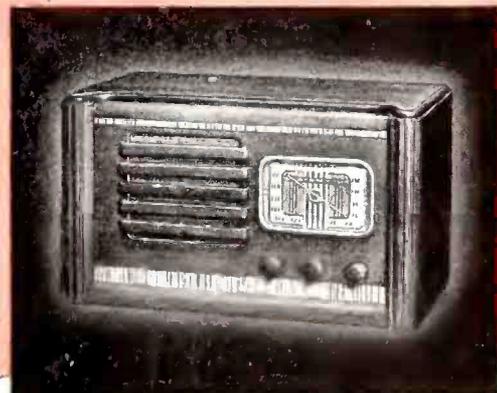
**MODEL 722A** . . . \$19.95  
Ivory plastic cabinet, left.

Model 722 . . . . . \$18.95  
Walnut plastic cabinet.

Three models in Arvin 700 series are powerful 6-tube AC-DC superheterodynes. Two dual-purpose tubes in improved circuit step up performance. Extreme selectivity separates "close-together" stations. Permanent

magnet speaker gives fine reproduction over wide tone range. Big illuminated airplane-type dial. Built-in loop antenna. Continuous tone control. Band coverage 540 to 1600 kc. Large, impressive cabinets — beautifully designed.

**MODEL 732** . . . \$24.95  
Rubbed walnut wood cabinet, at right.



ALL PRICES HIGHER WEST AND SOUTH

● Low list prices, good discounts, exceptional performance and eye appeal are all combined to bring you quick turnover on Arvins.

Arvin is the best net profit line in the industry—because all Arvins are small but hot numbers, all "headliner-attractions" for volume sales and "clear" profits.

All Arvins sell fast—are easy to handle—are quickly obtained from conveniently located jobbers who co-operate with you in merchandising any one or all models. And every Arvin Radio is backed by a company with total capital, surplus and reserves



of more than \$5,000,000. Alert dealers will get the handsome free floor display, shown here in miniature, by ordering at least one each of any six Arvin models now. Strongly constructed and beautifully colored—5 feet high, 3 feet wide.

Arvin hot numbers and this merchandiser will boost your radio profits. Get your order in now.

**NOBLITT-SPARKS INDUSTRIES, INC., COLUMBUS, INDIANA**

● The company behind Arvin Radios sold four times as many sets in 1939 as in the year before—and 20% more in first 6 months of 1940 than in all of 1939.



**PUTS INTO YOUR GRASP  
THE BIGGEST, RICHEST  
MARKET SINCE RADIO**



**For Really "Big-Time" Profits  
from Home Recorders, BACK ROCK-OLA**

● *Home record-making is here*—the thrill and fun sensation of the century. Are you ready for it?—ready to capitalize on this lushest market since radio itself? Think of it in terms of the thousands, the millions, who will find a tremendous irresistible appeal in the suggestion "make records at home as simply as you switch on a light"—and plan now to get your share.

Now, as you read these words, the huge Rock-Ola factory is turning out 6 great models—and the Rock-Ola organization is developing a merchandising plan to help you move them in big volume.

Rock-Ola, as the world's greatest phonograph maker, and as one of the 10 furniture manufacturers with national distribution, has the background, the experience and the ability to help you put across this grand new, eagerly awaited instrument.

So, expect to find in Rock-Ola Recorders *all the engineering points* required for simple, satisfactory, care-free operation; *all the convenience features* that such an instrument needs to have mass consumer appeal; plus outstanding cabinet styling and design.

Get set for prices in a range that mean mass sales—with full discounts on every set. Above all, look for the backing that only an organization like Rock-Ola can give—for advertising, sales promotion and merchandising all aimed at selling an exclusive home recorder line.

Does it read like a worthwhile proposition? Then get the complete Rock-Ola story now—find out how a Rock-Ola dealership puts you in line for big, quick profits from this exclusive home recorder line. Mail the coupon today.

**IMPORTANT:** Be sure to ask about Rock-Ola's sensationally-priced home recording discs.

Here's the  
**ROCK-OLA**  
Console Recorder MODEL RA-4  
**1 of 6**  
**GREAT VALUES THAT WILL**  
Make Records    Play Records  
Receive Radio  
List Prices Range from  
**\$59.95 to \$149.95**  
(Model shown, \$99.95)



Look to  
**ROCK-OLA**  
for Leadership

**CHECK THESE SALES-WINNING FEATURES:**

- Backed by Rock-Ola's great nation-wide reputation.
- Built Specially for Home Recording
- Single Button Switch-Over
- Two Separate Crystal Arms
- Simplified Level Indicator
- Convenient Microphone Outlet on Instrument Panel
- Tone Control
- Wide Angle Sound Distribution
- Automatic Light in Cabinet
- Built-In Record Storage Cabinets
- Luxurious Cabinet Designs

**DISTRIBUTORS:**  
A few choice territories are still available. Write or wire at once for complete details.

**ROCK-OLA MANUFACTURING CORPORATION,**  
Dept. RT-8, Recorder Division,  
800 N. Kedzie Ave., Chicago Ill.

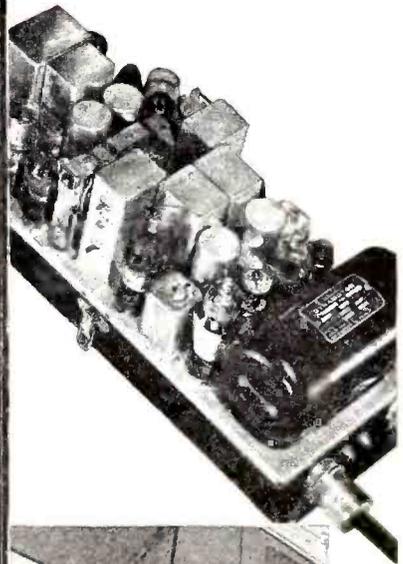
Please send us the complete Rock-Ola dealer story, including details on merchandising plans, discounts, etc.  
 I am interested in Rock-Ola Discs.

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

U. S. GOVERNMENT

**APPROVED**

**AVIATION DIRECTION FINDER  
IS RAYTHEON EQUIPPED!**



An acknowledged leader in the field of aircraft radio direction finders is Learadio. Their equipment bears the official mark of approval of the Civil Aeronautics Authority and is used not only by the United States Government but also by the Governments of Canada, China, England, Japan, Peru, Sweden and many others.

It is not surprising that an independent survey by the Lear engineers of available tubes for these delicate and vital instruments showed RAYTHEONS to be the best for the work and most reliable.

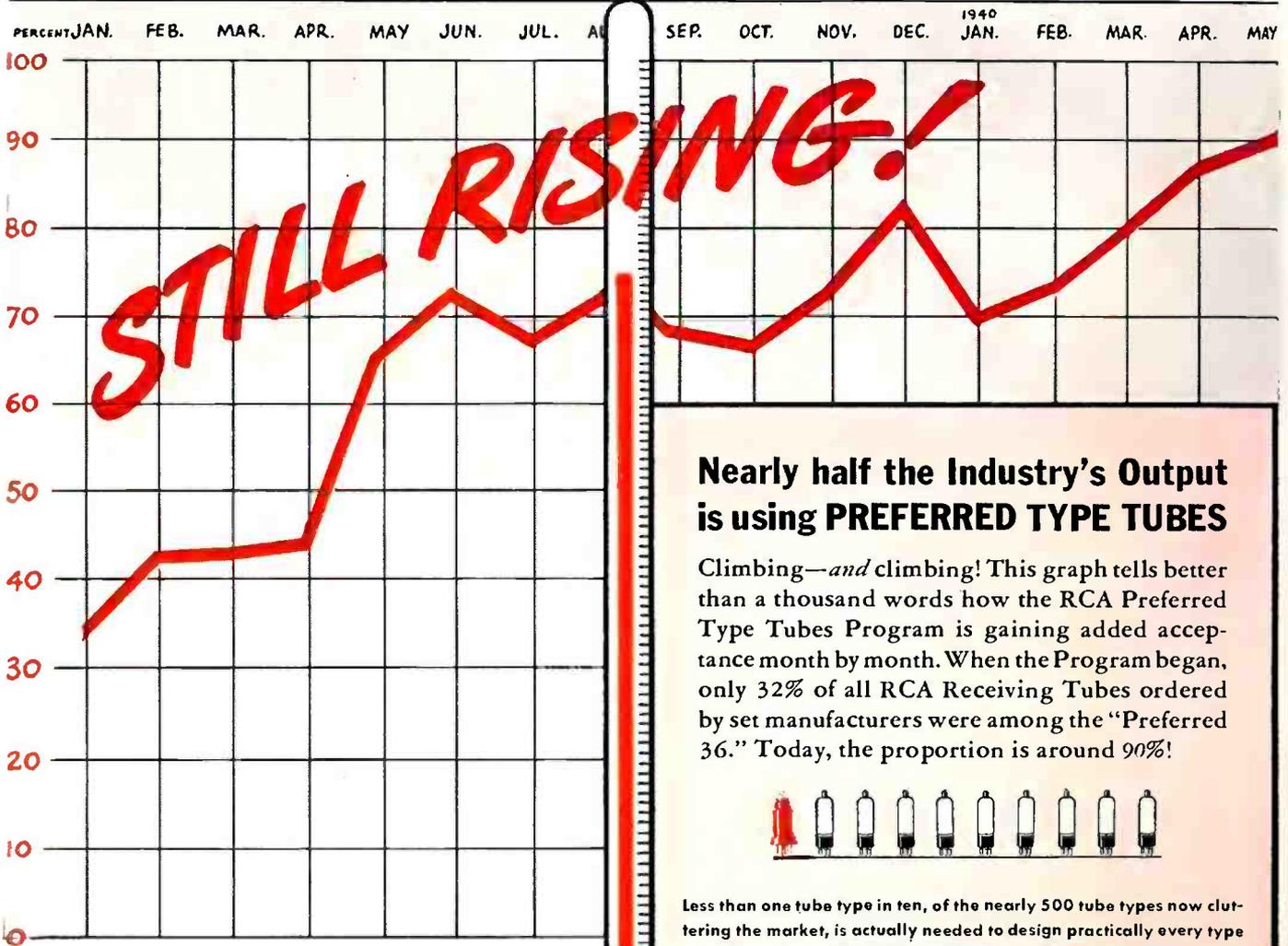
Yet these are the same tubes from the same production that you might be using as replacements in an ordinary home radio receiver! Is it any wonder that the best engineers of Set Manufacturers and most successful Servicemen use RAYTHEONS in their work? Especially since RAYTHEONS actually cost no more!

Raytheon Production Corp., Newton, Mass., New York, Chicago, Atlanta, San Francisco.



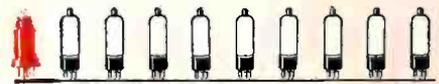
**MAKES THEM ALL**

**WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS"**



### Nearly half the Industry's Output is using PREFERRED TYPE TUBES

Climbing—and climbing! This graph tells better than a thousand words how the RCA Preferred Type Tubes Program is gaining added acceptance month by month. When the Program began, only 32% of all RCA Receiving Tubes ordered by set manufacturers were among the "Preferred 36." Today, the proportion is around 90%!

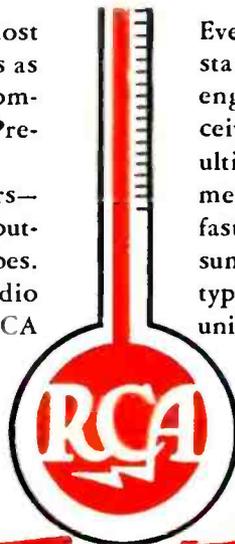


Less than one tube type in ten, of the nearly 500 tube types now cluttering the market, is actually needed to design practically every type of radio receiver for finest performance at the lowest ultimate cost.

# More than 5,000,000 SETS IN 1940 will use Preferred Type Tubes!

**I**NTO new 1940 receivers are going almost as many of the 36 Preferred Type tubes as the total of all the 400-odd other types combined! And the curve of acceptance for Preferred Types is still skyrocketing up!

*Acceptance:* Five Million 1940 Receivers—approximately half the industry's total output in 1940—will use Preferred Type Tubes. *Acceptance:* 18 of the country's leading radio set manufacturers have endorsed the RCA Preferred Type Tubes Program—have endorsed it, followed it, and adapted it to their production because they believe it a benefit to the industry... to themselves... to you.



Everyone gains, when the road is cleared for standardization. Manufacturers gain because engineers can design virtually every type of receiving set for a desired performance at lowest ultimate cost. Distributors, dealers and servicemen gain—and will gain increasingly—through faster turnover and fewer stock items. The consumer gains, because more production of fewer types means less costly production of better, more uniform tubes—more tube value for his tube dollar.

The way has been pointed. The road is open. Streamline *your* problems with the RCA Preferred Type Tubes Program!

*Over 380 million RCA Radio Tubes have been purchased by radio users.*

# Preferred Type Tubes

RCA Manufacturing Co., Inc.  
Camden, New Jersey • A Service of Radio Corporation of America



# NEW FM

## STROMBERG-CARLSONS BOOST UNIT SALES *and* UNIT PROFITS!



No. 535-M with the Labyrinth and Special FM Carpinchoe Speaker. FM, Standard and Short Wave reception. Walnut cabinet.

All Stromberg-Carlson FM Receivers are licensed under Armstrong Wide-Swing Frequency Modulation patents.

When radio dealers *telegraph* their approval of a radio line, THAT'S NEWS! And even more important is their report that FM Stromberg-Carlsons are *increasing unit sales and profits.*

If you want MORE SALES . . . BIGGER SALES . . . and BETTER PROFITS, push Stromberg-Carlson—the line that includes Frequency Modulation . . . backed by over a year's field experience. And remember—Stromberg-Carlson *alone* brings you the exclusive Labyrinth and Carpinchoe Speaker System that captures the utmost of Staticless Radio's extended musical range.

For complete details of the radio that's *a year ahead*, see your distributor today—or write direct to STROMBERG-CARLSON TELEPHONE MFG. CO., Rochester, N. Y.

### They say . . .

"May we express our appreciation for the opportunity Stromberg-Carlson has afforded us through the introduction of FM receivers. For the first time in years we are making profitable high unit sales. We feel the coming season will bring real prosperity to every radio dealer who hitches his wagon to the Stromberg-Carlson star."

Sam Garard, Sun Radio Co.  
New York City

"Our nearest FM station is fifty miles away but the public is convinced that FM is radio's greatest achievement in years. Have sold twenty Stromberg-Carlson receivers to date. Boston soon to have two FM stations and then we will really go."

F. T. White, Radio Manager,  
Chickering and Sans Division  
Boston, Mass.

"Frequency Modulation has given us the finest reception we ever had and is a great improvement over standard broadcasting. New FM Stromberg-Carlson models have stimulated business tremendously."

E. F. Cass, President,  
Broadway House of Music, Inc.  
Milwaukee, Wis.

"My radio business advanced forty percent selling Stromberg-Carlson FM receivers since January first. Second Frequency Modulation transmitter recently opened in Worcester area and my sales will skyrocket during next few months. Units up, profits up with Stromberg-Carlson."

Haward Amidan, Worcester, Mass.

"Effect of FM sales on our business during past six months most satisfactory. Expect to double our volume on your line with more than double profit because unit sale is greatly increased. Stromberg-Carlson FM pioneering appreciated."

Heins & Balet, New York City

*There is nothing finer than a*

# Stromberg-Carlson

# TWO GREAT JOIN COLUMBIA'S LIST



## Leopold Stokowski conducting the All-American Youth Orchestra

**A** GAIN Columbia announces one of the greatest scoops in record history! Two more of the world's most famous musical names—names that really build sales—have now been added to Columbia's unbeatable list of exclusive classical artists and orchestras!

But that's not all! Besides one of the most amazing arrays of talent ever assembled, Columbia offers you 3 OTHER SPECTACULAR SALES ADVANTAGES: *First*, Columbia's new low prices open vast new markets for sales of fine recordings! *Second*, Columbia "Masterworks" are today the finest records ever made. They give your customers *greater fidelity . . . less surface sound . . . and longer wear* than ever before! *Third*, Columbia "Masterworks" at the new low prices are now backed by the biggest, hardest hitting advertising campaign in the industry's history!

### **NOW** THE WORLD'S GREATEST ARTISTS ARE ON COLUMBIA "MASTERWORKS"

Leopold Stokowski Conducting  
The All-American Youth Orchestra  
The Philharmonic-Symphony  
Orchestra of New York  
John Barbirolli, Conductor  
Artur Rodzinski and the  
Cleveland Orchestra  
Frederick Stock and the  
Chicago Symphony Orchestra  
Dimitri Mitropoulos and the  
Minneapolis Symphony Orchestra

Sir Thomas Beecham  
Felix Weingartner  
Igor Stravinsky  
Howard Barlow  
Andre Kostelanetz  
Joseph Szigeti  
Nathan Milstein  
Alfredo Campoli  
Walter Gieseking  
Egon Petri  
Edward Kilenyi

Robert Casadesus  
Nelson Eddy  
Nino Martini  
Don Cossack Chorus  
Bartlett and Robertson  
Gregor Piatigorsky  
Emanuel Feuermann  
Ernst Victor Wolf  
Charles Kullman  
Josephine Antoine  
Budapest String Quartet

Roth String Quartet  
Pasquier Trio  
Lener String Quartet  
Stuyvesant String Quartet  
Curtis String Quartet  
Dorian String Quartet  
Maurice Evans  
Orson Welles  
Roland Hayes  
Kathryn Meisle  
Carlo Morelli

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*Columbia*

# NEW NAMES OF EXCLUSIVE ARTISTS

## The Philharmonic-Symphony Orchestra of New York



Feature these Sensational  
new September Releases!

### Leopold Stokowski

CONDUCTING THE ALL-AMERICAN  
YOUTH ORCHESTRA

THE STAR SPANGLED BANNER  
GOD BLESS AMERICA  
10-inch record No. 17204-D

.75

SYMPHONY NO. 5 IN E MINOR  
("From the New World")  
(Dvorak). Set M-AM-MM  
416. Six 12-inch records.

\$6.25

THE PHILHARMONIC-SYMPHONY  
ORCHESTRA OF NEW YORK  
JOHN BARBIROLLI, CONDUCTOR  
SYMPHONY NO. 2 IN D MAJOR  
(Brahms). Set M-AM-MM  
412. Five 12-inch records.

\$5.50

For Big Volume Keep these 2  
Best Selling "Masterworks"  
always in stock

SCHEHERAZADE (Rimsky-  
Korsakov). The Cleveland  
Orchestra, Artur Rodzin-  
ski. Conductor. Set M-  
AM-MM 398. Five 12-inch  
records. \$10.00 \$5.50

NUTCRACKER SUITE (Tchai-  
kovsky). Chicago Symphony  
Orchestra, Frederick Stock,  
Conductor. Set M-AM-MM  
395. Three 12-inch records. \$5.00 \$3.50



# "MASTERWORKS" Records

AUGUST, 1940

# TWO GREAT NEW NAMES

## JOIN COLUMBIA'S LIST OF EXCLUSIVE ARTISTS



### Leopold Stokowski conducting the All-American Youth Orchestra

AGAIN Columbia announces one of the greatest scoops in record history! Two more of the world's most famous musical names—names that really build sales—have now been added to Columbia's unbeatable list of exclusive classical artists and orchestras!

But that's not all! Besides one of the most amazing arrays of talent ever assembled, Columbia offers you 3 OTHER SPECTACULAR SALES ADVANTAGES: First, Columbia's new low prices open vast new markets for sales of fine recordings! Second, Columbia "Masterworks" are today the finest records ever made. They give your customers greater fidelity... less surface sound... and longer wear than ever before! Third, Columbia "Masterworks" at the new low prices are now backed by the biggest, hardest hitting advertising campaign in the industry's history!

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The All-American Youth Orchestra  
The Philharmonic-Symphony  
Orchestra of New York  
John Barbirolli, Conductor  
Arthur Rodziński and the  
Cleveland Orchestra  
Frederick Stock and the  
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Sir Thomas Beecham  
Felix Weingartner  
Igor Stravinsky  
Howard Barlow  
Andre Kostelanetz  
Joseph Szigeti  
Nathan Milstein  
Alfredo Campoli  
Walter Gieseking  
Egon Petri  
Edward Kilenyi

Robert Casadesu  
Nelson Eddy  
Nino Martin  
Don Cosseck Chorus  
Bartlett and Robertson  
Gregor Piatigorsky  
Emanuel Feuermann  
Ernst Victor Wolf  
Charles Kullman  
Josephine Antoine  
Budapest String Quartet

10th String Quartet  
Pasquier Trio  
Lester String Quartet  
Stuyvesant String Quartet  
Curtis String Quartet  
Dorian String Quartet  
Maurice Evans  
Orson Welles  
Roland Hayes  
Kathryn Meale  
Carlo Morelli

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# Columbia

RADIO TODAY



### The Philharmonic-Symphony Orchestra of New York

### Feature these Sensational new September Releases!

Leopold Stokowski  
CONDUCTING THE ALL-AMERICAN  
YOUTH ORCHESTRA  
THE STARSPANGLED BANNER  
OO-BLESS AMERICA  
10-inch record No. 17204-D  
\$1.75

For Big Volume Keep these 2  
Best Selling "Masterworks"  
always in stock

THE PHILHARMONIC-SYMPHONY  
ORCHESTRA OF NEW YORK  
JOHN BARBIROLLI, CONDUCTOR  
SYMPHONY NO. 2 IN G MAJOR  
(Brubins), Set M-A-M-M-M  
412. Five 12-inch records. \$5.50

SCHEHERAZADE (Rimsky-Korsakov), The Cleveland Orchestra, Arthur Rodziński, Conductor. Set M-A-M-M 390n. Five 12-inch records. \$10.00

NUTCRACKER SUITE (Tchaikovsky), Chicago Symphony Orchestra, Frederick Stock, Conductor. Set M-A-M-M 395. Three 12-inch records. \$5.00



# "MASTERWORKS" Records

AUGUST, 1940

*Silk stockings*

## AND RADIO TUBES

**T**HE SMOOTH TRIMNESS that makes silk hosiery so attractive and alluring depends on clear, even silk threads. To insure a flawless product, quality hosiery mills carefully test the strength of their thread. The knitters, then, get only clean, unknotted silk from which they can make good hosiery.

The "Scott Tester" developed for hosiery and other textile manufacturers, is used to test fine thread and cloth. Sylvania saw this same precision measuring device could just as efficiently be used for testing and measuring Molybdenum and alloy wires used for grids, filaments and other delicate parts in Sylvania Radio Tubes.

Before Sylvania enterprise led to this improved method, it was common practice to judge wire according to elongation. But the important criterion for determining wire is uniform strength, tensile strength and yield point—and Sylvania pioneered the way! In fact, research on the filament wire for the Sylvania 1.4 volt battery tubes was made possible through the accurate testing of this machine. The filament wire in these tubes is  $\frac{1}{3}$  the thickness of a human hair—so fine that the common method of judging wire could not be used.

Testing wire with the Scott Tester is only one of the hundreds of special operations that help to make Sylvania Radio Tubes better. To you who sell Sylvania, this care and precision means SATISFIED CUSTOMERS—the kind that give you profitable, repeat business.

*Hygrade Sylvania Corporation, Emporium, Pa.*

# SYLVANIA

SET-TESTED RADIO TUBES





Make no mistake — this is your big year for bigger profits — and you're going to get them with the finest, fastest-selling RCA Victrola radio phonographs that ever kept a cash-register ringing.

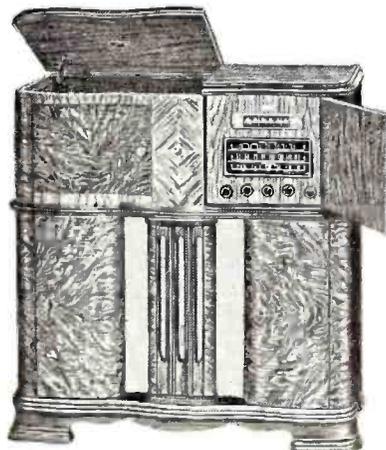
**TAKE A LOOK AT THE REASONS WHY!**

- 1 You have a *complete* line — 13 great models covering complete range of style and price!
- 2 Authentic Period Style Cabinets — the most beautiful instruments you've ever had to offer!
- 3 New Exclusive RCA Victor Tone Guard — show your customers how it means pure record tone!
- 4 Stabilized Electric Tuning — a grand selling feature — push a button, there's your station!
- 5 Amazing new Overseas Dial — the hottest feature of the hottest RCA Victrola line in history!
- 6 Home Recording — the latest thing and the one most-wanted feature of the year!



**LOW COST TO YOUR CUSTOMERS — BIG PROFITS FOR YOU!**

RCA Victrola Model V-170, priced so low you'll be amazed, enables you to offer such great selling features as Gentle Action Automatic Record Changer for 10" or 12" records... 6 RCA Victor Preferred Type Tubes... American and foreign radio reception... Electric Tuning... Two Built-in Magic Loop Antennas for domestic and foreign programs... supersensitive 12" Electrodynamic Speaker... 3-point bass and treble tone control for RCA Victrola, 2-point tone control for radio... and many other advantages. Compact, modern cabinet of heart walnut veneer with a band of stripe mahogany veneer, measures only 33 1/4" high, 29 3/4" wide, 16 1/4" deep. Price includes \$4.50 in Victor Records and record rack.



**THIS "CONCENTRATION OF VALUE" WILL SELL PLENTY!**

RCA Victrola Model V-205. Constructed of heart walnut, butt walnut and Prima Vera veneers with instrument panel conveniently located in front. Has Gentle Action Automatic Record Changer for 10" or 12" records... exclusive RCA Victor Tone Guard... 9 RCA Victor Preferred Type Tubes... American and foreign reception on 3 bands... Electric Tuning... Built-in rotatable loop antenna with separate antenna for foreign programs... and more than a score of other features. Cabinet, which is available in mahogany as well as walnut, is 36" high, 35" wide, 17 1/4" deep. Price includes \$4.50 in Victor Records and record rack. Also available with home recorder as Model VHR-207. Price includes 7 home recording blanks.



**OUTSTANDING IN BEAUTY — OUTSTANDING IN SALES APPEAL!**

RCA Victrola De Luxe Model V-300. In this bow front cabinet heart walnut, butt walnut and Prima Vera veneers are beautifully blended. RCA Victrola Model V-300 will thrill your customers who have a real eye for beauty. Also available in mahogany, it is 35" high, 34 3/4" wide, 18 1/2" deep. This instrument provides Gentle Action Automatic Record Changer for 10" or 12" records... exclusive RCA Victor Tone Guard... 10 RCA Victor Preferred Type Tubes plus Magic Eye... American and foreign reception on four bands... Overseas Dial with 31-meter spread band... Electric Tuning... 15" supersensitive Electrodynamic Speaker... and many other outstanding features. Price includes \$5 in Victor Records of customer's selection.

For finer radio performance, RCA Victor Radio Tubes. Trademarks "RCA Victor," "Victor," "RCA Victrola" Reg. U. S. Pat. Off. by RCA Mfg. Co., Inc. Ask about the new RCA Victor Long Life Needle.

**RCA**  
**Victrola**

Combines Record  
and Radio Entertainment  
A Service of the  
Radio Corporation of America

# WESTINGHOUSE *21st Birthday* RADIOS



**YOU CAN'T MISS  
WITH THIS 1941  
CELEBRATION LINE!**

"You know, 1941 is the 21st Birthday year of American radio—because back in 1920 Westinghouse made the first radio program broadcast and the first commercially built radio receivers for home use. In celebration of these events the 1941 Westinghouse Radio Line offers the public something finer in radio beauty and performance than ever before. I've been in the radio business a good many years, and this is a fast-selling, money-making line if I ever saw one!"

**YOU COULDN'T ASK  
FOR MUCH MORE...  
EYE-CATCHING STYLES! REAL PER-  
FORMANCE! FAST-MOVING PRICES!  
AND HANDSOME PROFITS, TOO!**

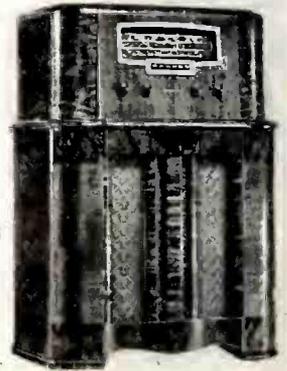
"Two leaders at the moment are models WR-484 and WR-388, but you'll find every number in the Westinghouse 21st Birthday Series a triumph in tone quality, cabinet construction and design. Every set is priced to enable you readily to meet competition. And you'll like the profit margin!"

**WHY NOT PHONE YOUR NEAREST WESTINGHOUSE DISTRIBUTOR NOW?**



**MODEL WR-484**

A radio-phonograph combination of distinctive design. Walnut or mahogany. Automatic Record Changer.



**MODEL WR-388**

A commanding "dome" design console. Six feather-touch tuning buttons. Big 12" speaker.



**MODEL WR-288**

The Aristocrat of table models! Three band superheterodyne. Five tuning buttons.

**MODEL WR-480**

A radio-phonograph table model. "Easy-Lift" Lid. Six tuning buttons.



**MODEL WR-182.** A truly handsome ensemble of rich walnut woods. Electro-dynamic speaker.

**MODEL WR-478.** A radio-phonograph combination offering exceptional value! Plays 10" or 12" records. Built-in Loop Antenna.



**Westinghouse** *Precision* **RADIO**

©Cl B 466504 *ch*

# RADIO *and Television* TODAY

## SERVICING 50,000,000 U. S. RADIOS

To the public, to the broadcasters, and to radio manufacturers and distributors, the most important figure in the problem of keeping America's fifty million radio sets in continuous service, is The Man on the Service Firing-line!

RADIO TODAY has sent survey parties into the field to study servicing situations at first hand. The results shown on this page confirm similar studies made in 1937, 1938 and 1940.

### DEALER-SERVICE OUTLET GETS THE BUSINESS

All of these studies reveal that it is the Dealer-Service type of outlet who gets three-fourths to nine-tenths of the service business in the community. If this finding is surprising to manufacturers, it may be because they often lack actual field contact, being content to rely on their wholesalers for their knowledge of field conditions. They therefore stop short of the goal.

In brief, it is the dealer-service outlet who gets the business, and in this group the radio-music type of outlet invariably predominates in volume and service sales.

### RESULTS OF RADIO TODAY'S SURVEY

	SPRINGFIELD MASS.	DAYTON OHIO	SCRANTON PA.
List of retail sales and/or service stores, from directories, mailing services, manufacturers' and jobbers' lists, etc. ....	111	137	65
Verified as Out-of-Business, Inactive, Radio Discontinued, Dual Names, etc. ....	43	47	12
Active radio establishments, all types, retail only .....	68	90	53
Dealers .....	43	68	41
Large "Key" outlets .....	11	16	14
% of set sales by "Key" outlets .....	90%	87%	84%
Dealers with own service departments and Service shops stocking sets. . . .	65%	64%	56%
Independent servicemen, full or part time .....	22	22	11
Servicemen employed by Dealers and Dealer-Service stores .....	34	73	30
% of service done by Dealer-Service outlets .....	88%	79%	77%

EDITOR, Orestes H. Caldwell;  
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WELL-CLEMENTS, INC., 480  
Lexington Ave., NEW YORK,  
N. Y. Telephone Plaza 3-1340.  
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Vol. 6, No. 8. August, 1940.



Robert I. Petrie, one of the top appliance executives of the country, is the new vice-president and gen'l sales manager for The Crosley Corp.

# TODAY'S TRENDS

price increases and further possible dilution of our currency, may well produce the greatest radio "last-quarter" since 1929.

## Cashing in on Air Battles of 1940

The radio industry's big campaign on "Listen Before You Vote" is set for public launching Sept 16. Stations all over the U.S. are ready to start on that date, with complete promotion materials suggested by National Association of Broadcasters. Dealers and distributors will find

grams are heard each Monday at 7:15 p.m. EDST (6:15 p.m. CDST) on NBC Blue Network stations.

A fancy review of the highly popular "Radio Magic" series has just been published by NBC. It says that "no one has done more to popularize radio throughout the United States than Dr. Caldwell" and it reveals that large numbers of enthusiastic letters are being received from all over the country. The NBC announcement extravagantly lauds the editor of RADIO TODAY for his unique programs on what's new and interesting in radio, radio tubes, and radio devices.

Following the "Farm" broadcast,



RCA heads get together at jobber meet in Atlantic City—G. K. Throckmorton (right), president; Niles Trammel (left), new president of NBC; Henry C. Bonfig (seated center), RCA commercial vice-pres., and Sheldon R. Coons, Lord & Thomas.



Edward Wallerstein, president, Columbia Recording Corp., announces classical records for \$1. See p. 53.

## More Buyers for Radio

General retail trade has continued to run about 5 per cent ahead of last year, with every prospect that as the "defense spending" gets under way, buying power and business will improve more.

Consumers are spending in the upper brackets. Many automobile producers report that they've had the best July sales on record.

Radio, by comparison with 1939, may not hold its own with general business increases during August and September because of the tremendous impetus which the war gave to radio sales a year ago.

Improved consumer buying power, a Presidential election that holds greater popular interest than for many years, and the increased spending in the upper brackets in anticipation of

profitable opportunities to wade into the drive and help boost radio and listening hours.

Many manufacturers of sets and tubes have started some rousing promotions on the "Vote" theme, and when radio men take advantage of these besides cooperating with local stations, the set-up for resulting sales and service will be perfect.

NAB already has an eye-catching poster out on the "Listen" idea, issued from headquarters at 1626 K. St., N.W., Washington, D.C.

## New "Radio Magic" on the Air

A coast-to-coast broadcast on "Radio on the Farm" is being prepared as we go to press, to be aired Aug. 26 as one of the weekly series of "Radio Magic" shows presented by Editor Caldwell of RADIO TODAY. The pro-

Aug. 26, the series will next include "Radio Ties Between the Americas," Sept. 2; "Safety-First Through Radio Magic," Sept. 9; "Radio Magic and Photography," Sept. 16; "New Electronic Musical Instruments," Sept. 23; and "Magic of the Short-waves," Sept. 30.

## RMA Launches National Television Committee

Under auspices of the Radio Manufacturers Association, a group of television leaders met with Chairman Fly and Engineer Jett of the FCC at New York, July 31, to plan a national television system. "Television is bound to move forward expeditiously and successfully," declared Chairman Fly.

"The RMA has always attempted to serve the industry," explained President Knowlson of RMA. "As soon as the FCC stated it was ready for the

industry to develop standards, I offered the RMA facilities and machinery." The new industry committee will act, he said, "not as part of RMA but under the auspices of RMA, to search for and develop the best possible standards which may be set up for television at this time."

Dr. W. R. G. Baker of General Electric was appointed general chairman, and in delegating the technical sub-committees, he explained that the new television-system committee has "the responsibility for determining basic standards of a system of communication capable of transmitting intelligence in a form which will, in the future, probably have more effect on the life of the American people than any system known today.

planned last June at Chicago, by a special committee headed by Leslie F. Muter of Chicago, Chairman, and Ernest Searing of Philadelphia and Victor Mucher of Brooklyn. The statistics are confined to comparative sales percentages, without reporting actual dollar volume. Over half of the RMA parts and accessory members are already contributing their weekly reports.

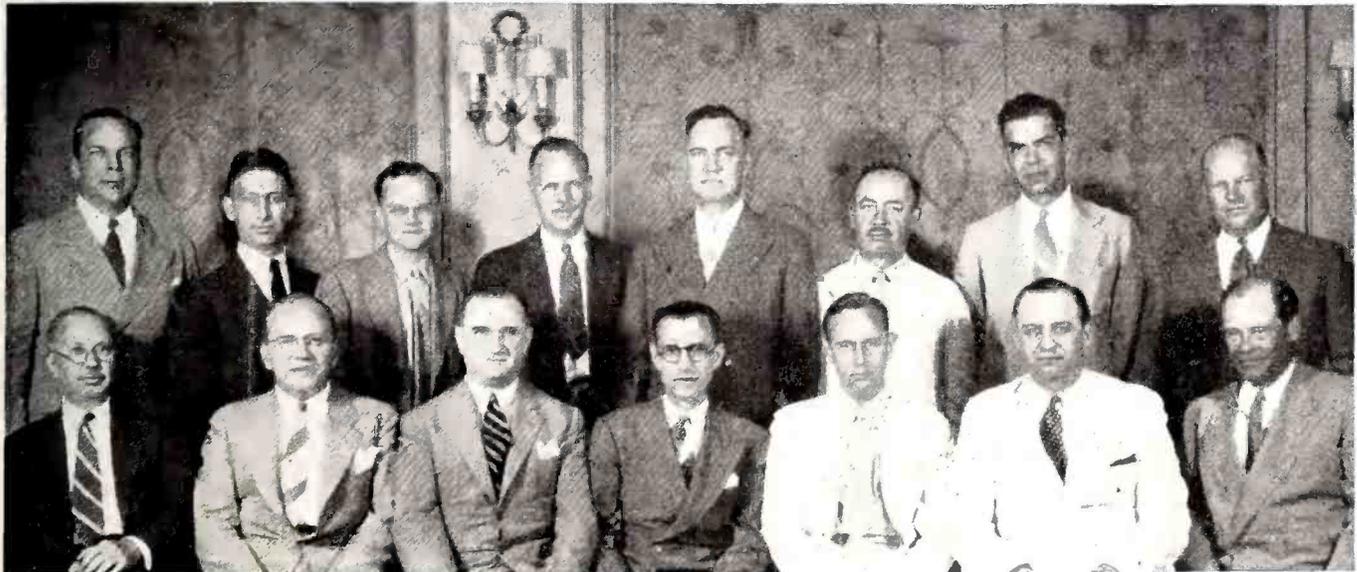
### Freed-Eisemann Is Back to Radio Set Field

Firmly believing that FM sets will obsolete present receivers, and will release the radio business from a price complex, Joseph D. R. Freed has an-

nounced that Freed-Eisemann—a name famous early in radio—is returning to the set manufacturing field.

Mr. Freed, co-founder of the original Freed-Eisemann Radio Corp., is president of the new Freed Radio Corp., 39 W. 19th St., New York City, which will shortly present its new line to the trade. Max Adelberg is treasurer of the firm and Melvin Zalkin is secretary.

"Many factors can be controlled by FM that could never be controlled before," Mr. Freed points out. "Reception quality can be maintained and the dealer can be assured on a profit which has been lost to him under the present AM structure . . . a dealer won't have to talk fidelity . . . the customer can hear it himself."



"The real possibilities of television," continued Chairman Baker, "as a means of education and entertainment, are not yet understood. Television represents a new textbook as yet unopened—a theatre stage whose curtains have not been drawn—a movie screen that is as yet dark."

The industry's new National Television Committee includes, left to right, bottom row, J. V. L. Hogan, consulting engineer; B. Ray Cummings, Farnsworth; A. N. Goldsmith, IRE; W. R. G. Baker, RMA; H. R. Lubcke, Don Lee; A. I. Lodwick, Hughes Tool; Dr. E. F. W. Alexanderson, GE. Back row: John R. Howland, Zenith; Adrian Murphy, CBS; E. W. Engstrom, RCA; F. C. Young, Stromberg-Carlson; D. E. Hartnett, Hazeltine; A. A. Oswald, Bell Telephone; D. B. Smith, Philco, and Allen B. Du Mont.

### New Statistics for Parts Manufacturers

In July the new RMA statistical service for parts and accessory manufacturer members was inaugurated. The weekly reports give valuable figures on business trends in the parts industry, the initial report for July 6 showing an increase of parts sales to radio manufacturers of 11.7 per cent over the comparative week in 1939, and an increase in jobber sales of 13.4 per cent. The second weekly RMA report, for the week of July 13, showed an increase of 16.9 per cent in parts sales to radio manufacturers and an increase of 12.4 per cent in jobber sales of the parts makers. Later reports were understood to show a similar trend.

The new RMA parts statistics were

Wilcox-Gay execs plan more recorder features. Left to right, Warren Hasemeier, general sales mgr.; Paul Gay, v.p. and engineering head; Buck Dooley, Los Angeles jobber. We hasten to add that Wilcox-Gay makes recording blanks, too, a fact that was omitted from "Radio Today's" July listing of blank manufacturers.



# RADIO'S ONRUSHING

## POLITICS

The hard-fought presidential campaign draws many extra folks to radios. A GE portable in the thick of it.



## DRAMA

CBS actress Barbara Luddy of "Five Fingers in the Night" dramas, one of the big shows this fall.



## BATTLE NEWS

H. V. Kaltenborn broadcasts the war reports for NBC—a "must" for millions of listeners.

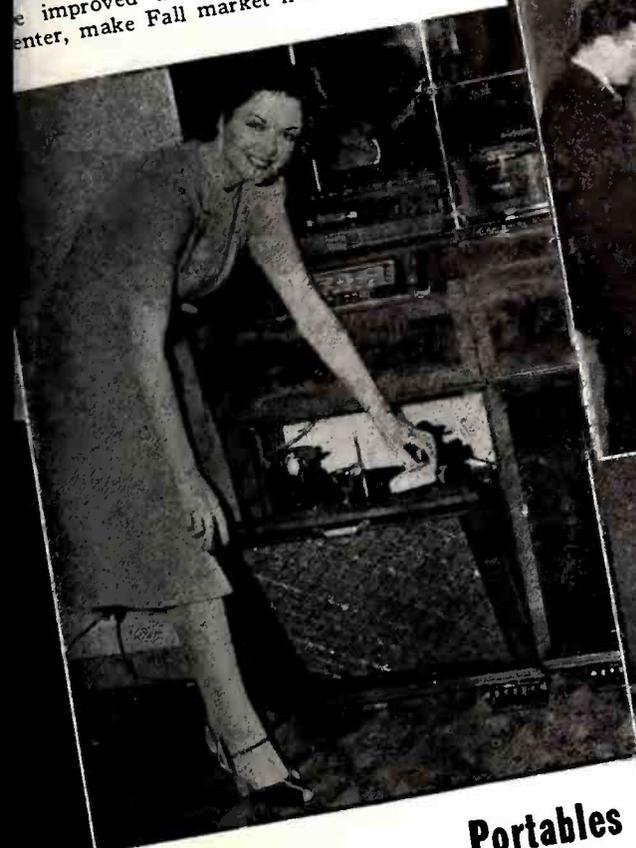


# TIDE!

## Servicing

"Busy day and night" is the service pace in Dallas, Tex., right.

Consoles Combinations like the photo-electric Philco below and the improved automatic Stromberg, right, center, make Fall market news.



## Portables

Parents in general have taken to these sets like this lass has taken to her Crosley.



## "Personals"

Pint-size sets now go everywhere. The RCA is shown here.

## Recorders

Buying trend features radio-recorders. Below, Stewart Warner.

## GOLDEN FLOOD WILL SOON POUR INTO DEALERS' CASH BOXES

Radio's strongest tide comes in this Fall and it promises to lift the dealer to his highest position. People have a terrific appetite for war news, the political air battles of the presidential campaign, and the new programs and dramas starting this Fall. All this means more servicing.

And as the nation "goes radio" completely, the public will be sharply interested in brand-new radio equipment for the home. The dealer steps in with new phonograph-radios, personal sets, consoles, portables, recorders, etc., and there's no stopping his sales program.

Look at the front cover of this issue, too, and remember the newer radio developments further out to sea; this is indeed a golden flood with the retailer on the crest of the wave.



# RADIO'S ONRUSHING TIDE!

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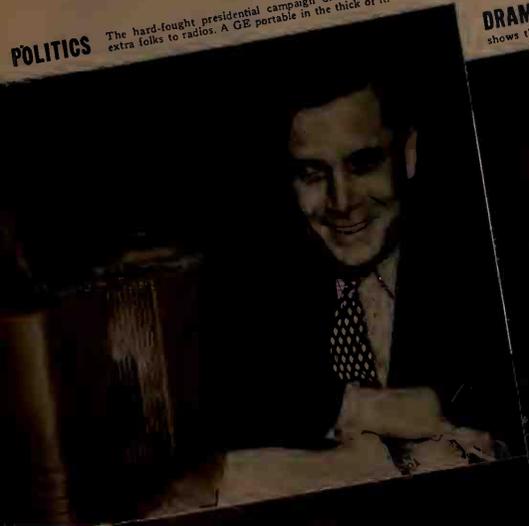
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## POLITICS



## BATTLE NEWS

H. V. Kaltenborn broadcasts the war reports for NEC—a "must" for millions of listeners.





# WAKING UP

Retailers in Nebraska and Kansas are now in the promotion news with "Farmer's Day" announcements, complete with "Apple Pie" contests and band concerts by the local Hi-Y club.

In the New England agricultural areas, jobbers of farm radio products are saying that "the sales picture has completely changed." They point to a new battery radio or to a new battery power pack, and they say "we can't keep them in stock."

A manufacturer points out that "never before in the history of the nation has the vote of the individual farmer been more important, more bitterly fought for than it will be in the 1940 Presidential Campaign . . . and

candidates realize that RADIO will elect the next president."

Thus the farm radio business gets more and more brisk, as the country gentlemen eye the economy, convenience and beauty of the new models, and prepare to listen before they vote. New profits loom ahead for dealers who sail into radio's greatest unsaturated market.

## CROPS AND PROFITS

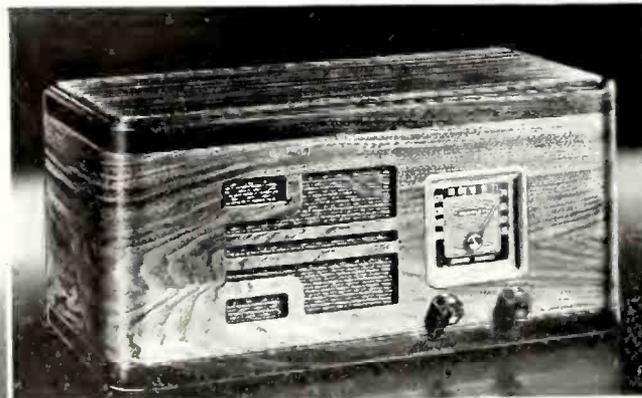
In the Western areas the 1940 theme of the retailer is "Demonstrate all over the area, plug the political broadcasts because farmers are certainly interested in such things, and be sure to present a complete outline of the



Emerson model 359 for \$29.95 uses single-unit battery pack, and wired for AC-DC.



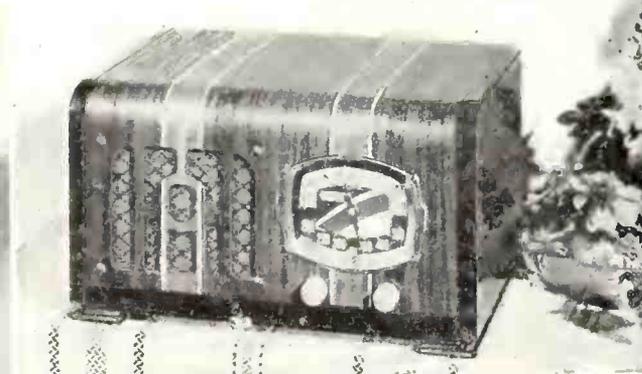
At extreme left, the new Sentinel record player 244-G, plays thru battery sets, no extra drain.



Left, the Crosley Glamor-Tone 36AM, superhet with 1,000 hr. battery pack housed in cabinet.

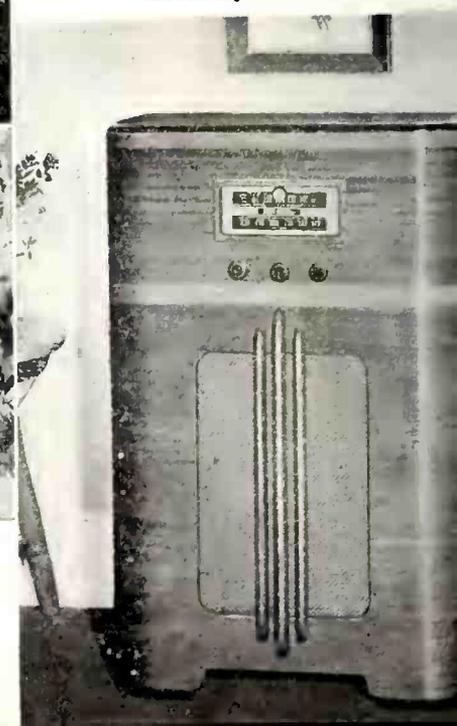


City-styled 4-tuber by Admiral, a 1½ v. superhet in plaskon cabinet.



In a cabinet of figured walnut is the Stewart-Warner 4C1, with 4 tubes and room for 1,000 hr. battery pack.

Below is RCA's 14BK console with 4 low-drain tubes, battery-saver switch, and "Economy Blinker."



# THE FARM BUYER

economical operation of the new farm radio jobs."

Returns from annual harvests are important in these sections, and that's the time when dealers exert selling energies to get cash payments for radio products. Farmers are frugal buyers and many of them have mail-order purchasing habits, but if a friendly, alert dealer is on hand with an enterprising account of what his products will do for the farmer in this new season, that dealer gets the gravy.

In other areas where products of battery set users are more diversified, dealers report different techniques. A retailer in Brunswick, Me., for instance, is going to town with a time payment plan and in one case at least he has sold practically an entire community the same battery set. When collections are being made for non-radio merchandise, the men take along a demonstrator model radio.

## BUYING SPREE

M. H. Canfield, of Radio Service Labs, Portland, Me., does business with many dealers who are selling to farmers, and he reports that "Since the 1.5-volt tube caught on, the farm radio business is the best that it has been in five or six years."

This distributor has a \$5 A-and-B battery pack which sells like hot cakes, and he's also featuring a new table model radio in the \$25 price range which delivers the goods. This set competes nicely with the mail-order jobs, and nearby dealers are getting plenty of results with it.

## UNSOLD MILLIONS

Total occupied farms . . .	6,500,000
Farms without radios . . .	4,000,000
Total electrified farms . . .	1,786,000
Farm population . . . .	32,000,000

Mr. Canfield declares that farm folks can be depended upon for consistent interest in broadcasts of weather reports, political news, hill-billy music, and market news. They want all this to come in clearly and dependably, without too much cost to them, and they want a cabinet that is pretty close to those used by city cousins. They will shy away from a radio that looks too plain. These facts arise from this jobber's experience with dozens of dealers in the business.

## MANY CHANCES FOR SALES

Certainly not all of a dealer's farm sales are straight battery sets. The Rural Electrification Administration now has loan funds available for the fiscal year which will permit the construction of 92,000 miles of rural distribution lines. And the newly electrified farmers will want radios; in the new utilization survey just made by REA, it was found that nearly nine

out of ten farms of REA-financed electric lines have radios.

As for the change-over from battery power to high-line supply, which may have worried some farm radio buyers in the past, the manufacturers in the field have now solved the problem and have put dealers in a real sales-making position.

## CONVENIENCES READY

One manufacturer outlines the situation as follows: "At nearly every stand of the REA Farm Equipment Tour, known as the REA Traveling Circus, you will find an aggressive jobber or dealer who is displaying and demonstrating our device which enables the farmer who has received electrification to operate his battery radio from the high lines.

"These radio men report great interest and extremely satisfactory sales, while the cost of their exhibition is comparatively low. Dealers make sales during the show, and secure many leads. Sometimes it is a question of the farmer's wife wanting a refrigerator and the farmer himself a new radio. By suggesting that the farmer buy the refrigerator for his wife, and put our device in his radio, all members of the family can be satisfied."

Many of the new farm models are already convertible for power line operation. These can be dramatically demonstrated by the dealer and many a farm person will decide that it's no good waiting any longer, before buying a new set.

(Continued on page 39)

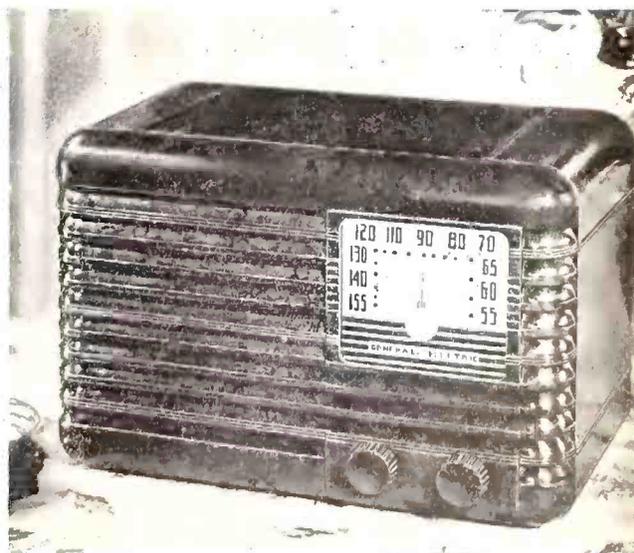
Massive Motorola 40BK convertible for AC use.



A Philco with six tubes, directional loop aerial, push-button tuning. Gets short-wave. 110K.



General Electric JB-420 comes in mahogany plastic, with "Dynapower" speaker.





Eye-filling beauty and dignity combined in Westinghouse's new automatic radio-phonograph, WR-484. Plays 10 and 12-inch records; Twelve-inch electro-dynamic speaker.

# NEW LURE FOR

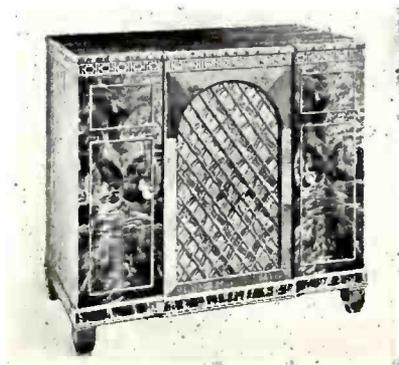
*Fresh models will intrigue buyers with the tops in home entertainment*

record changer, crystal pickup, built-in album file. Plays fourteen 10 in. or ten 12 in. records. Georgian period cabinet in swirl mahogany, figured walnut or blonde mahogany. Stewart Warner Corp., 1826 Diversey Pkwy., Chicago, Ill.—RADIO TODAY.



### Capehart '41 lines

★ Two new automatic phono radio lines, the Panamuse, and Deluxe, include 12 models in the former and 9 in the later. Both period and modern cabinet styles. Deluxe Regency above has FM-AM, 30 tubes, dual speakers automatic changer. Panamuse model 16K4, 10 tubes in 20th Century cabinet. Capehart Div., Farnsworth Radio & Tele-Corp., Ft. Wayne, Ind.—RADIO TODAY.



### Admiral Magna-muse

★ Model R59-B11 11-tube automatic record changer, recorder, and radio has 5 band tuning from 545 kc. to 15.3 mc. with band-spread tuning of 19,25, and 31-meter bands. RF stage, 12-inch speaker are used. Continental Radio & Tele. Corp., 3800 Cortland St., Chicago.—RADIO TODAY.



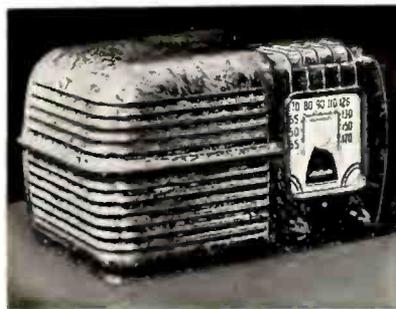
### Sentinel radio phono

★ Automatic combination phonograph model 220F in Hepplewhite cabinet has 7-tube chassis, 535 to 1,600 kc., and 5,750 to 18,300 kc. Record player handles 10 and 12 inch records, crystal pickup. Model 221-F has 8-tube 3-band radio. Sentinel Radio Corp., 2020 Ridge Ave., Evanston, Ill.—RADIO TODAY.



### SW Concert Grand

★ Ten tube, AC, superhet radio-phonograph, model 10A10, has 3 bands, 12 in. electro-dynamic speaker and built-in magic antenna. Automatic



### Motorola plastic model

★ No. 56XA1, 5-tube, AC-DC superhet. 5 in. speaker, 4 push buttons, "Aero-Vane" loop. Brown plastic cabinet. Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill.—RADIO TODAY.



### Farnsworth 10-tube console

★ Model BC-103, 3 wave-band console has Color-Tone control & Hi-Spot dial, shielded rotatable Bilt-in-Tenna with Tenna-Rotor and 12 in. speaker. Farnsworth Telev. & Radio Corp., 3700 Pontiac St., Fort Wayne, Ind.—RADIO TODAY.

# YOUR PROSPECTS

Thousands of folks will want these  
to bring in the Fall broadcast fare



Convenience and performance is featured in new brown-cased "Candid" by Sonora Radio & Tele., 2626 Washington Blvd., Chicago. Has built-in loop, low drain miniature tubes.



### RCA Victor model 16T4

★ A new table model having 6 tubes, three bands, built-in magic loop antenna. Victrola and television attachment, 5 station automatic electric tuning. Solid mahogany and walnut veneers. RCA Mfg. Co., Front & Cooper Sts., Camden, N. J.—RADIO TODAY.

5 in. Dynapower speakers, 2 bands and a tone monitor circuit, and is equipped for a wired record player. Resembles 18th Century treasure chest. General Electric Co., 1285 Boston Ave., Bridgeport, Conn.—RADIO TODAY.



### Rock-Ola model RA-4

★ One of six new combination radio, recorder, automatic record player units priced at \$99.95. Designed for home use; wide angle sound distribution and record storage space are featured. Crystal pick-up and cutting heads. Rock-Ola Corp., 800 Kedzie Ave., Chicago, Ill.—RADIO TODAY.



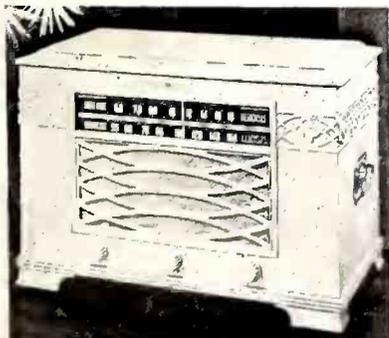
### Philco table radio

★ Model 226C six-tube two-band set has new XXD triode tube, 6 push buttons, built-in loops for standard and short-wave pick-up. Operates from either AC or DC. Band spread on short wave makes tuning easier. Modernistic wood cabinet. Philco Radio & Tele. Corp., Philadelphia, Pa.—RADIO TODAY.



### Emerson superhet

★ Walnut bakelite AC-DC table model, 343, with 5 tubes. Has 6½ in. electro dynamic speaker, enclosed super-loop. \$19.95. Emerson Radio & Phono. Co., 111 8th Ave., New York, N. Y.—RADIO TODAY.



### GE "treasure chest"

★ J-620, table radio in blonde mahogany includes dual beamscopes,



### S-C table radio

★ No. 500-S for AC-DC operation. Built-in loop, airplane type pointer dial, A.V.C., dynamic speaker. Walnut cabinet. \$34.95. Stromberg-Carlson Tel. Mfg. Co., 100 Carlson Rd., Rochester, N. Y.—RADIO TODAY.



### Autocrat elec. phono.

★ An AC portable elec. phono. model EPP-6, has 2-tube high fidelity amplifier, crystal pickup, heavy duty P.M. speaker. Record-carrying pocket. Blue or brown rawhide grain case. \$14.95. Autocrat Radio Co., 3855 N. Hamilton Ave., Chicago, Ill.—RADIO TODAY.

# RECORD-MAKING PROFITS

*Home recorders appeal to all members of the family and represent big-scale opportunity for dealers*

Plenty of dealers are now thinking about the family unit, as a factor in the home recorder market.

Question is, what to say to the husband, to get him interested in the new instruments. And how to approach the wife, on the subject of making records that she needs. Then there's the college and high school branch of the family. Not to mention the youngsters. All of them need recorders.

Every retailer has a string of families on his store lists. To dig them out and tell them about the exceptional talents of the handsome new record-makers is a profitable project as the Fall season for home entertainment gets under way.

Customers who have bought other products from the radio man, whether in the record, sound, musical or appliance departments, are on the lists. Newcomers to town are added. Names of more prospect families come from those who have already bought recorders. There's a big job to do.

## **SELLING THE MRS.**

The woman of the house can be sold on a number of ideas for the use of a recorder in her affairs. She may send invitations to her parties on records. Or she may make the recorder the cen-

ter of some novel entertainment when she entertains her club.

If she belongs to musical clubs, she will want to make records of complete recitals, or particular performances of her friends. Or she may use the recorder to make a permanent record of her own musical progress.

Further, she may be searching for ideas on how to keep her children busy and entertained. The novelty and the fun connected with children making records of their own voices will solve a lot of problems of discipline and will get the youngsters involved in a project that is good for them.

## **WHAT THE MR. WANTS**

The head of the family will like the suggestion that the home record-maker can be actually useful to him. He may record sales talks, business speeches, or he may practice up on his club talks.

Many gentlemen like the idea of taking broadcasts off the air. News reports, political speeches, or sports programs will be interesting to him, if he can make his own personal collection of records. Dealers have reported, too, that the Mr. likes to play around with the idea of making a mechanically perfect record of family events. For the same reason that he uses a camera, or takes home movies.

The young lady in the family will have dozens of ways to use recorders. She will find them to be gay fun-makers at her parties. She will be using records as birthday, holiday or vacation greetings. And of course if she is involved in any kind of voice or musical training, she will be making dozens of records to be able to hear her own performances. Perhaps more than any other member of the family, she is determined to be up-to-the-minute in "smart" practices, and will take to the idea of personal records as a fashionable trend in the alert younger set.

## **YOUNG MAN'S FANCY**

Whether college or high school age, the young fellow in the family is the one to exhibit resourcefulness in the use of the recorder. He'll be collecting the tunes played by his favorite dance band, and he'll want to collect the remarks of broadcast comedians. The mechanical ability of the machine will appeal to him, just as it does to his father, and he'll be trying to make better records than the disc factories turn out. Probably the lad will get interested in novel sound effects for use in home recordings (the manufacturers will help him with dozens of these) and will get deeper and deeper into the hobby.

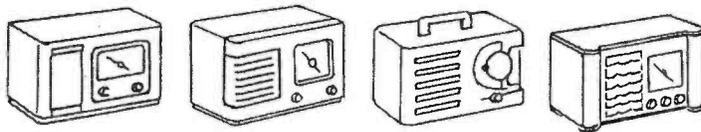


Here's a part of the family enjoying the RCA VHR-207 recorder, 9-tube instrument with convenient, divided lid.

The Federal recorder model 306 has push-button control for all operations, radio, phonograph, home broadcaster.

# Sonora for 1941

THE COMPLETE RADIO LINE  
NEW "FIRSTS"—NEW WINNERS

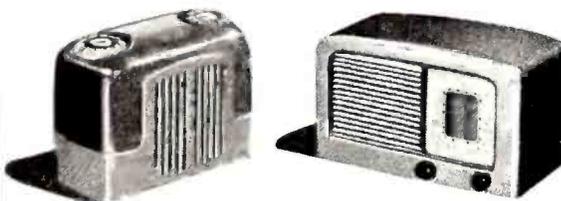


## 32 OUTSTANDING MODELS HOT "PACKAGE PLAN" NUMBERS COMPLETE JOBBER SERVICE

FIRST FOR 'FORTY-ONE! A once-in-a-blue-moon line—a COMPLETE in-demand line! Plastics, "Gems," wood table models, big console values, combinations, recorder, wireless players, electric phonographs, "CANDIDS," triple-play portables, farm radio, auto radio—SONORA has the right answer for every radio need! Yes, SONORA is "all there" for 1941—right in engineering, in styling artistry, in beauty of tone—right-priced, too, for today's market. And you can't beat the advantages of SONORA'S over-the-counter Package Plan and desirable jobber policy—they spell the outstanding Radio Profit Opportunity for 1941!



**Model KXF-95.** 6-tube A.C. Radio Phonograph. Foreign and domestic bands. With built-in Sonorascope, 10-inch Speaker. Includes Automatic Mixer-Changer for 10 and 12-inch records. Massive console of choice walnut woods; 32" x 32" x 15".



**Model KF.** The new "Little Gem." A new jewel-like note in radio styling! Plastic design in duotone colors—available in three striking 3-color combinations. 4 Tubes. Tunes 535—1720 K.C.; P.M. Speaker. Size: 5 1/8" x 7 3/4" x 4 1/4". Radio's most striking compact!

**Model KT.** The "Cameo"—a 1941 Radio! New, original, beautiful. Available in unusual duotone effect—tan front, brown back—or in ivory. 5 Tube AC/DC Superhet; 535—1712 K.C.; 5" P.M. Speaker; built-in Sonorascope; big new dial. Size: 6 1/2" x 10 3/4" x 6 1/4".

\$9.97 to \$129 LIST  
MODELS FOR  
EVERY PURSE  
AND PURPOSE



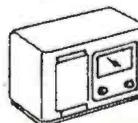
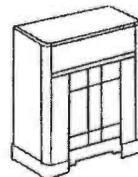
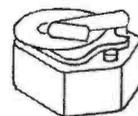
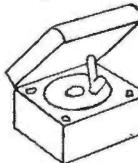
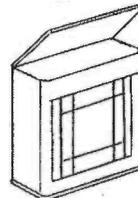
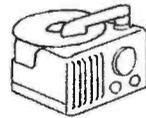
**Model KY-94.** 7-Tube A.C. Superhet Console de Luxe. Three band coverage 535—1720 K.C.; 2.2—7.5 meg.; 7.25—24.0 meg. Built-in Sonorascope—works on all bands; Push-Button Tuning—choice of six stations; 10" Dynamic Speaker; Slide-rule Dial; phono and television connection. Magnificent new walnut console, smartly styled and beautifully finished. Size: 39" hi-h, 26" wide, 12 1/2" deep.



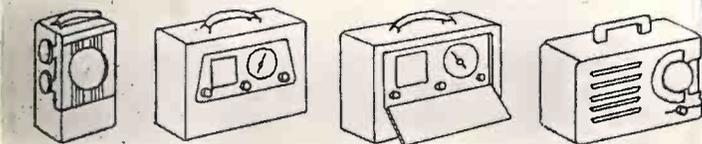
**Model KNF-99.** 5-Tube AC/DC Phonograph-Radio. Tunes 535—1720 K.C. Built-in Sonorascope; 5" P.M. Speaker; big Airplane Dial; 9" turntable; Crystal pick-up; automatic record stop; plays 10" and 12" records with lid closed. Walnut cabinet; 9 1/4" x 14 1/2" x 11 1/2".



**Model TT-128.** 5 Tube A.C. Superhet. Tunes 535—1720 K.C. Has built-in Sonorascope; Slide-rule Dial; Push-Button Tuning; 5" Dynamic Speaker. Presented in a distinguished table model cabinet of fine walnut woods with sweeping end design. Size: 16" x 7 1/2" x 8 3/4".



Write for details covering the complete SONORA line for 1941.  
SONORA—A Great Name Since 1914!



**Sonora**  
The Clear as a Bell Line  
2626 W WASHINGTON BLVD., CHICAGO, ILL.

# DOLLARS IN DISCS



A spotlighted waltzer attracts notice for the Columbia "Waltz Time" album, plus a handsome combination. A record corner at Schuster's, Milwaukee.

## RIGHT NOW IS IDEAL TIME FOR MORE PROMOTION OF RECORDS

Aggressive action is appropriate for the late weeks of August, if the merchandiser of records is to nab the exceptional profits of this season.

Immediately after Labor Day on Sept. 2, the buying habits of people change substantially, and the dealer in discs must be abreast of the trend.

Vacations are over, and customers' thoughts are turning to home entertainment. Week-ends are numbered, and approaching winter means that outdoor activity is about finished. Plans for the fall social season are on the way.

The youngsters will soon be returning to school, and the college folk are making plans for new terms.

If the dealer will breeze into this kind of a situation with a hearty promotion schedule on his records, radio-phonographs, players and accessories, the returns will be far more substantial than in previous years.

### ADJUSTMENTS NOW

As for the folks who will be choosing their music at home, they will now have more time and more appetite for the entertainment of their choice. Buying of records will get more serious consideration, and will involve more of an investment. If ever there was a time when the exact musical tastes of customers should be studied by the retailer of the "command performance"

music to be found on records, it is now.

Interest in recordings will be spurred by the autumn series of concerts and recitals which are commonly held in typical communities. The old favorite composers of classic selections return for another round of applause.

When certain composers are being played locally by these groups, the dealer must watch the calendar of musical events, and let all his prospects know exactly what is available on records in the same group.

Many of the top concert artists will go back on the air in the early fall, and will create a renewed interest in their art. Dealer tie-ups with special broadcast musical programs will be profitable.

The radio fan interest in popular records will likewise be boosted as big broadcast shows in a lighter vein open up in early September. Extra buyers will be coming to record counters for the newest releases of favorite radio stars and hit tunes which they heard over the air.

Now that automatic record changers have been engineered to practical perfection and attractive prices, the idea of playing a number of records continuously as a kind of a personally selected program for home entertainment becomes a more important one.

Whether families make a practice of this for their own entertainment, or for the amusement of guests, the stunt involves a larger number of records, a good instrument to reproduce them, and therefore an excellent bet for the dealer.

Dance programs of this sort will be appreciated by the younger set, and the new albums available for children will fit in nicely. It is part of the dealer's job to suggest interesting groups of records for this purpose, in cases where the customer has, or is considering, an automatic record-changing instrument.

This is one instance in which the regular record lists which come from the manufacturers may need to be studied and re-arranged. It will require some special alertness and resourcefulness on the part of the record man, to tailor the listings to the needs of individual customers.

### COLLEGE MARKET

Sales-minded record men are now going to work on the fact that in the coming weeks the college students will decide what luggage will be taken back to the campus. Record players, albums, packs of popular records, and accessories are what they want.

Names of these students can be secured from old customers, from local university club leaders, and from newspaper stories. It is important that direct mailings and window displays directed at this group be streamlined and up-to-the minute and colorful in appeal.

If July was too early, and if September is too late for the dealer to undertake a special promotion of records, then these latter weeks of August are marked as a time of hearty activity.

### Wax Worth Watching

MARCO ROSALES with guitar accompaniment singing Blueberry Hill—Varsity 8338.

SHEP FIELDS and his Rippling Rhythm playing Who's Yehudi? with VR by Mr. Fields, Dorothy Allen and Hal Derwin—Bluebird B10762.

BEN BERNIE and his orchestra playing The Gentleman Needs a Shave with VC by Mr. Bernie and Bailey Sisters—Vocalion 5615.

HORACE HEIDT and his Musical Knights playing The Voice in the Valley with VC by Larry Cotton—Columbia 35544.

JIMMY DORSEY and his orchestra playing I Bought a Wooden Whistle, with VC by Helen O'Connell—Decca 3280.

CONNIE BOSWELL with orchestra singing Orchids for Remembrance—Decca 3277.

VAN ALEXANDER and his orchestra playing Jungle Jive with vocal by "Butch" Stone—Varsity 8335.

VINCENT LOPEZ and his Suave Swing orchestra playing Charlie Was a Boxer, with VR by chorus—Bluebird B10791.

TOMMY DORSEY and his orchestra playing I'll Never Smile Again with VR by Frank Sinatra and the Pied Pipers—Victor 26628.

# FARNSWORTH DEALERS GET THIS EXTRA PROFIT!



## WITH THIS CAPEHART-FARNSWORTH AUTOMATIC RECORD CHANGER

This startling, new Capehart-Farnsworth Automatic Record Changer (Model BP-2) cracks the radio market wide open . . . gives you an opportunity to make *another* sale—a *profitable* sale—to customers who have already bought a radio. • It will increase sales in your record department. A dramatic home or showroom demonstrator, it gives you a chance to **SELL-UP** these record customers to a Farnsworth phonograph-radio.

### FOR A BOOMING MARKET!

Realizing the promotional possibilities to the dealer of an Automatic Record Changer attachment, Farnsworth introduced this startling value at its June convention. It went over big—has continued to be a great sales producer, outstanding even in the broad Farnsworth line.

### THEY TRY IT—THEY BUY IT!

Model BP-2 is the famous Capehart-Farnsworth Record Changer housed in a beautiful cabinet that will harmonize with the design of any quality radio receiver. It plays fourteen 10-inch or ten 12-inch records automatically. One of the quietest changers ever built, its mechanism is simple and fool-proof. A demonstration always means a sale.

### ★ ACT NOW! ★ ★ ★

The Capehart-Farnsworth Record Player, like the entire Farnsworth line, is priced to *move*. It's competitive . . . and **HOT!** Get the profit-producing facts from your Farnsworth distributor this very week! Farnsworth Television & Radio Corporation, Fort Wayne, Indiana.

## FARNSWORTH...MAKERS OF RADIO AND TELEVISION TRANSMITTERS AND RECEIVERS, THE CAPEHART, THE CAPEHART-PANAMUSE AND FARNSWORTH PHONOGRAPH-RADIO COMBINATIONS



**THE GAINSBOROUGH** is typical of the style, performance, and value of the broadest combination line in the industry—Farnsworth.



**DISTINCTIVE STYLES**—Outstanding values in every console price bracket—providing real demonstrable, sales-making features.



Farnsworth also combines styling with performance and outstanding value in a complete table model line of both wood and plastic cabinets.



Another Farnsworth innovation—an Automatic Phonograph-Radio Combination in Chairside model that has everything—including a low list price.

### ★ TYPICAL FARNSWORTH VALUE LEADERS ★

# NEW SOUND PRODUCTS

P.A. equipment for your Fall season



## Erwood portable amps.

★ Two new mobile amplifiers, model 2428, a 28-watt unit with built-in turn-table (illustrated) and model 1414. Both units may be operated from 6 volts DC or 110 volts AC. 1414 is available with or without turntable top. Universal output impedances. Erwood Sound Equip. Co., 224 W. Huron St., Chicago.—RADIO TODAY.



## Mellaphone recorder

★ Low priced recorder has 4 tube amplifier, "eye" tube volume indicator, telephone line connections for recording conversations. Crystal mike; space requirements, 10 x 15 inches. Mellaphone Corp., Rochester, N. Y.—RADIO TODAY.



## Webster pickups

★ Four new items include two recording heads, R83 and R84 have frequency range from 30 to 8,000 approximately, input power of 1 watt, impedances from 1 ohm to 5,000 ohms on R83. Crystal pickup XS2A has range from 30 to 8,500, 80M ohms. XS2 crystal cartridge available in 5, 6, 8, and 10 thousand cycle ranges. 80M ohms. Webster Electric Co., Racine, Wis.—RADIO TODAY.

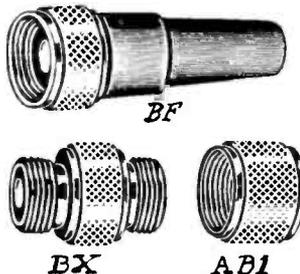


## Amphenol mike switch

★ No. MC1S crystal mike switch may be used as push-to-talk, or locked in "on" position. Silver plated switch parts. Has coupling ring for cable end, and threads to fit standard mike connectors. American Phenolic Corp., 1250 W. Van Buren St., Chicago.—RADIO TODAY.

## Universal recorder

★ Recorder kit includes medium power amplifier, precision cutting head, lead screw. All equipment designed to attach to any good phono turntable. Model KO. Universal Microphone Co., Inglewood, Calif.—RADIO TODAY.



## Selectar connectors

★ Line of connectors for speaker and other circuits have 1/2-inch 27 thread couplings to prevent mixing with standard mike units. Better contact, surer and quicker connections are featured. Available in "baby" and standard sizes. Selectar Mfg. Corp., 30 W. 15th St., New York, N. Y.—RADIO TODAY.



## Oxford small PM

★ Model 32M-CA cased Permag speaker measures 4 1/2 x 4 x 1 7/8 inches. Walnut bakelite case supplied with mounting bracket. Model 32M-CM is especially designed as dynamic mike. Oxford-Tartak Radio Corp., 915 W. Van Buren St., Chicago.—RADIO TODAY.



## Clarion portable PA

★ Model CS-25 delivers 17 watts. Mike gain is 112 DB, frequency range, 50 to 10,000 cycles. Output impedances, 2 to 500 ohms. System includes 2 10-inch speakers, choice of one of 4 mikes, all cables, plugs, carrying case. List \$111.57. Transformer Corp. of America, 69 Wooster St., New York, N. Y.—RADIO TODAY.

## Kirkland panel lamp

★ New moulded plastic panel lamp has same color shell and lens cap to prevent switching of indicating colors. T2 unit available in five colors. H. R. Kirkland Co., Morristown, N. J.—RADIO TODAY.

## RCA recorder discs

★ Phonogram is 6 1/2-inch disc, flexible paper core, slow-burning shavings, low surface noise. Blue and buff lable takes both ink and pencil. Convenient mailing envelopes are available. Retail price 7 for \$1.05. RCA Mfg. Co., Camden, N. J.—RADIO TODAY.



## Jack chime unit

★ Automatic chime timing unit pre-heats amplifier and strikes chimes every 15 minutes. A day-night clock is used to silence equipment during part of night. Complete amplifier and chime equipment is also available. Charles Jack Mfg. Corp., 27 E. Philadelphia St., York, Pa.—RADIO TODAY.

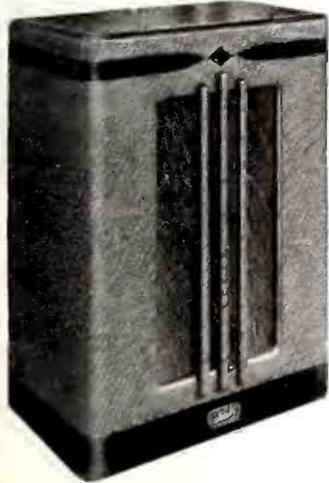


**Utah**  
**PUBLIC ADDRESS REPRODUCERS**  
**GET THE VOTE!**

● You, too, will give the new Utah Public Address Reproducers your vote when you see and hear them. They have won the immediate acceptance and approval of the industry.

Through these new reproducers, Utah

engineering and precision manufacturing have again scored an outstanding triumph. They include the latest and most worthwhile refinements in sound equipment construction. They provide an easy means of profitably meeting the most exacting requirements.



### Utah's NEW BAFLEX REPRODUCER

In the new Utah Baflex Reproducer, Utah engineering has incorporated all the latest developments and improvements of reproducers for public address systems, schools, colleges, taverns, dance halls, auditoriums, clubs, etc. They are available in four models.

These new Utah Public Address Reproducers are marked by a total absence of "back radiation." There is no distortion in the greatly improved bass response.

Two models are especially designed for television and Frequency Modulation receivers which require a wide audio frequency range. The frequency response has a range up to approx. 9500 cycles per second.

The cabinets are of sturdy, extra-heavy construction, scientifically designed to eliminate cabinet vibration and resonance. The cabinet design is strikingly modern, with an attractive, durable satin bronze finish.

### THE NEW Utah BI-DIRECTIONAL SPEAKERS

The Utah Bi-Directional Speaker embodying the latest speaker design and construction features, has been especially developed and engineered for factory call and paging systems.

Their sturdy construction and improved

design combined with their popular price make them ideal for factories, hotels, clubs, etc. The baffles are molded, non-metallic. There is no excessive low frequency response to distort intelligibility. A swivel joint bracket assures correct mounting.



### Utah's NEW WALL REPRODUCER

The new Utah Wall Reproducer is the effective solution for sound systems that require a reproducer for music as well as voice. Its low price makes it an economical one as well. The finish blends with any decorative scheme.

The tone quality has been immeasurably improved by the molded, non-metallic housing. Ideal coverage of a given area is assured because of the scientifically engineered angle of this new Utah Wall Reproducer.



### AND 107 OTHER UTAH SPEAKERS

In the balanced line of Utah Speakers there is a speaker to meet every requirement. Utah engineers will be glad to help you solve your speaker problems.

### WRITE FOR CATALOG

Be sure to have complete information about Utah Speakers; write today!

UTAH RADIO PRODUCTS COMPANY, 814 Orleans Street, Chicago, Illinois.  
 Canadian Office: 560 King Street, West, Toronto. In the Argentine: Ucoa Radio Products Company, S. R. L. Buenos Aires. Cable Address: Utaradio, Chicago.

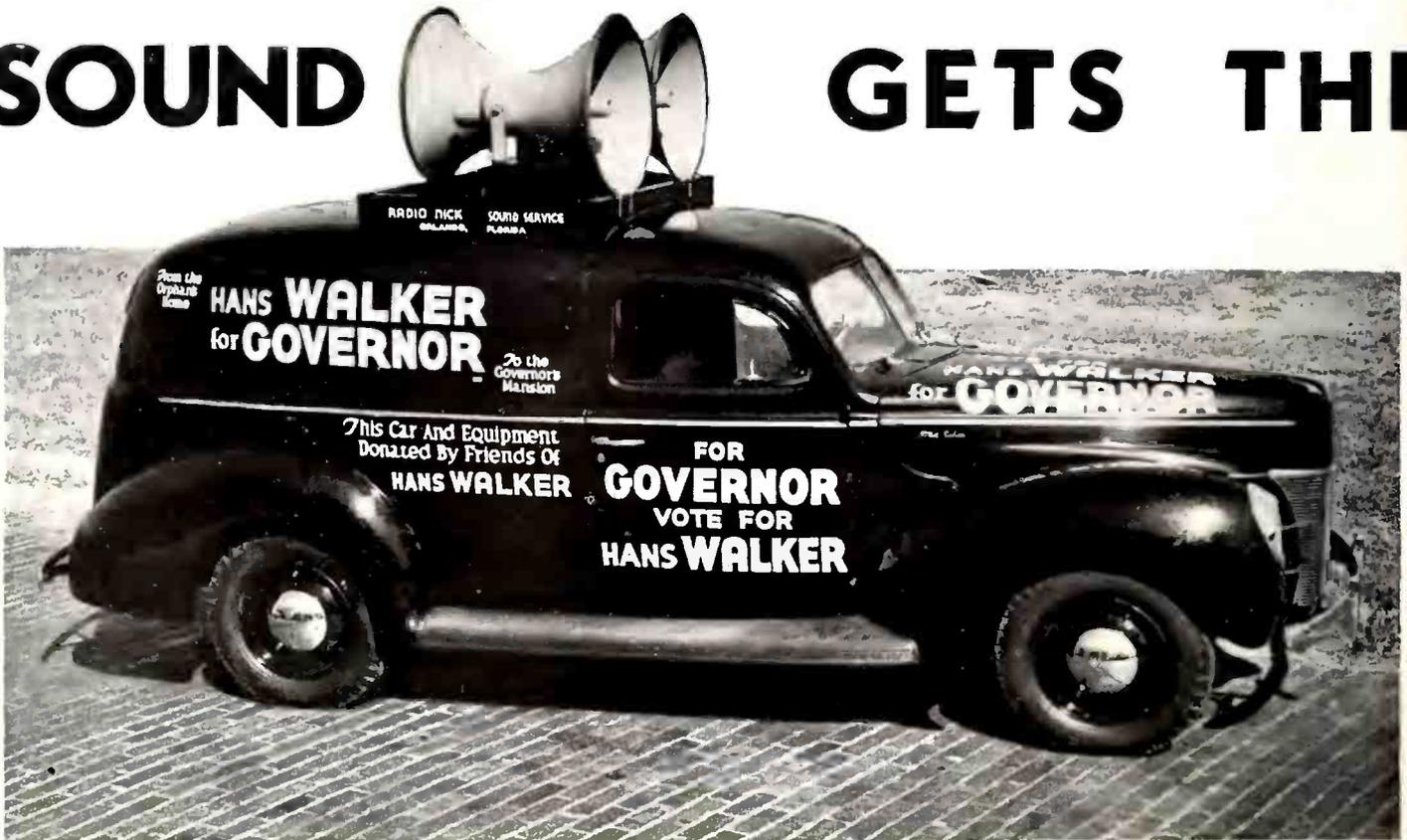


# S P E A K E R S

VIBRATORS • TRANSFORMERS • UTAH-CARTER PARTS

# SOUND

# GETS THE



Truck sound-equipped by Radio Nick, Orlando, Fla., was purchased by friends of the candidate. Original installation, operation, and maintenance are profit sources for the sound man. Speakers are University Labs.

Mobile public address systems are being "dolled up" for the local and national balloting soon to get under way. Dealers the country over are organizing equipment, making contacts with campaign officials, and getting ready to claim their share of election funds.

Plenty of novel ideas have clicked in recent elections, the "Hill Billy band campaign" of a southern state governor for instance. All of these stunts attract attention—and that is what PA is for—attract attention and put across a message. Sound men who can come through with a few suggestions for creating added interest with special effects are the ones who will "clean up."

#### SOUND MEN ACTIVE

David B. Dean, distributor of Taunton, Mass., has some good advice and methods for the election and general Fall sound business. He predicts a good PA market with unlimited opportunities.

For political PA business, Mr. Dean has found that campaign managers are the ones to contact. He points out that political campaign expenditures are often influenced by "pull" considerations beyond the control of any sound man, so that it is often wise to contact the whole group of executives connected with the event where the equipment is used. Also, sound men must tactfully convey the idea that they want prompt payment, whether the client wins or loses at the polls. Losers are often slow to pay.

"Sound tracks and rentals are the most practical and valuable means for a sound man to use in advertising

himself these days," is the opinion of Mr. Dean.

Many sound and servicemen are doing a double job of putting across both of their services through advertising on their mobile equipment.

#### ADVERTISING STUNT

For an average operator who may not wish to lay out large cash amounts for direct mail promotions, Mr. Dean says that a sound man should plaster his name on his sound truck, get in a plug on all the mikes used in front of crowds, and go after the rental business as a means of getting established among the local users of PA.

In cases where Mr. Dean has supplied mikes for well-known public speakers, he has used his name writ-

ten vertically along the stem of the mike and the result is that the "Dean" credit line has appeared prominently in newspapers. Now, when he bids for local jobs, he may have an edge on some of the others.

A certain emphasis on rentals will get the sound expert into a bigger variety of jobs, and will put him in contact with more prospects than can be met in making permanent sales. And each rental may become a link with other rentals, or with added sales of equipment. This is the "promotion" advice of Mr. Dean, who adds that it is also a very good idea to be listed in the classified section of the telephone directory.

The orchestra business is one of the cleanest branches of the sound business, in the Taunton area, at least. New PA kits put out by the manufacturers are found to work best for these spots. Orchestra leaders or managers are the buyers; they take the equipment along with them, and they like packaged jobs. Good pay, year 'round demand, and few installation problems are the qualities of this market.

#### NEW MARKETS

New opportunities in selling sound in the New England areas also include the "auto theatre" jobs. Whether it is a matter of a single string of speakers at the top of the huge picture screen, or a job where the speakers are scattered among the cars, depends upon the local ordinances, but in either case the installation is a big-scale affair. Most theatres accommodate about 1,000 cars; control booths are often underground.

## SOUND SUGGESTIONS

1. Organize mobile and portable equipment for immediate use.
2. Prepare several "stunt" ideas for novel campaigns.
3. Sell campaign managers and party officials your services.
4. Let your equipment advertise your business.
5. Enter new sound markets.

# VOTES

Another sound dealer who is doing a grand job with mobile sound in election campaigning is Radio Nick, Inc., Orlando, Fla. Besides the field of rental PA equipment, he finds the sale of complete sound trucks very profitable from initial installation, maintenance, and operating stand-points. Various alternatives of these services prove a broad field for all sound men.

## TYPICAL MOBILE PA

The Ford truck has three model LH reflex trumpets driven by PAH permanent magnet 25-watt speakers. Speakers and trumpets are products of University Laboratories, New York.

The speakers are mounted on a wood frame shaped to fit the contour of the truck top. A center cross member carries the swivel mounting bracket. The trumpets are held securely to the front and rear of the frame by short metal straps screwed to the wood and bolted to the horn. Secure mountings will be a good investment—wind pressure at even moderate speeds may tear off lightly mounted equipment.

## INSTALLATION FEATURES

Where the speaker leads pass through the roof of the truck or car, half-inch electrical conduit will provide the best water-proof feed-through. Thread back the conduit for a distance of about 2 inches; run on a nut, 1½-inch washer and rubber gasket. A nut and washer on the inside will pull up the conduit to a tight seal. Periodic inspection of the gasket will insure a good joint.

Billboard advertising is combined with sound-service in this truck of Robert F. Anderson, Jamaica Plain, Mass. Signs may be quickly removed and others put in their place for political campaigns, etc.



Method of mounting sound equipment in campaign truck. Note mounting rack for amplifier and cleat for cable at far right. Equipment installed by Olsen Radio Supply Co., San Antonio, Tex.

## NEW EQUIPMENT

Much new equipment is coming from the manufacturers to make better mobile and portable systems. Efficiency of 6-volt DC operation is increasing, thus making the systems more economical to run. Built-in turntables are practically standard equipment with mobile and light portable amplifiers. These units make it simple to outfit a sound truck on short notice. Built-in AC power supply systems double up the duty possibilities.

Mounting of amplifiers in trucks is important to the life of the equipment. Road shocks should be absorbed by rubber or spring mounts. A good example of mounting the amplifier is shown in the safety campaign truck

outfitted by Olsen Radio Supply, San Antonio, Texas. Roof-top speakers are two Jensen units in Atlas Sound Corp. projectors.

The Erwood model 1420 amplifier is mounted on a small stand. The top shelf extends above the sides for enough to act as stops for any lateral movement of the equipment. Note the neat wiring possible with standard fastening clips and also the wire reel cleat which keeps cables handy and out of the way.

## QUICK-CHANGE TRUCK

Another sound man who has some novel ideas with regard to mobile equipment is Robert E. Anderson of Jamaica Plain, Mass. Bob's truck, which features strongly in the political campaigns, is regularly used in his service business. The signs on the sides and back may be quickly removed and replaced with names of candidates. When not being employed for sound business, the "radio ambulance" idea is featured, and plenty of publicity results.

The truck was built around a sedan. A metal screen was built into the top for radio and PA tuner. Two speakers are mounted in front above the windshield, the trumpet unit in the rear has a red metal cross fixed on the bell.

In addition to this "moving" advertisement, Mr. Anderson uses the local newspaper, and distributed blotters to keep his name before the residents.

## ACT NOW

The election campaigns are going to be "hot." The time is growing short for lining up your equipment—your jobs. Go after the campaign managers, the local politicians themselves, and sign them up for a "sound" program. Patriotic records, and recordings of the candidates' speeches can be used for real effectiveness. Concentrate your efforts now on plans for the greatest season for PA.



BRAND NEW  
RADIO  
CIRCUIT

NEW  
KIND OF  
OVERSEAS  
WAVE-  
BAND

NEW  
NOISE-REDUCING  
XXL  
CONVERTER  
TUBE

BUILT-IN  
AMERICAN  
AND  
OVERSEAS  
AERIAL SYSTEM



# Only PHILCO NEW SALE

## Radios that set New Standards of Performance and Value!

For 1941—the “hottest” line in Philco’s long history of leadership... that’s the universal verdict of the trade! A brand-new circuit... a New Kind of Overseas Wave-Band... more tubes for the money... bigger speakers... a complete variety of beautiful cabinets to suit every taste and price. Yes, in every bracket, the greatest values, the most *saleable* line in Philco history!

MORE TUBES  
FOR THE  
MONEY

BUILT FOR  
TELEVISION  
SOUND  
AND FM

# PHILCO ALL YEAR 'ROUND F

HOME RADIO • PHONOGRAPHS • TELEVISION • AUTO RADIO • RAD

**O** gives you these  
**FEATURES**  
**FOR 1941!**

**NEW  
 PHOTO-ELECTRIC  
 RADIO  
 PHONOGRAPH**

**NEW  
 TILT-FRONT  
 CABINET**

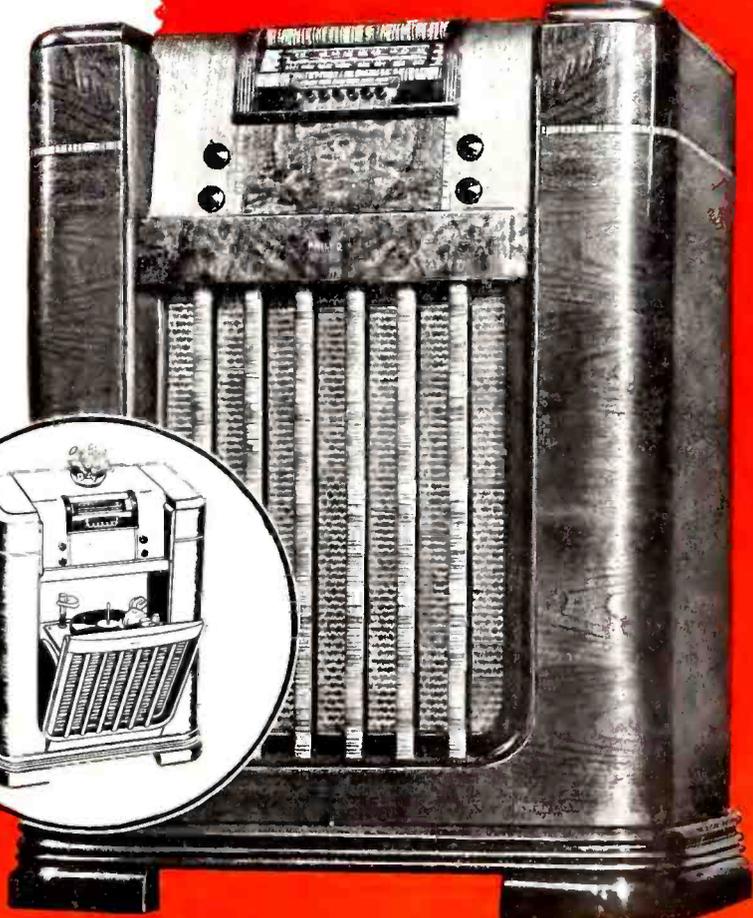
**RECORDS LAST  
 10 TIMES  
 LONGER**

**NO  
 NEEDLES  
 TO  
 CHANGE**

**Radio-Phonographs that Play Any  
 Record on a Beam of Light!**

Philco offers the one and only NEW radio-phonograph on the market today. Music on a beam of light! No needles to change... record wear and surface noise reduced by 10 to 1... glorious new purity of tone. *Tilt-Front cabinet*; no lid, no dark, clumsy compartments. These are the features the public demands for 1941. *Only Philco has them!*

It's Philco again for 1941... get set to CASH IN!



**NET DESIGNS  
 FOR EVERY  
 TASTE**

**NEW  
 PURITY OF  
 TONE**

**PROFITS ALL YEAR 'ROUND**

**REFRIGERATORS • AIR CONDITIONERS • DRY BATTERIES**

# Only PHILCO gives you these NEW SALES FEATURES FOR 1941!

BRAND NEW  
RADIO  
CIRCUIT

NEW  
KIND OF  
OVERSEAS  
WAVE-  
BAND

BUILT-IN  
AMERICAN  
AND  
OVERSEAS  
AERIAL SYSTEM

NEW  
NOISE-REDUCING  
XXL  
CONVERTER  
TUBE

NEW  
PHOTO-ELECTRIC  
RADIO  
PHONOGRAPH

NEW  
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MORE TUBES  
FOR THE  
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BUILT FOR  
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CABINET DESIGNS  
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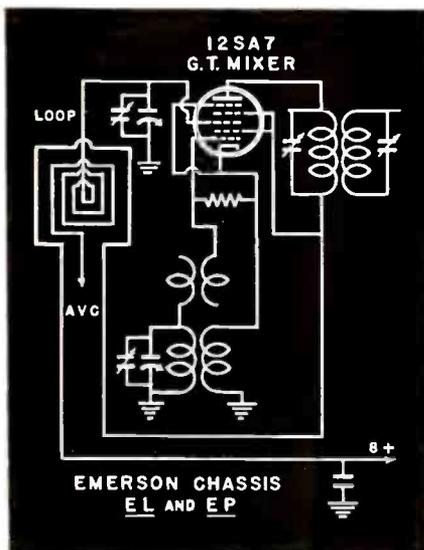
# PHILCO ALL YEAR 'ROUND FOR PROFITS ALL YEAR 'ROUND

HOME RADIO · PHONOGRAPHS · TELEVISION · AUTO RADIO · RADIO TUBES · PARTS · REFRIGERATORS · AIR CONDITIONERS · DRY BATTERIES

# SERVICING '41 SETS

**Band-spread tuning, triode mixer tubes improve short-wave reception. More gain in compacts.**

New Emerson models with EP and EL chassis have a novel circuit of feedback to increase conversion gain in the 12SA7GT converter tube. In the circuit diagram shown, signal energy from plate and screen circuit is inductively coupled to the loop antenna coil, thereby being fed back into the grid circuit to build up the output. As the loop is tuned to signal frequencies, the amplification through feedback will build up only the signal.



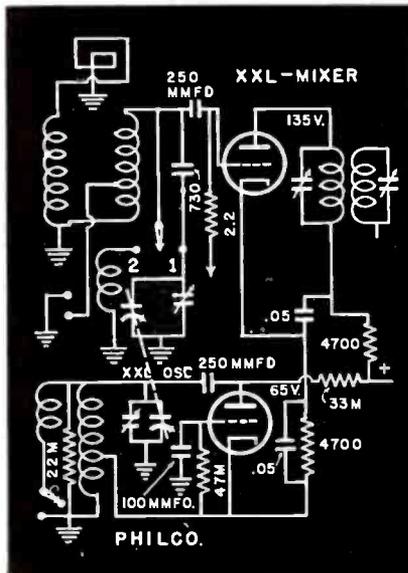
RF energy is coupled from plate circuit into grid circuit through loop antenna.

The oscillator grid of the 12SA7GT is capacity coupled to the oscillator coil through a few dead-end turns on the coil. A resistance test through the coil from the grid connection will show "open." Most of the Emerson models are using this type of coupling. Other changes in some '41 models include an un-bypassed cathode resistor in the output tube and a small feedback condenser from the plate to the cathode. This combination tends to boost the highs.

## TRIODE MIXER TUBES

Improved shortwave reception is being claimed for 1941 Philco sets using a newly developed triode, the XXL. The circuit of the oscillator and mixer in a typical model shows how loktal tubes are connected. The XXL has an amplification factor of 20-25, input capacity of 3.4 mmfd., output capacity, 2.6 mmfd. Plate voltage may be 100-250 volts with grid bias of 0 and -8 respectively. The plate current is 10 ma. at 100 v. while the plate resistance is 7,000 ohms and the gm is 3,600.

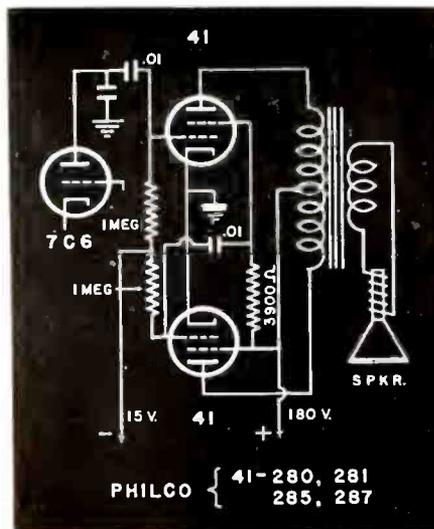
The oscillator voltage is injected in the cathode circuit of the mixer.



Special triode Loktal XXL tubes have less internal noise and give good performance on S. W.

Because of the simpler tube structure, a better signal to noise ratio results. Internal tube noise is less with single-grid tubes than for more complicated pentodes.

Other features of the new Philco's are low plate voltages in the order of 150 to 200; fixed bias developed across a power supply load resistor, and band-spread tuning for the 9-12 mc. range. The range of tuning condenser is cut down by putting a fixed mica capacitor of about 85 mmfd. in series with it. Fewer kilocycles per degree on the dial results, thus, less critical tuning is



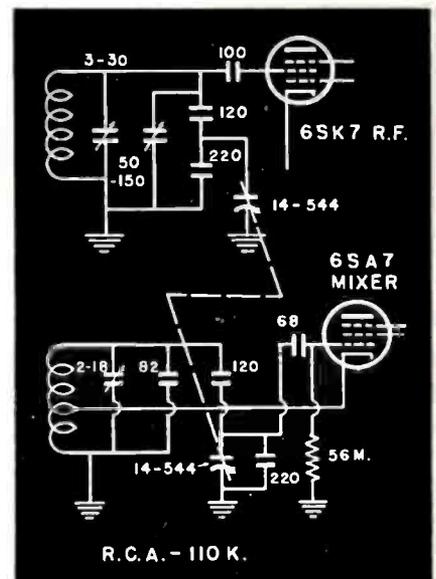
Combination push-pull amplifier and phase inverter. Screen grid of top 41 drives lower tube.

required, and shortwave listening is more enjoyable.

An interesting audio output stage is used in models 41-280, 281, 285, and 287. The push-pull 41's are driven by a single 7C6 straight amplifier. The screen of the upper 41 is not by-passed, but its signal energy is fed to the grid of the lower 41, thus acting as a phase inverter. Fixed bias from the power supply is used for the grids of the 41's.

## RCA OVERSEAS BAND

Easier shortwave tuning is the keynote of those models having the 31-



Expanded short-wave tuning band uses 120 mmfd. capacitor in series with tuning condenser on 31 meters.

meter expanded band. These receivers have the frequencies from 9.35 to 9.85 mc. spread across the entire dial. A combination condenser hook-up is used with the regular 14-544 mmfd. tuning gang in series with a 120 mmfd. fixed capacitor. The tuning condenser is paralleled with a group of trimmers and fixed capacitors (see circuit diagram). The combination of condensers gives the tuning gang a very small range, as a little calculating will show. The total capacity of the tuning condenser at maximum and parallel pad ders is 856 mmfd. and this combination in series with 120 mmfd. becomes 100 mmfd. effective across the coil. When the tuning condenser is at minimum capacity, the series combination is 87.5 mmfd. thus giving a total change of only 12.5 mmfd.

This .5 mc. strip has a group of stations representative of many countries. Shortwave stations can be tuned in with as much ease as regular b.c.

(Continued on page 36)

# "OOMP!"

You can't find it in the dictionary . . . . but you can find it in **TODAY'S SIMPSON LINE**

If you saw Simpson Instruments at the show you saw something that ordinary words can't describe. In Hollywood they call it "oomph" . . . today's fast way of saying "more of everything".

The Model 400 Tube tester (opposite) is typical of these Simpson Testers that have more of everything . . . more class, more precision, more engineering against obsolescence. We studied your right-now testing problem; then solved it all the way in an instrument as modern as tomorrow.

Right down the line Simpson Instruments have been designed by and for your needs. A few leaders in the 1940 Simpson hit parade are briefly described here. All are covered by the handsome new catalog.

Ask for your copy

**SIMPSON ELECTRIC COMPANY**  
5216-18 Kinzie Street, Chicago, Illinois

**MODEL 310  
SIGNAL GENERATOR**

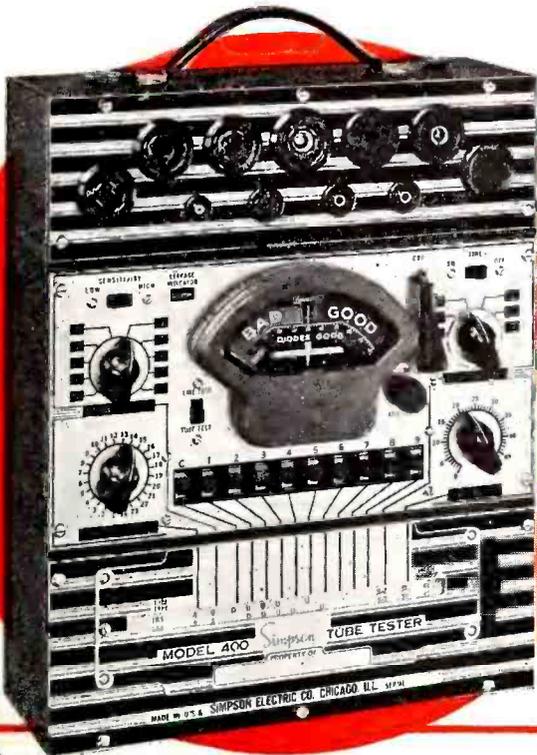
• Reports from independent laboratories prove this to be the most stable and accurate direct-reading signal generator ever offered at a price you can pay..... **\$37.50**



*See them at your jobber*

# SIMPSON

*Instruments that STAY accurate*



↑ **MODEL 400 TUBE TESTER**



Model 500

**N**EVER before have so many advanced features been combined in a tube tester. These features include:

**UNIT DESIGN**—the socket panel and the roll chart can be individually removed. Replacement units can be ordered for those needing reconditioning or replacement while you keep right on using the tester. Obsolescence affects only individual units—not entire tester. Old units can be returned for credit so that you can keep the tester up to date at low cost.

**SPARE SOCKETS**—Two spare sockets (one large and one small) are provided in addition to sockets for 4, 5, 6, 7 and 8-prong tubes, loctals, bantams, midgets and miniatures.

**VISUAL GUIDE**—Note guide lines that "tie in" roll chart with switches, preventing errors.

**THREE-WAY SWITCHING**—Each toggle switch has "off" position so that any prong can be left open. Valuable in testing tubes like ILNG or tapped filament tubes like 35Z5; also various sections of multipurpose tubes in present or future groupings.

**SPEED ROLL CHART**—Smoother, better operation than ever before. In addition to regular listing has numerical index which speeds up reading. Also has window for writing data for at least 50 new tubes on blank portion of roll chart. Entire chart easily and inexpensively replaced.

**YOUR NAME ENGRAVED ON THE PANEL**—Simply send us the plate. No charge whatever. **\$36.00**

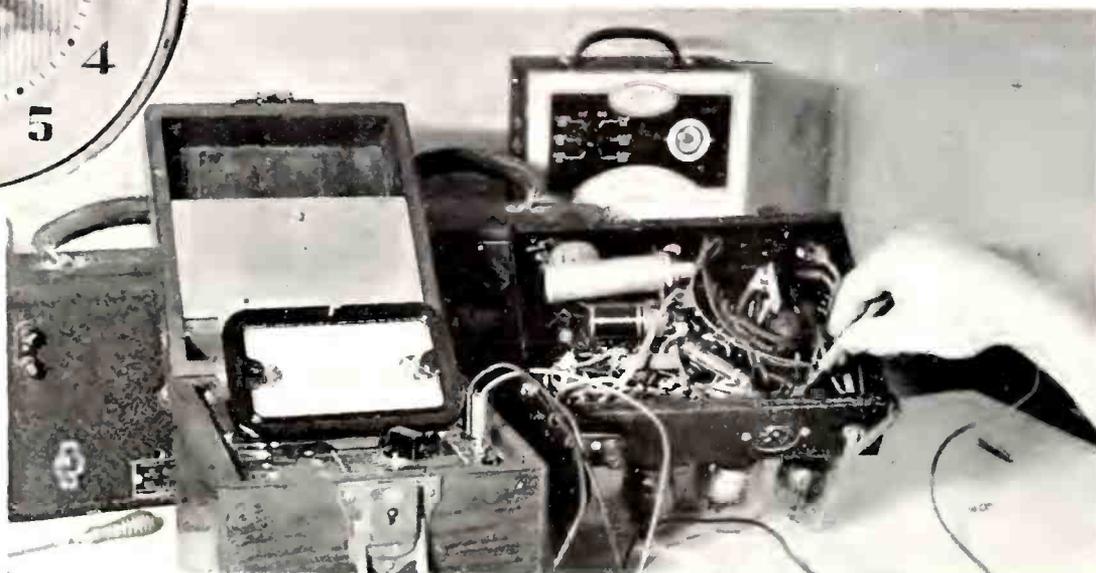
**MODEL 500.** Same instrument in display cabinet with big, 9-inch meter (see illustration)—a remarkable tube merchandiser. **\$43.00**



Model 450

**MODEL 450  
"TEST MASTER"**

• Service men have called it more for the money than any all-service tube and set tester on the market. Has new Simpson 3-way switching as described above; sockets for 4, 5, 6 and 7-prong tubes, loctals and bantams. As set tester has 8 A.C. voltage ranges; 5 resistance ranges; 5 milliang ranges; 5 Decibel ranges. Your price **\$39.75** only

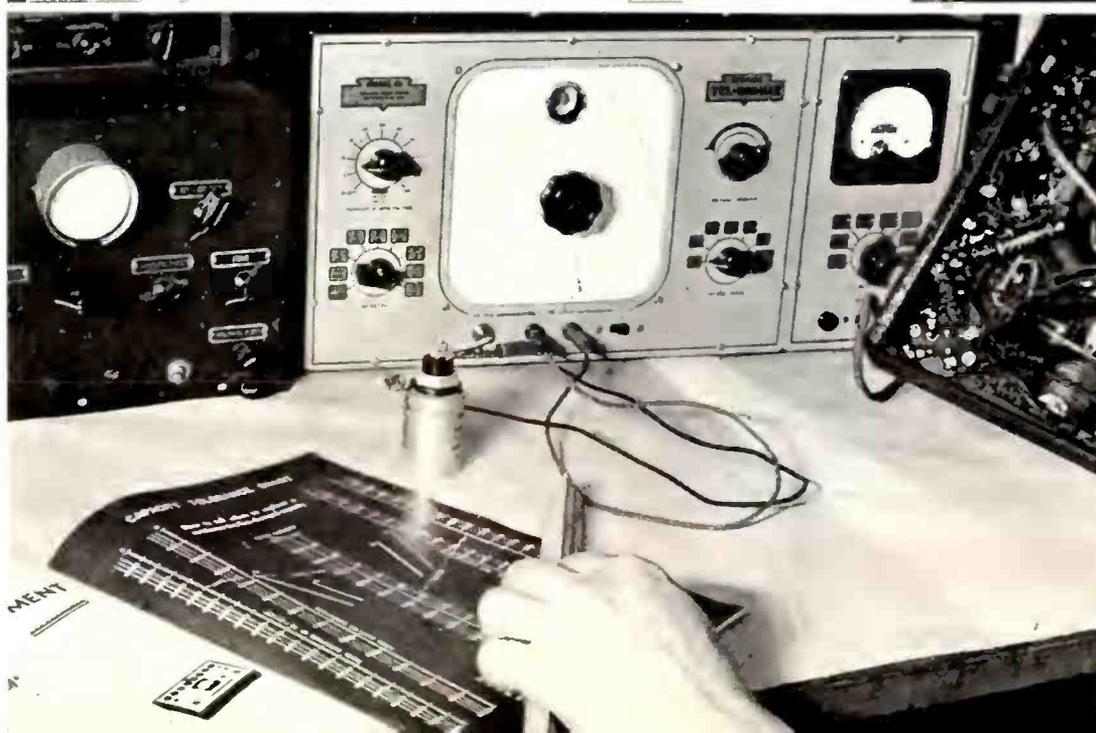


1. First step in testing set is power supply check for normal voltage at output of filter. Filament supply is also checked. Bad shorts and "opens" show up here.

# SETS IN 37



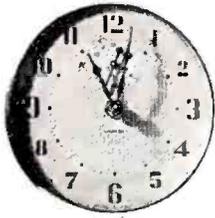
2. Signal tracing and signal substitution are then used to run down troubles to a particular portion of the circuit. Low stage gains mean poor tube, wrong voltage, or improper coupling.



3. When trouble is located in a particular stage, associated parts are tested. Here an electrolytic by-pass is checked on De Luxe Tel-Ohmike (Sprague Products Co., N. Adams, Mass.). Capacity tolerance chart appeared in March RADIO TODAY.



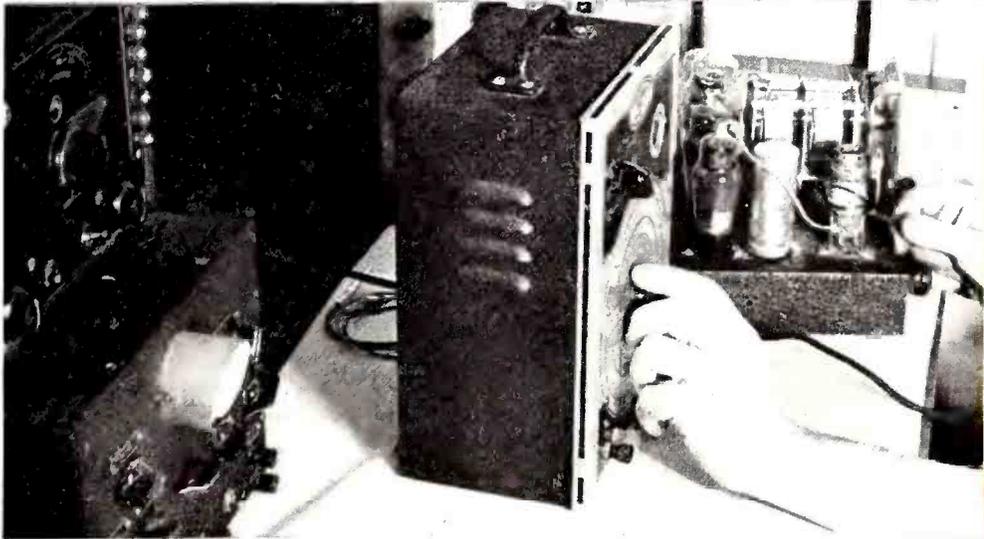
Resistor, power factor, leakage current, and insulation resistance of capacitors measurements give quick clue to trouble. 4.



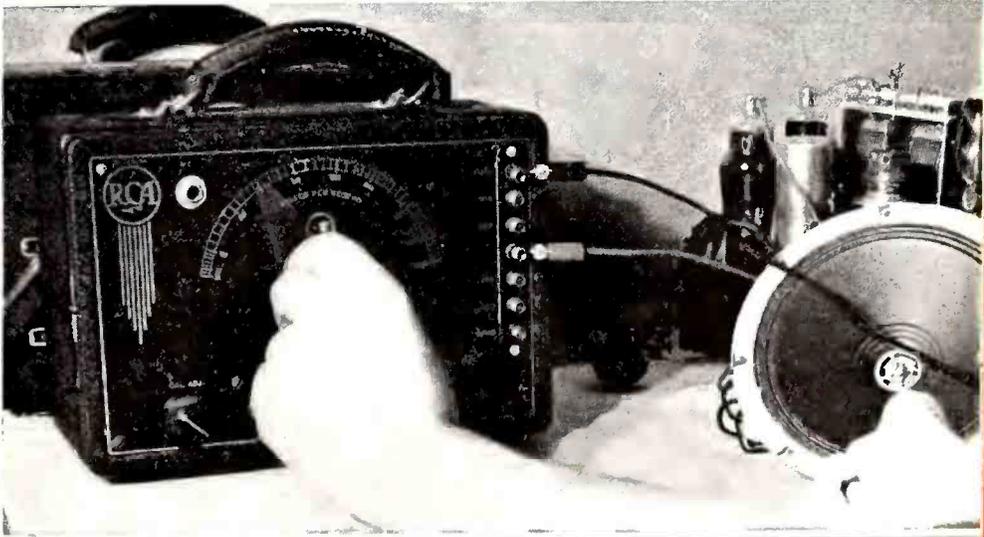
# SERVICED MINUTES



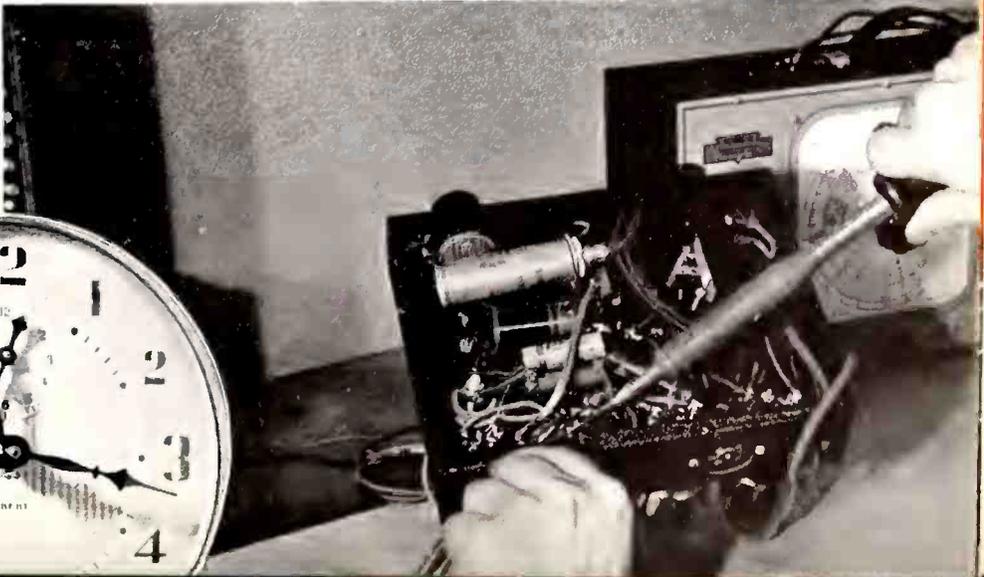
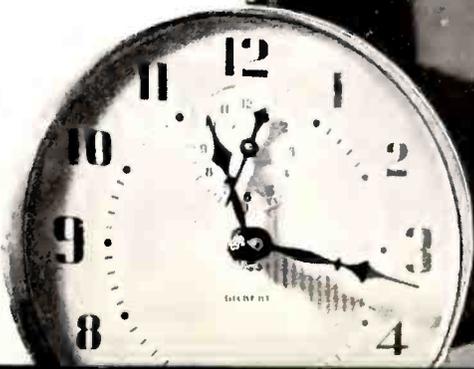
RF coils and transformers are tested for open circuits, shorts, alignment with L-C Checker (Aerovox Corp., New Bedford, Mass.). If coil tunes at frequency above others with padder at maximum, turns are shorted, or AVC by-pass capacitor is too small. 5.



Speakers, output transformers, and audio stages get a range of frequencies and voltages from RCA beat-frequency generator when trouble is localized. Sweeping over frequency range rapidly shows up speaker rattles and resonance. 6.



The set has been checked from "Ant." to speaker in 31 minutes. Since it is usually unnecessary to go through all of these steps, average sets will be repaired in shorter time. Six minutes more puts this set back in shape. 7.





# SPRAGUE TEL-OHMIKE De Luxe

The editors of RADIO TODAY are right! Time—sold on a profitable basis—is the essence of successful servicing. And when it comes to saving time in checking condenser or resistor troubles or doing a dozen and one other jobs around a service bench, the new De Luxe Tel-Ohmike beats anything you've ever seen. It includes a built-in voltmeter and a milliammeter with switch and pin-jacks provided so that the meters may be used for measurements external to the instrument.

Tel-Ohmike makes it easy to make complete, accurate tests of all condenser and resistor characteristics. It indicates "opens" and short-circuits—even the hard-to-find intermittent "opens." It measures leakage current and power factor; meas-

ures insulation resistance up to 10,000 meg.; analyzes all condenser types at their *exact working voltages*; makes capacity measurements from .000010 mfd. to 10,000 meg. and resistance measurements from .5 ohms to 5. meg. Balance indications are given by a "magic eye" tube. Measurements are taken from large, direct-reading scale. See Tel-Ohmike at your jobbers, or write for folder.

De Luxe Tel-Ohmike . . . . . \$39.95 Net  
 Standard Tel-Ohmike (Without voltmeter or milliammeter, but with jack so you can plug in your own meters) . . . . . \$29.70 Net

## Save Headaches!

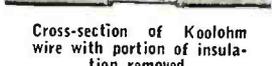
After you've located a bad resistor with Tel-Ohmike—then play safe! Replace it with a Sprague Koolohm—and you know the job is done RIGHT! Koolohms cost no more than ordinary resistors, yet are outstandingly different in construction, amazingly superior in performance. Every bit of wire is insulated BEFORE it is wound with an exclusive heat-proof, moisture-resistant material. This permits layer-windings to give greater resistance in smaller size, faster heat dissipation, and permits use of larger, sturdier wire for safety. Then, to top off an already tip-top job, Koolohms are insulating from end to end and doubly protected with a peel-proof, crack-proof ceramic shell containing the famous Sprague Automatic Overload Indicator. Catalog free.



**KOOLOHM RESISTORS**



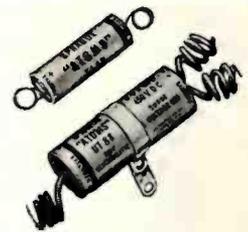
Cross-section view of 5-watt Koolohm showing large, durable wire and layer windings.



Cross-section of Koolohm wire with portion of insulation removed.

## Save Money!

and save time and space in the bargain. Follow the lead of hundreds of successful servicemen who use Sprague Atoms for all types of dry electrolytic condenser replacements—large or small. Atoms always fit. A small stock equips you for almost any job. They've got more "guts," are more dependable than many of the larger, old-style units they replace. All capacities—voltages—single and dual combinations. Two or more Atoms may be combined by using Sprague ST Mounting Straps to give you countless hard-to-get "special" replacements.



**Use Atoms Universally**

### NEW! Atom Types for Vertical Mounting

Pacing the rapidly growing trend toward condensers with "feet" for vertical soldering to the chassis, or for bending through chassis holes, Sprague now brings you a complete new line of Atomtype dry electrolytic condensers known as Type LM. Don't miss them! Featured by foremost jobbers. Catalog free.



# SPRAGUE

SPRAGUE PRODUCTS CO., NORTH ADAMS, MASS.

# SERVICE NOTES

## Compact Uses Direct Coupled Audio Tubes

This 6-tube two band superhet has several interesting features from the serviceman's standpoint. The slight difference in the two models is shown in the circuit diagram. Model DP does not have the RF filter between the common B— bus and the chassis. This filter is made up of R8 and C25. The B— is ground directly to the chassis in DP and not in DP-1.

The RF and oscillator coils are shown connected in the Broadcast position, No. 1, which covers 540 to 1730 kc. No. 2 is the short wave range of 5.6 to 18 mc.

A series wave trap in the antenna circuit tunes in the vicinity of the IF of 455 kc. This trap should be adjusted for minimum output indication at 455 kc., or to an interfering station operating near the IF. The signal generator should be connected to the antenna, through 0.0002 mfd. condenser, and its voltage adjusted to give some output indication even with the trap adjusted for maximum rejection. This will permit alignment to the "dip."

### IF ALIGNMENT AT 455 KC

The first IF transformer is located on top of the chassis and is mounted with snap-on fasteners. The transformer may be removed by unsoldering the leads and pinching the clips together. The trimmers are located

in the top of the can. The second IF transformer is mounted on the rear wall of the chassis and its trimmers may be adjusted through holes in the back.

Set the band switch for broadcast position and put tuning condenser at minimum capacity. Adjust the signal generator to 455 kc. and connect its output to the grid cap of the 6K8GT mixer through a 0.02 mfd. capacitor. The grid cap is not removed from the tube.

Start with the secondary trimmer of the second IF transformer and work back to the primary of the first IF transformer adjusting for maximum output indication in each case. The signal level used should be as low as possible and still give usable indication. The output meter should be connected across the voice coil.

### RF ALIGNMENT

The trimmers for the antenna coil are mounted on the assembly behind and to the right of the variable condenser. The trimmer for the b-c band is in the middle and for the short wave range, it is on the bottom.

The oscillator coil assembly is mounted on the rear wall underneath the chassis. The series padder for the b-c band is located in the center of the assembly with the short wave trimmer nearest the end of the set. The trimmer on the end of the coil nearest center of the set is for broadcast range.

With the wave switch still in the broadcast position, set the tuning condenser at 1600 kc., and feed a signal of the same frequency through a 0.0002

mfd. capacitor. Adjust, first, the broadcast trimmer and second, the antenna trimmer (connected between the primary and secondary of the antenna coil) for maximum response. Set the signal generator and receiver at 600 kc. and adjust the series tracking padder for peak response while rocking the tuning condenser.

The short wave band is aligned at 16 mc. with the signal generator connected to the antenna through a 400-ohm carbon resistor. Adjust, first, the oscillator trimmer, and second, the antenna trimmer for maximum response.

The voltages indicated on the schematic are for AC operation, 117.5 line volts.

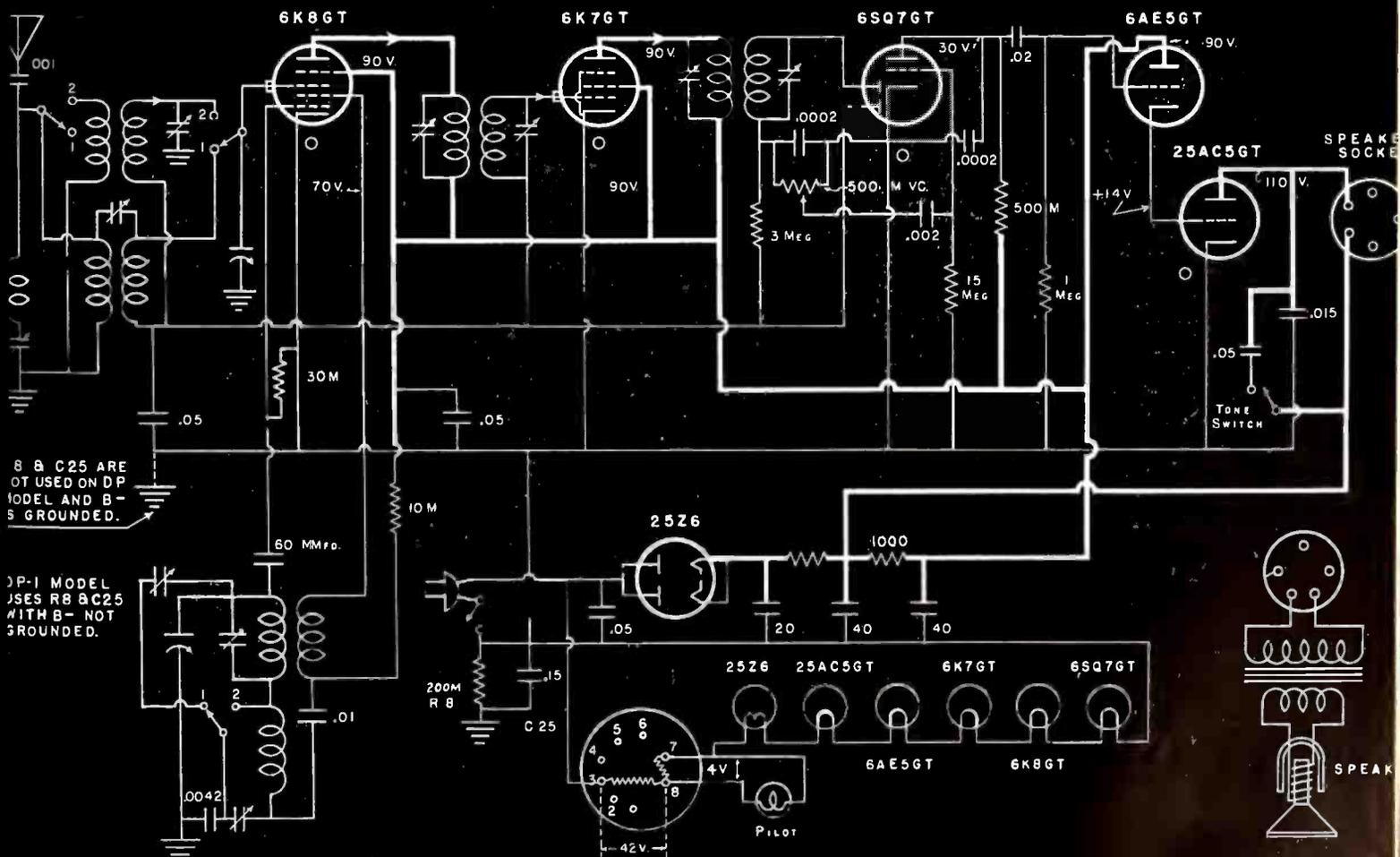
### DIRECT COUPLED AUDIO

The direct coupled audio amplifier stages using the 6AE5GT and 25AC5GT tubes is novel in its operation.

The normal grid current drawn by the 25AC5GT is the same as the plate current of the 6AE5GT.

The grid bias for the 6AE5GT is developed across the grid-cathode impedance of the 25AC5GT. Since the grid of the 25AC5GT operates in the positive voltage region, its internal impedance which is the cathode load of the 6AE5GT, is at any instance the grid voltage divided by the grid current. Since this impedance varies with the signal, a degeneration action takes place tending to reduce harmonic distortion. The same effect is sometimes obtained by using an un-bypassed cathode resistor which increases the negative bias on the tube when the signal current in the plate circuit increases.

## EMERSON DP-332 DP-1-332

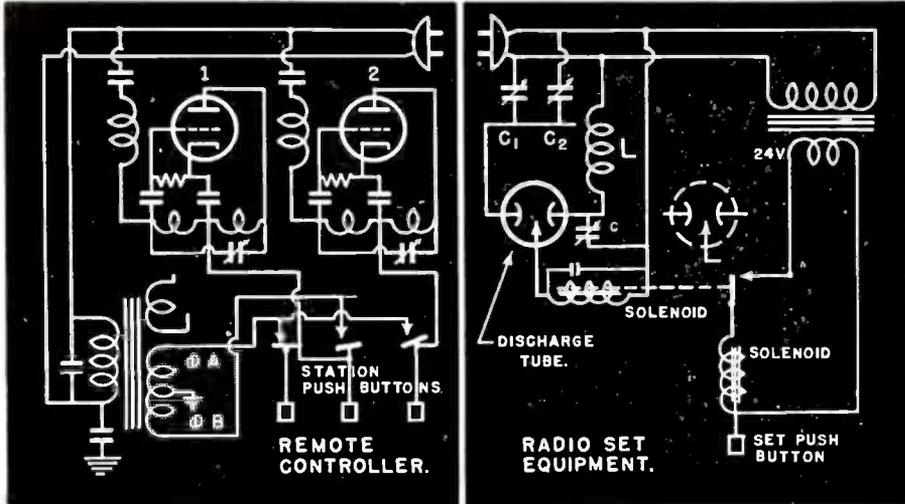


## SERVICING '41 SETS

(Continued from page 30)

### REMOTE TUNING DEVICE

A patent recently granted to W. T. Powell of Stromberg-Carlson's engineering staff, covers a new remote control system for turning the radio off



Partial circuit of remote control box housing 200, and 300 kc. oscillators shown on left. Right circuit shows one of four cold gas tubes used in set.

and on, selecting stations, and regulating volume without wired connections. The controller unit consists of two self-excited oscillators generating 200 kc. and 300 kc. push-button switches, and power transformer with polarized plug. The equipment added to the radio chassis includes four gas-discharge tubes, four relays operating DPDT switches, and eight solenoids to operate the control buttons on the radio. The partial circuit of the controller and set equipment is shown.

The principal of operation is that of RF carrier currents coming over the common house wiring from the control box to the receiver, and tripping the gas tubes which are connected across circuits tuned to operate on one of the two frequencies and one of two phases. Because of the center-tapped transformer in the controller, either end may be connected to an oscillator plate circuit through the push-button switches to develop RF voltages 180 degrees out of phase with each other. Each oscillator may be made to generate 200 or 300 kc. signals by connecting or disconnecting parallel padders.

The ten possible combinations of these two frequencies and two phases develop voltages across the tuned circuits shunting the AC line sufficient to ionize the gas in the correct tube or tubes, thus permitting 110 AC to flow through the tube and energize the relay in its anode circuit. The relay then closes switches permitting 24 volts AC to energize a particular solenoid to pull down a push-button key or operate the reversible motor controlling the volume. The receiver may be turned on and off remotely since the gas tubes do not have filaments which must run at all times for this feature.

## Wireless Record Player Uses Grid Modulation

The new wireless record player introduced by the General Electric Co., (see page 32, May issue RADIO TODAY) has an interesting circuit.

The accompanying diagram shows the grid modulated oscillator used in Model JM-23. The 6A8G, a common

then be made without touching the cabinet.

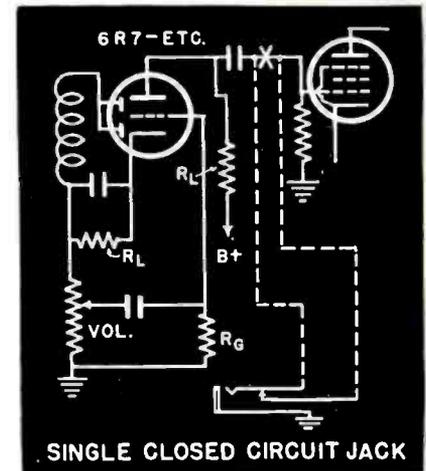
The 78-RPM motor is lubricated and sealed at the factory. Under normal use, it will not require oiling.

Power consumption is 30 watts on both 50 and 60 cycles for motors identified A5 and A6 respectively.

## Headphone Installations In Demand

A great many people who live in apartment houses, work in busy offices, or operate radios where they are likely to disturb others would like to have headphone connections made on their receivers. For some unknown reason they don't seem to be able to get a satisfactory job done. Compact sets are the ones most often used as "personal" radios and the dealer should follow up their sale with the suggestion of providing for headphones.

The actual job is quite simple. Closed

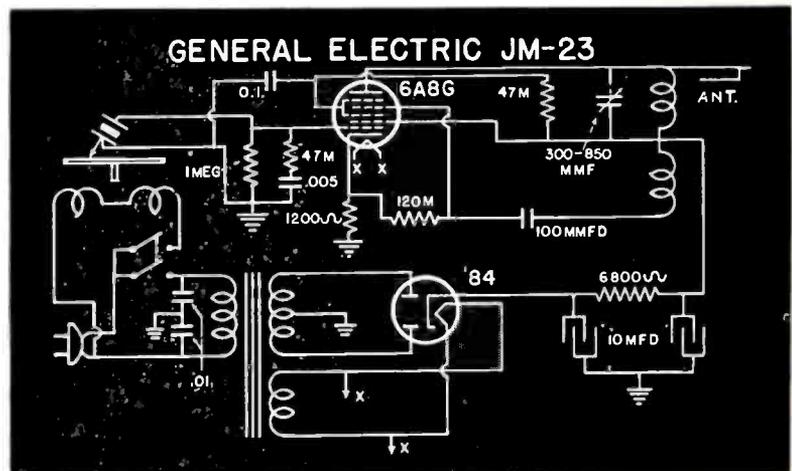


Typical headphone connections for single-ended audio stages.

circuit jacks are the simplest and they get rid of separate switches. The diagrams show common types of sets having single ended and push-pull outputs. The push-pull circuit uses a (Continued on page 38)

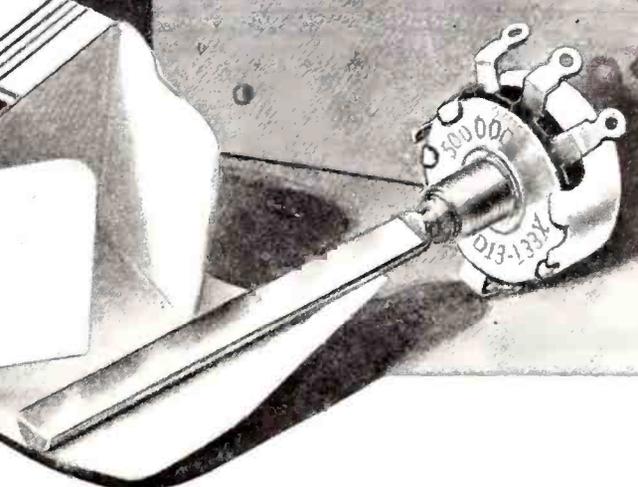
first detector-mixer tube, used in supers, has the crystal pickup connected to the grid used in the oscillator section of a super, that is, the No. 1 grid. The RF oscillator will be recognized as a modification of the familiar TNT circuit. The 300-850 mmfd. trimmer gives a frequency range of approximately 1100 to 1600 kc.

Because of the capacity type, non-directional antenna used, it may be difficult to tune the oscillator to a definite frequency with your hand resting on the case. Since the adjusting trimmer is reached through a hole in the bottom, the recommended tuning procedure is to pull the player beyond the edge of a table far enough to expose the opening. Adjustment can



Wireless record player uses mixer tube with number 1 grid modulated by crystal pickup. Padder tunes oscillator over 1100 to 1600 kc. range. Capacity antenna is non-directional.

# ALL-PURPOSE Controls!



## IRC TAP-IN SHAFTS Stay Put



**Don't Pull Loose!  
Don't Vibrate Loose!**

Just pick the control you need and select the proper shaft for the job. Determine the proper shaft position, tap the cone-shaped end of the shaft into the control receptacle following simple instructions furnished with every control, and the job is done. It won't come loose, it won't slip.

Think of the convenience, the saving in both time and money of this method! With IRC Type D universal-size Controls, you're sure the shaft is right—and you're sure the quality of the control is the highest money can buy!

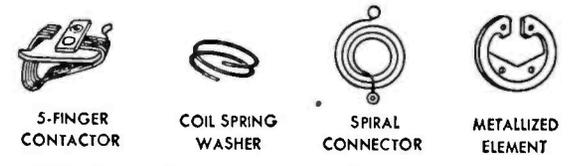
## Used Anywhere to Replace Larger Old-Style Controls

Don't confuse IRC Type D Controls with ordinary midgets! . . . . . For IRC's are more than midgets. They are exact reproductions of the larger IRC Type C Controls, with exactly the same features, exactly the same design in smaller size and with the added convenience of tap-in shafts. They are large enough to be fully dependable; small enough to fit in any set; sturdy enough to stand up under the vibration encountered in auto radio use. You can use them anywhere, regardless of the size of the control being replaced. A small stock of IRC Type D (universal-size controls) plus a supply of the Tap-in Shafts will enable you to make quick, dependable replacements on almost any job.

### IMPORTANT TO USERS!

The recent adoption of a new, improved switch for "D" controls necessitated a change in the drive arm in the control. This means that the new switches can be used only with the new controls, and the older style switch can be used only with the older controls. The new control has the rotational stop pin in the base instead of in the cover. Our distributors have identified their older style switches and "D" controls with a star on the boxes. The new style is not marked. In attaching switches to "D" controls, be sure to know whether the control requires a new or older style switch. The proper combination whether old or new will be perfectly good and dependable. Your jobber can supply either combination and will be glad to properly balance your stock.

### The Only Small Controls with These Exclusive Features



IRC Type D's are amazingly smooth and quiet when you get them—and designed to stay that way after long, hard use. From the famous Metallized type resistance element, to the 5-Finger "Knee Action" Element Contactor, the Silent Spiral Connector which does away with one sliding, metal-to-metal contact and the Coil Spring Washer that eliminates end-play in the shaft, they are constructed for the utmost in long, quiet and trouble-free service.



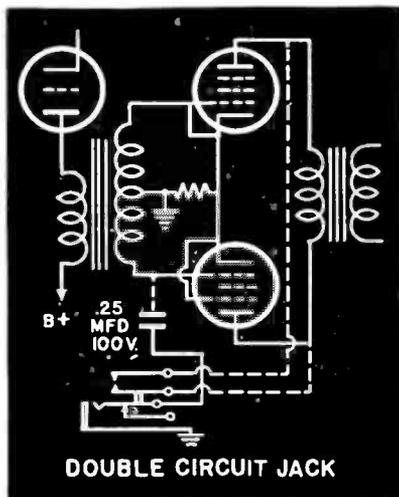
# Type D

"THE UNIVERSAL CONTROLS"

# SERVICE NOTES

(Continued from page 36)

shorting jack which mutes the speaker. One thing to do in all installations is keep DC out of the phones. Use an isolating condenser and prevent any possible shocks.

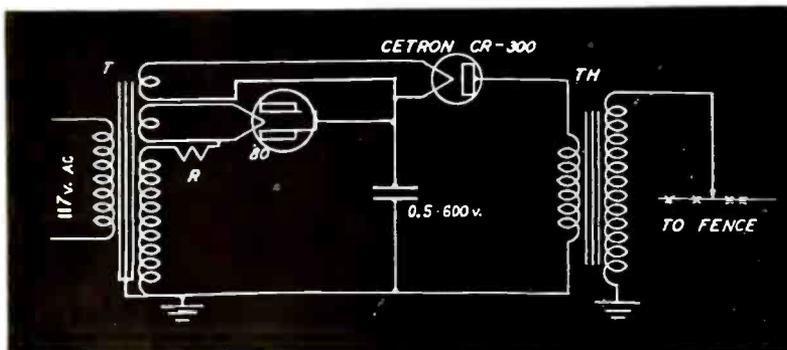


**DOUBLE CIRCUIT JACK**

Output transformer is shorted as phones are used. Suppressor, not control grid connects to cathode.

## Discharge Tube in Fence Control Circuit

Electric fence controlling of live stock has become more popular in recent years and their design and installation is a good field for the rural serviceman. The circuit shown uses a Cetron CR-300 discharge tube made by Continental Electric Co., Geneva, Illinois. The '80 rectifier charges the 0.5 mfd. condenser to approximately 600 volts at a rate determined by the resistor R which may be about 500M 1/2-watt. The Cetron is a peak voltage discharge tube which only fires when its anode has potentials between 400-600 volts, thus as the capacitor builds up to approximately 400 volts, the tube permits the condenser to discharge through the primary of TH. This pulse of current causes a voltage to be induced in the secondary of TH and this is connected to the fence and ground. Transformer T should have windings for 5-volt 2-amp., 2-volt 8-amp., 850



Low voltage power supply charges 0.5 condenser at rate determined by R. Gas tube passes charge through TH.

volts no-load for 15-ma. max. load. TH has a turn ratio of 300/5000 with 20 kv. insulation.

A word of warning. The Continental Electric Co. states, "this is a high voltage device, and suitable precautions must be taken. We are not responsible for infringement of any patents."

## Mallory Supplements Issued

Automatic Tuning is the title of the eighth of the series of supplements to the Mallory-Yaxley Radio Service Encyclopedia published by P. R. Mallory Co., Indianapolis, Ind. The new supplement covers the automatic tuning systems that have been introduced since the second edition of the Mallory Encyclopedia. Tables of the models covered in both issues are included to provide quick reference. Diagrams, and drawings explain the various mechanical, and electrical tuning systems, as well as capacity or inductance switching systems.

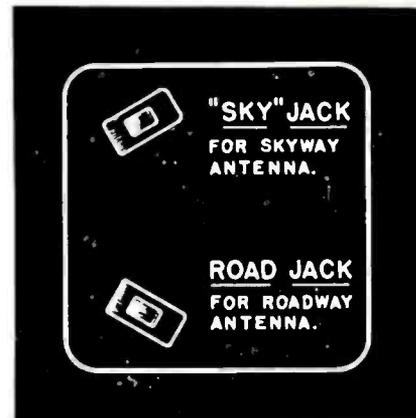
### FM COVERED IN NO. 9

The ninth supplement covers frequency modulation in theory and practice. Complete theoretical explanations of FM circuits and schematics of present receivers are real aids to the serviceman.

## Auto Radio Typical Troubles

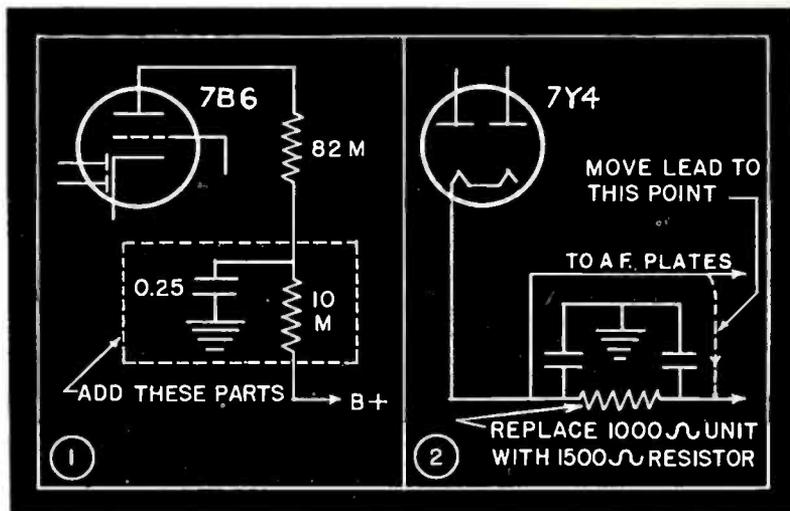
### CHRYSLER 1608

Low sensitivity: Check the antenna connections on the primary coil and see that proper connections have been made. See plan of connections in following diagram.



### ZEPHYR L-1760

Hum: Check and replace filter capacity if necessary. If hum remains, use either or both changes as shown. For 1, add plate decoupling 10M re-



Two circuits for reducing hum in Zephyr L-1760 auto sets. Second detector filter at left adds two parts.

sistor and .25 mfd. capacitor. For 2, replace the 1000-ohm filter resistor with 1500-ohm 10 watt unit and move the supply lead for output tubes to the other side of this resistor.

## Engineer Tours With FM Lectures

Now on a tour of 17 major cities with illustrated lectures on "The Service Side of Frequency Modulation" is Ray Wilson, service engineer for Zenith Radio Corp., Mr. Wilson covers the economic side of FM, as well as the technical, in his talks to dealers and servicemen.

## Stromberg Sales in 300% Lift

The news from Stromberg Carlson is that orders for radios and radio-phonographs are some 300 per cent greater than those signed after the showings of lines last year. These totals were announced by SC general sales manager Lloyd L. Spencer, who added that the boost in orders was due partly to the inclusion of the staticless FM band on a number of the new models.

Stromberg got the extra dealer response, too, on account of a wide variety of automatic radio-phonographs, and the plus styling of new cabinets, Mr. Spencer declared.

## Philco Volume in Stout Increase

Sales of Philco products are strongly up, to the extent of a 30 per cent increase over a year ago for the first six months of this year, according to news from the firm's president, James T. Buckley. The report says, too, that following the debut of Philco sets and photo-electric phonographs, orders amount to \$15,268,350 at retail prices, compared with about \$10,645,963 a year ago.

"And the sustained higher level of retail trade makes us look forward to an even greater volume of business," concludes Mr. Buckley.

## WAKING UP THE FARM BUYERS

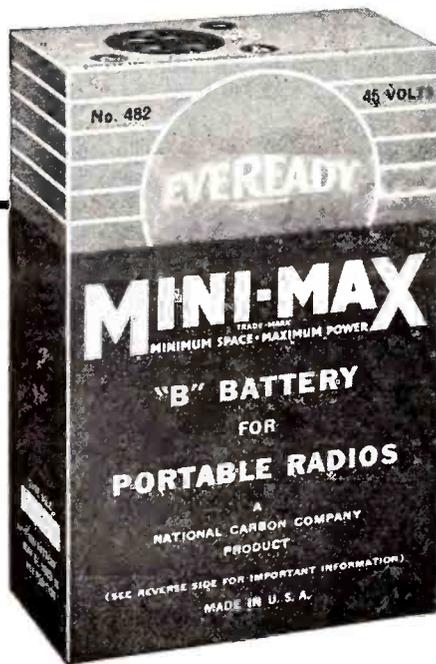
(Continued from page 17)

New jobs also feature low battery drain and a number of battery-saving devices. Two-band reception and improved selectivity are likewise among the improvements. Record players, with spring-wound motors and sensible prices are now available to farm folks. New music-speech tone controls, single unit battery conveniences, radio-phonographs, and directional aerial improvements are ready to sell.

## SALES OPPORTUNITIES

Wind chargers, whose fundamental economy as a source of power has a big appeal for farmers, have merged into a new perfection of engineering and there's many a non-electrified family that will be attracted to a lively demonstration by the dealer.

It's a year of super products, a time when the farmers are being courted by the political candidates, a year when market news looms with new importance. And therefore a period when farm radio dealers can edge very profitably into the buying confidence of the millions of the country people who need a new receiver.



# Here's the Ticket for ELECTION PROFITS!

## With Radio's Mightiest Midget

More owners of portable radios will tune in on news of the coming election than ever before. That is your cue to tune in on profits . . . by stocking enough "Eveready" "Mini-Max" 45-volt "B" batteries right now!

Here's the sensationally small battery that gives great performance. Combining minimum weight and maximum power, it delivers *twice* the service life of

any other "B" battery of equal size.

Over thirty leading manufacturers have designed portable radio sets around the "Eveready" "Mini-Max." Your customers know of its long-life feature . . . will ask for it by name. To be sure of getting your share of the election-listening business, get your order in for "Eveready" "Mini-Max" "B" batteries today!

Leading radio manufacturers making portable sets for the "Eveready" "Mini-Max" "B" battery are:

ARVIN	GENERAL TELEVISION	SENTINEL
AUTOMATIC	GILFILLAN	SONORA
COLONIAL	HOWARD	SPARTAN
CROSLLEY	KADETTE	STEWART WARNER
DETROLA	MAJESTIC	STROMBERG CARLSON
DEWALD	MISSION BELL	TELEX
EMERSON	MOTOROLA	TRAV-LER
FADA	NAMCO	TROY
FARNSWORTH	PACKARD BELL	WARWICK
GAROD	PILOT	WESTINGHOUSE
GENERAL ELECTRIC	RCA	WILCOX-GAY

And Others!

## NATIONAL CARBON COMPANY, INC.

General Offices: New York, N. Y. • Branches: Chicago and San Francisco  
Unit of Union Carbide and Carbon Corporation



The words "Eveready" and "Mini-Max" are registered trade-marks identifying products of National Carbon Company, Inc.

# RENEWAL BATTERIES FOR PORTABLES

Opposite portable name and model number in lower table note code letters for A and B batteries. Figure preceding code letter is number of units used. Beside code letters in battery table directly below, find manufacturers' type numbers.

Battery Makers	Acme	Advance	Burgess	Bond	Bright Star	Eveready	General	Nat. Union	Philco	Ray-o-Vac	Usalite	Winchester	Willard	Zenith
Code														
A.....	123M		4FL		465		3L1			P94L			3L1	
A1.....	114	247	4F	4826	462	742	4F1	A830	P94	P94A	634	4816	4F1	
A2.....	116		6F	4824	660	743	6F1	A831	P96	P96A	637	4814	6F1	
A3.....	118	147	8F	4829	860	741	8F1	A833		P98A	635	4819	8F1	
A4.....	123	647	G3		361	746	3H3			P83A	683	4918	3H3	
A5.....	114S	747	2F4L		868	747	8GF4			P698L	646		4F4	
A6.....	118S	817	2F4	4827	866	718	8F4	A834		P698A	638	4817	8F4	
A7.....	118FM	547	8FL		865	745				P98L				
A8.....			G5		561		5H5			P85A	687			
A9.....			F4P1		646	636	4F4			P694A	639			
A10.....			20F	4828	20-60	740		A832		P9203				
B.....	330	267	B30P1											
B1.....			B30	3017	30-03	762	V30B	B860	P305	P5303	624	6218	V30B	
B2.....			2308	3044	30-95	485	V30DL	B850		P2303	632			
B3.....	430		A30		30-55	738	V30A			430P	621		V30A	
B4.....	830	284	N130		30-33	482		B861		P5530				
B5.....	530		A60				V30AA			BB60P			V30AA	
B6.....	830	284	A30X			482								
AB.....	460-15	411	Z30		30-50	738	V30AA		620	P7R30	620		V30AA	
AB2.....	460-15MS		5DA60				60A2L				665		60A2L	
AB3.....			6TA60											
AB4.....	3604FS	659	17G		6105	748	60DIIL	N801	P60DIIL	AB82				Z659
AB5.....	460-15S		D60											
AB6.....	860-41		F4B											Z9B
AB7.....	442-4		60											
AB8.....			6FA				P60A4L		P60A4L	AB84	AB667		60A4L	
			4FA60											
			4GA42							AB419	AB669		P41A 1FL	Z675
											AB670			

RADIO	MODELS	BATTERIES A	BATTERIES B	RADIO	MODELS	BATTERIES A	BATTERIES B	RADIO	MODELS	BATTERIES A	BATTERIES B
Admiral	1644D-3114D-6354Z } 10354Z-3354Z } 2314F-2314Z-3314F } 2365N-3365N-6365N- } 10365N } 3194Z } 33F5-34F5-36H6 } 35G6-37G6 }	1-A2	2-B	Detrola	282 } 286-287-288 } 289-299 } 295 } 303 } 339-340-341-360 }	1-A1	2-B	Howard	10B } 11B } 10BT } 14ACB }	1-A3	2-B
Air Castle	5601-5611-6111 } 5911 }	1-A3	2-B	De Wald	408 } 408R-409 } 415 cub } 415R-415RA } 544-L-LW } 545-LW-SW } F5-XF5-G6-XG6 }	1-A1	2-B	Imperial	L34 } 905 } A10700-10701-10725 }	1-A1	2-B
Air King	3905-3912 } 3906-3910 } 3916 } 4012-3950 } 4016 }	1-A3	2-B	Emerson	CX285 } CE259 } CE263-265-CT275 } CX263-275-283-284 } 292-305-308-DC308 } DF302-306 } DJ310-311-312-EA338-339 } 340-341-357-363 }	1-A1	2-B	Kadette	A10730 } A10748 } A10761 } A10795-10873 } A10872-E10061 }	1-A1	2-B
Andrea	21F5-21AF5 } 6G61-61A }	1-A3	2-B	Espey	942-A-C-F-P } 943-958 } 040-050 } 052-053 }	1-A1	2-B	Karadio	E10758 } A10848-10889-E10757 } N2812 } E10775-178BL } E10777-171AS }	1-A1	2-B
Arvin	802-803	1-A7	2-B3	Fada	P22-PD-PL } P28-PD } P23 } P24-PL-P40 } PD40-PL-P58 } PL58 } P47-PD-P48 } P49-SW-PD49 } PD49SW }	1-A1	2-B	Knight	A10872-E10061 } E10758 } A10848-10889-E10757 } N2812 } E10775-178BL } E10777-171AS }	1-A1	2-B
Autocrat	90-98 } 120 } 131-132 }	1-A1	2-B	Farnsworth	AT30 } AT31 } BP4-5-5A-7-8 } BP6 } BP9-10 } BP11-36-36A } BP12-A-B }	1-A1	2-B	Lafayette	B572-BB70-CC55 } CC55A-BS33A } BS56-85-E6-E72 } BB73-CC58-58A }	1-A1	2-B
Automatic	P40-41-50-51 } P43-45 } P72 } P80-81 }	1-A1	2-B	Garod	AD30 } AD31 } BP4-5-5A-7-8 } BP6 } BP9-10 } BP11-36-36A } BP12-A-B }	1-A1	2-B	Majestic	1BR50B-PB } 5BD-5ULBD-546BD } 130U } 420PL-421 }	1-A1	2-B
Belmont	403-460 } 407 } 507-513 } 411 } 62566 } R141 }	1-A1	2-B	General Electric	GB400-HB401-408 } HB402-403-X467 } HB410-411 } HB504-505 } GB440 } HB412-JB508-513 } JB514-515 }	1-A1	2-B	Meissner	101187 } 400-503 } 500-501 } 502 } 504 }	1-A1	2-B
Carryette	WR675	1-A3	2-B	Gilfillan	4B } 4C } 5B } 6B }	1-A1	2-B	Mission	101187 } 400-503 } 500-501 } 502 } 504 }	1-A1	2-B
Carryola	BP4-5-5A	1-A1	2-B	Grebe	See same Garod model			Bell	500-501 } 502 } 504 }	1-A1	2-B
Clark	457-948-949	1-A3	2-B					Mantola	400-503 } 500-501 } 502 } 504 }	1-A1	2-B
Climax	73 } 561-568 } 507-507L-509 } 512-575-578 } 578B-592 }	1-A1	2-B					Macy	400-503 } 500-501 } 502 } 504 }	1-A1	2-B
Coronado	611 } 4B5-5B3 } 568 } 1F455KC } B429A } 439A-549A-549B } B5549A } 27BD-27BE } B458A-468A } B5589M }	1-A1	2-B					Motorola	400-503 } 500-501 } 502 } 504 }	1-A1	2-B
Crosley	403-460 } 407 } 507-513 } 411 } 62566 } R141 }	1-A1	2-B					Namco	400-503 } 500-501 } 502 } 504 }	1-A1	2-B
Delco	R1400 } 1401-1402 }	1-A3	2-B					Packard	400-503 } 500-501 } 502 } 504 }	1-A1	2-B

RADIO	MODELS	BATTERIES		RADIO	MODELS	BATTERIES		RADIO	MODELS	BATTERIES				
		A	B			A	B			A	B			
Philco	71T-72T-73T-74T	1-A1	2-B	Sky Chief	A212-213-216	1-A1	2-B	Warwick	0407-0411	1-A1	2-B			
	504-504T				215-218	1-A3	2-B		0461-0464	1-A7	2-B3			
	81T Little Pal	222	1-A		2-B	0501	1-A6		2-B					
	83T	3	1-A2	2-B	Sky Hawk	3910	1-A2	2-B	Watterson	PB	1-A1	2-B		
	85T	4				Sonora	PL29-37	AB		1-A1	2-B	Wells	4B5-3-4	1-A3
	88T	AB5	XL28-29-128	1-A1			2-B	Gardner					5B3-5B8	2-A4
Pierce Airo Pilot	408	1-A2	2-B	Soundview	400-510	3 No. 2 cells	1-B6		Western	D937-938	1-A3		2-B	
	T1021	1-A1	2-B3		850	4 No. 2 cells	2-B			Auto	D939	1-A1	2-B2	
	TH11-12-H11-12	1-A3	2-B		Sparton	4101	1-A1	2-B			D940	1-A8	2-B	
	T1451-1452	1-A7	2-B	5901-5901C		1-A6	2-B	Westing-	D1080	1-A9	2-B2			
	T1351-X1451-1452	1-A5	2-B3	5911		1-A9	2-B		house	WR166-674	1-A1	2-B		
	X1453-T71			5711-571M	1-A3	2-B3	WR675-A	1-A3		2-B				
Portomatic	U17-A-C-USW17-A-C	1-A1	2-B	Stewart-	02-411 to 02-419	1-A1	2-B	Zenith	5416-4K400-D	1-A1	2-B			
	BE27	1-A3	2-B		Warner	02-4A1 to 02-4A9	1-A2		2-B3	L-M-S-Y	AB6			
RCA	15BP to 15BP6	1-A2	2-B3	Stromberg-		05-5X	1-A2	2-B3	4K402D-M-F-L	AB6				
	94BP1-4-61-62	1-A1	2-B		Carlson	05-5L1 to 05-5L9	1-A7	2-B3	5G401-D-L-M-Y	AB4				
	64-66-80-81			1 No. 2 cell		5	402H	1-A3	2-B3	5G403-405	AB8			
	96GA-96TA	1-A5	2-B3		Trav-ler			B70	1-A9	2-B2	5G500-M-L	AB8		
BP10 "Personal"	1-A1	2-B	Remler	B71-FB73-556BT		1-A6	2-B	Notes:						
BP55-56-85	1-A5	2-B3		92	1556BT-1556B	1-A1	2-B	1-Rayovac	1-643					
Sentinel	127BL	1-A1	2-B	93-94	1556BT-1556B	1-A3	2-B3	Burgess	1-2F; 1-W20P1; 1W34					
	151BL	1-A3	2-B3	Troy	B80-81-FB82-404	1-A5	2-B3		General	1-2F1; 1-V34AAAG; 1-V20AAAG				
160BL-170BL	AB6	1-A2	2-B		BP140	553BT-554BT	1-A1	2-B		Willard				
178BL-181BL	1-A6			2-B		BP350	1-A7	2-B3	3-Philco		P41A4G			
180XL-201XL	1-A5	2-B3	BP640	1-A2	2-B		Usalite	AB672						
192XL-213P-205	1-A7	2-B3		BP950-951-953	1-A9	2-B		4-Philco	P60A8F4					
172BLSW-202BLLW	2-A4	2-B	910-949		1-A3	2-B	Usalite		AB673					
217P	2-A4	2-B		952	1-A1	2-B		5-Eveready	467					
Setchell-Carlson	55	4 No. 2 cells	2-B	Silvertone	6256 to 6541	1-A1	2-B							
	66	5 No. 2 cells			6561-6661	2-A4	2-B							
	6721-6761	1-A2	2-B											
	6651	1-A2	2-B											

## Sales Managers, Credit Men in Annual Tourney

The annual golf tournament and outing of the Sales Managers Club, eastern group, and the R.M.A. Eastern Credit Committee, was staged July 25 at the Green Meadows Club, Harrison, N. Y. The event was complete with business meetings of the two groups, luncheon, prizes and dinner.

Members present included A. E. Akeroyd, Raytheon; W. W. Jablon, Hammarlund; D. T. Mitchell, American Radio Hardware; John Rider; Sam Ruttenberg, Amperite; Sam Spector, Insuline Corp.; A. A. Berard, Ward-Leonard; Victor Mucher, Clarostat; Dan Fairbanks, IRC; A. A. Parmet, Parmetal; Pete Bercoe, Alpha Wire; Wm. Osler, Cornish Wire; Ken Tibbets, National Credit Office; A. E. Stevens, Hammarlund; Henry Pope, National Union; D. F. Reid, Raytheon; H. A. Schmidt, IRC; Bert Clough, Hazeltine; M. Schector, Quam-Nichols; R. Brewer, Quam-Nichols; J. Stagg, Cornish Wire; Bond Geddes, RMA; Arthur Moss, NRPDA; J. H. Robinson, National Union; Ed Metzger; A. A. Lane; L. R. Schenck, mfrs. rep; Sam Roth and Phil Frieden, United Catalog; C. Stimpson, Citizens Radio Call Book.

## Utah Meeting Has Note of Sales Success

At the latest meeting of the sales organization of the Utah Radio Products Co., Chicago, executives of the firm were ready with a review of progress during the last year, and an outline of new steps for new volume and profit highs in the future.

Utah president G. Hamilton Beasley described organization and policy changes and general salesmanager O. F. Jester reviewed the merchandising

plans. Peter L. Jensen, vice-president, and J. M. Hume, sales engineer appeared with explanations of the Baflex reproducer and the FM speakers which are new in the Utah line.

## JFD Buys Star Auto Antennas

In a new expansion move the J.F.D. Mfg. Co. reveals that they have purchased all the moulds, dies, patents, raw and finished material, etc., for the auto antennas heretofore manufactured by the Star Machine Manufacturers, Inc.

These antennas will be marketed by the J.F.D. organization under the name J.F.D. "Star." Star type mounting assemblies or J.F.D. type will be supplied as preferred.

## Radio Expert Guest of Ken-Rad

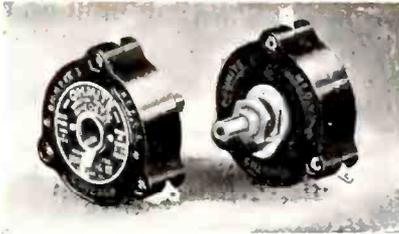
Guest speaker at the Scientec Club of Evansville, Ind., on Aug. 9th, was P. C. Sandretto, superintendent of the Communications Lab of United Air Lines. He spoke on radio's developments in air navigation. Mr. Sandretto was, Aug. 9th and 10th, a guest of the Ken-Rad Tube and Lamp Corp., Owensboro, Ky.

## Kahn & Sun

Sun Radio Co., 212 Fulton St., New York City, has a new staff member, Hyman Kahn, who was for many years associated with Leeds Radio Co. Mr. Kahn has had extensive radio experience in Eastern amateur circles.



Snapped in front of the Stevens Hotel, Chicago, as they left for the RMA golf tournament, left to right, B. J. Erskine, Hygrade Sylvania asst. to vice-pres., Emporium, Pa.; C. T. Ferguson, Sylvania jobber, Detroit; Carl Middaugh, Inter State Radio & Supply Co., Denver; and P. S. Ellison, Sylvania sales and advertising manager.



### Ohmite rheostat

★ Continuous winding rheostat for connection to rotary antennas and other equipment for direction indicating. Model DR-125 designed for DC up to 24 volts. Ohmite Mfg. Co., 4835 Flournoy St., Chicago, Ill.—RADIO TODAY.

### Sterling meters

★ A new line of pocket and panel meters for AC and DC, features loading-type portable battery tester which has plug-in tips mounted around the case for direct connection to socket. A and B units are tested at normal loads. Type 38A lists, \$2.75. Sterling Mfg. Co., 9205 Detroit Ave., Cleveland, Ohio.—RADIO TODAY.

### Walsco scratch remover

★ Designed like a fountain pen, new scratch remover tool has filler-stain in one end, and liquid stain in the other. Made of unbreakable plastic, device has usual pocket

# SERVIC

clip. Walter L. Schott Co., 5264 W. Pico Blvd., Los Angeles, Calif.—RADIO TODAY.

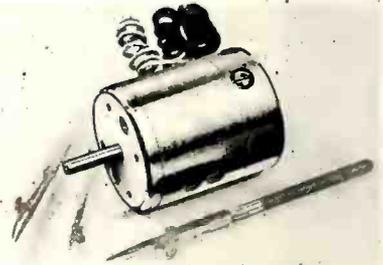


### Hickok signal generator

★ Model 188-X wide band crystal controlled signal generator covers 100 kc to 133 mc. Electronic frequency modulation up to 750 kc. sweep at 400 cps. Variable audio output 50 to 10,000 cps. 100 and 1,000 kc. crystal frequencies. For 110 AC. Hickok Electrical Instrument Co., 10514 Dupont Ave., Cleveland, Ohio.—RADIO TODAY.

### GE test equipment

★ New line of radio service equipment includes two signal generators, oscilloscope, multimeter, tube tester, and capacity-resistance bridge. Bridge measures capacity from 2 mmfd. to 200 mf., resistance to 20 megs., power factor, transformer turn ardiols, etc. General Electric Co., Bridgeport, Conn.—RADIO TODAY.



### Eicor small motor

★ Tiny motor weighs 1½ lbs., is 2½ x 2¾ long. Delivers ¼ hp. at 8500 rpm. Designed for aircraft, bandswitching, antenna reels or any type of remote control. Eicor, Inc., 515 S. Laffin St., Chicago, Ill.—RADIO TODAY.

### Raytheon tubes

★ Types CK-505, and CK-505X pentodes for hearing aid use will voltage gain of 225 as resistance coupled amplifier with total B drain of 54 microamps, and A drain of 30 ma. at 1.25 volts (tubes in series). 505X type has tinned leads. Raytheon Production Corp., 55 Chapel St., Newton, Mass.—RADIO TODAY.

## SOUND X/TRA TUBES FOR HEAVY DUTY AUDIO WORK

*Insure*  
**PEAK PERFORMANCE**

IN

**AMPLIFIERS,  
PUBLIC ADDRESS  
SYSTEMS, SOUND  
PROJECTORS,  
INTER-OFFICE  
COMMUNICATING SYSTEMS,  
COIN OPERATED REPRODUCERS**

**Can Be Used to  
REPLACE ORDINARY TUBE  
OF SAME TYPE NUMBER  
For Better Reproduction**

The chief requirement for National Union's new SOUND X/TRA tube types is that they must be demonstrably better. In order to accomplish this outstanding performance in SOUND X/TRA types, modifications in construction and details of engineering were incorporated. Emission limits are very high to insure exceptional uniformity, long life and adequate power-handling capacity. Gas and grid current are held to exceptionally low limits to insure minimum distortion, uniformity and stability. Every tube is carefully tested for hum and microphonics and, where necessary, changes have been made in construction such as the use of special micas, extra rugged supports, double helix heaters and special insulation.



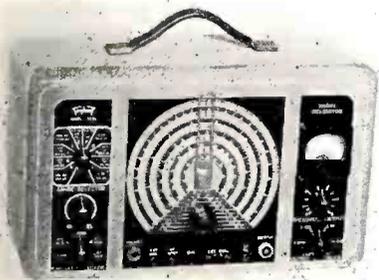
### DEMONSTRABLY BETTER

- ★★★ NON-MICROPHONIC
- ★★★ LOW-HUM LEVEL
- ★★★ UNIFORM CHARACTERISTICS
- ★★★ NO MATCHING NECESSARY
- ★★★ LONG LIFE AT FULL OUTPUT

Ask Your N.U. Jobber or Write

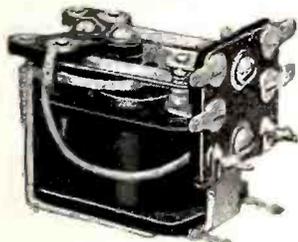
## NATIONAL UNION 77 STATE ST., NEWARK, N. J. *Radio Corp.*

# EQUIPMENT



## Triplet oscillator

★ Model 1632 wide-range signal generator has heterodyne detector incorporated, coaxial output lead, 100 kc. to 120 mc., output voltage meter, internal or external modulation. Net, \$79.85. Triplet Electrical Inst. Co., Bluffton, Ohio.—RADIO TODAY.



## Advance relay

★ Midget relay for AC or DC operation will handle 200 watts non-inductive AC loads. Available in DP-ST or DP-DT contacts. Operation from as little as 0.1 watts. Advance Electric Co., 1260 W. 2nd St., Los Angeles, Calif.—RADIO TODAY.



## RTL circuit tester

★ Model 300 multi-tester has 7-inch meter with DC voltages to 1,200 at 5,000 ohms per volt. AC/DC volts to 6,000, Current to 30 amps, ohms to 10 megs. V.T.V.M. ranges of 10 and 20 volts. DB and VU ranges. List, \$44.50. Radiotechnic Lab., 1328 Sherman Ave., Evanston, Ill.—RADIO TODAY.

## Eby photo alarms

★ Complete line of photo electric units for use as alarms, etc. Eight models from "beginner's" to "heavy duty" operate from 110 volts 50-60 cycles. Hugh H. Eby, Inc., 4700 Stenton Ave., Philadelphia.—RADIO TODAY.



## IRC wire wound units

★ Complete line of non-inductive resistors from 10 to 200 watts power uses special type winding eliminating high capacity and potentials between adjacent turns. International Resistance Co., 401 N. Broad St., Philadelphia.—RADIO TODAY.

## Aerovox electrolytics

★ Independent section midget electrolytics measured 1 x 2½ for 450 v. 8-8 and 250 v. 16-16 mfd. Type PRS 150 for 20-20 mfd. is only 1 x 2¼. Entirely independent sections permit circuit flexibility. Aerovox Corp., New Bedford, Mass.—RADIO TODAY.



**WHAT HAS  
HE GOT THAT  
I HAVEN'T  
GOT?**

**D**ID you ever stop to wonder how some servicemen get more business and make more money than you? Here, perhaps, is the answer. The most successful men in any business are those who have learned never to pass up *anything* that will help them to accomplish an important job *in less time*.

This practice of taking advantage of every aid to *better work in less time* is often the only thing that stands between success and failure. In the radio service business, the man who uses all the information he can get to make trouble-shooting quicker and surer is the one who forges ahead. *He's* the man who has always had a complete set of RIDER MANUALS. He knows how foolish it is to depend on his own memory or intuition when complete, authoritative data can be at his fingertips for only 3c a day.

RIDER MANUALS give you, in the most convenient form, complete data on every set you may be called upon to service . . . data on alignment, I-F

peaks, operating voltages, parts lists and values, voltage ratings of condensers, wattage ratings of resistors, coil resistance data, etc.

If you don't have a complete set of eleven RIDER MANUALS, you are overlooking one of the surest ways of speeding up your trouble shooting and increasing your profits.

## YOU NEED ALL ELEVEN RIDER MANUALS

Volume	Price	Covering	Volume	Price	Covering
XI	\$10.00	Up to May 15, 1940	VI	\$7.50	1935-36
X	10.00	1939-40	V	7.50	1934-35
IX	10.00	1938-39	IV	7.50	1933-34
VIII	10.00	1937-38	III	7.50	1932-33
VII	10.00	1936-37	II	7.50	1931-32
			I	7.50	1920-31

## JOHN F. RIDER, PUBLISHER, INC.

404 Fourth Avenue New York City

Export Division: Rocke-International Elec. Corp.,  
100 Varick St., N. Y. C. Cable: ARLAB

## VOLUME XI HAS MANY NEW FEATURES

Includes data on FM receivers released up to press time.  
New Index . . . cross-indexed for easy reference.  
New "How It Works" section, with up-to-date information on the latest developments.  
New Vest Pocket Supplement contains much useful information for on-the-spot reference.

**You NEED RIDER MANUALS**

# SERVICE EQUIPMENT



## Sterling meters

\* A new line of pocket and panel meters for AC and DC, features loading-type portable battery tester which has plugs in tips mounted around the case for direct connection to socket. A and B units are tested at normal loads. Type 38A lists, \$2.75. Sterling Mfg. Co., 9205 Detroit Ave., Cleveland, Ohio.—Radio Today.

**Ohmite rheostat**  
\* Continuous winding rheostat for connection to rotary antenna and other equipment for direction indicating. Model DR-125 designed for DC up to 24 volts. Ohmite Mfg. Co., 4835 Flournoy St., Chicago, Ill.—Radio Today.

**Wolco scratch remover**  
\* Designed like a fountain pen, new scratch remover tool has niter-stain in one end, and liquid stain in the other. Made of unbreakable plastic, device has usual pocket.—Radio Today.



## Hickok signal generator

\* Model 188-X wide band crystal controlled signal generator covers 100 kc to 125 mc. Electronic frequency modulation up to 750 kc sweep at 400 cps. Variable audio output 50 to 10,000 cps. 100 and 1,000 kc crystal frequencies. For 110 AC. Hickok Electrical Instrument Co., 10514 Dupont Ave., Cleveland, Ohio.—Radio Today.

## GE test equipment

\* New line of radio service equipment includes two signal generators, oscilloscope, multimeter, tube tester, and capacity-resistance bridge. Bridge measures capacity from 2 mfd. to 200 mf., resistance to 20 megs, power factor, transformer turn ratios, etc. General Electric Co., Bridgeport, Conn.—Radio Today.



## Eicor small motor

\* Tiny motor weighs 1 1/2 lbs., is 2 1/2" x 2 1/2" long. Delivers 1/2 hp. at 3500 rpm. Designed for aircraft hand-switching, antenna reels or any type of remote control. Eicor, Inc., 515 S. Laflin St., Chicago, Ill.—Radio Today.

## Roythex tubes

\* Types CK-655, and CK-655X pentodes for bearing aid use with voltage gain of 225 as resistance coupled amplifier with total B drain of 54 micromps, and A drain of 30 ma. at 1.25 volts (tubes in series). 655X type has tuned leads. Raytheon Production Corp., 65 Chapel St., Newton, Mass.—Radio Today.

**Eby photo alarms**  
\* Complete line of photo electric units for use as alarms, etc. Eight models from "beginner" to "heavy duty" operate from 110 volts 60-60 cycles. Hugh H. Eby, Inc., 4700 Stanton Ave., Philadelphia.—Radio Today.



## Aerovox electrolytics

\* Independent section midgeat electrolytics measured 1 x 2 1/2 for 450 v. 8.8 and 250 v. 16.15 mfd. Type PRS 160 for 2020 mfd. is only 1 x 2 1/2. Entirely independent sections permit circuit flexibility. Aerovox Corp., New Bedford, Mass.—Radio Today.

## IRC wire wound units

\* Complete line of non-inductive resistors from 10 to 200 watts power. Uses special type winding eliminating high capacity and potentials between adjacent turns. International Resistance Co., 401 N. Broad St., Philadelphia.—Radio Today.

## Triplet oscillator

\* Model 1832 wide-range signal generator has heterodyne detector incorporated, coaxial output lead, 100 kc. to 120 mc, output voltage meter, internal or external modulation. Net, \$79.85. Triplet Electrical Inst. Co., Bluffton, Ohio.—Radio Today.



## Advantage relay

\* Midget relay for AC or DC operation will handle 200 watts non-inductive AC loads. Available in DP-ST or DP-DT contacts. Operation from as little as 0.1 watts. Advance Electric Co., 1280 W. 2nd St., Los Angeles, Calif.—Radio Today.



## RTL circuit tester

\* Model 300 multi-tester has 7-inch meter with DC voltages to 1,240 at 5,000 ohms per volt. AC/DC volts to 6,000. Current to 30 amps. ohms to 10 megs. V.T.V.M. ranges of 10 and 20 volts. DB and VU ranges. List, \$44.50. Radiotronic Lab., 1328 Sherman Ave., Evanston, Ill.—Radio Today.

# SOUND X/TRA TUBES

FOR HEAVY DUTY AUDIO WORK

INSURE  
PEAK PERFORMANCE

IN  
AMPLIFIERS,  
PUBLIC ADDRESS  
SYSTEMS, SOUND  
PROJECTORS,  
INTER-OFFICE  
COMMUNICATING SYSTEMS,  
COIN OPERATED REPRODUCERS

Can Be Used to  
REPLACE ORDINARY TUBE  
OF SAME TYPE NUMBER  
For Better Reproduction

The chief requirement for National Union's new SOUND X/TRA tube types is that they must be demonstrably better. In order to accomplish this outstanding performance in SOUND X/TRA types, modifications in construction and details of engineering were incorporated. Emulsion limits are very thick to insure exceptional uniformity, long life and adequate power-handling capacity. Gas and grid current are held to exceptionally low limits to insure minimum distortion, uniformity and stability. Every tube is carefully tested for beam and microphonic noise where necessary, changes have been made to construction such as the use of special alloys, extra spaced supports, double helix heaters and special insulation.

## DEMONSTRABLY BETTER

- \*\*\* NON-MICROPHONIC
  - \*\*\* LOW-HUM LEVEL
  - \*\*\* UNIFORM CHARACTERISTICS
  - \*\*\* NO MATCHING NECESSARY
  - \*\*\* LONG LIFE AT FULL OUTPUT
- Ask Your N.U. Jobber or Write

**NATIONAL UNION**  
57 STATE ST., NEWARK, N. J.  
Radio Corp.

WHAT HAS  
HE GOT THAT  
I HAVEN'T  
GOT?



DID you ever stop to wonder how some servicemen get more business and make more money than you? Here, perhaps, is the answer. The most successful men in any business are those who have learned never to pass up anything that will help them to accomplish an important job in less time.

This practice of taking advantage of every aid to better work in less time is often the only thing that stands between success and failure. In the radio service business, the man who uses all the information he can get to make trouble-shooting quicker and surer is the one who forgoes ahead. He's the man who has always had a complete set of RIDER MANUALS. He knows how foolish it is to depend on his own memory or intuition when complete, authoritative data can be at his fingertips for only 3c a day.

RIDER MANUALS give you, in the most convenient form, complete data on every set you may be called upon to service... data on alignment, I.F.

peaks, operating voltages, parts lists and values, voltage ratings of condensers, wattage ratings of resistors, coil resistance data, etc.

If you don't have a complete set of eleven RIDER MANUALS, you're overlooking data of the utmost value as to speeding up your trouble-shooting and increasing your profits.

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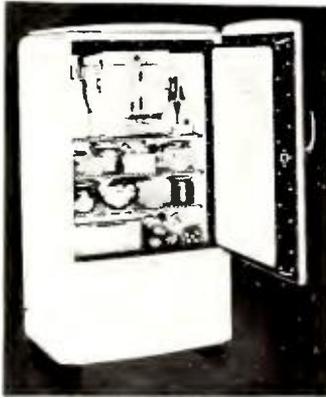
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You NEED RIDER MANUALS

# NEW THINGS



## GE 6-ft. box

★ Model PLB6-40 features vacuum sealed condensing unit, one piece inner and outer shells, Thermocraft insulation, Textolite door frames, porcelain enamel inside and out, 6.2 cubic feet volume with 11.7 sq. feet shelf space. Quick-trays, vegetable pan, water bottle. List. \$161.75. General Electric Co., Bridgeport, Conn.—RADIO TODAY.

## Alden fuse holder

★ Panel mounting fuse holder has slotted and knurled cap for easy removal and replacement of fuse. A new jewel pilot light has front panel bulb replacement feature with mounting feature preventing loosening of assembly. Alden Products Co., Brockton, Mass.—RADIO TODAY.



## Webster-Chicago intercom

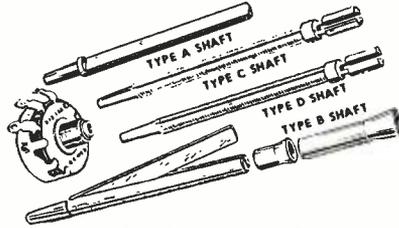
★ Five new intercommunication systems from 2-station to 84 stations, uses the "mute" feature insuring minimum of crosstalk. Locking type illuminated buttons. Volume controls on in and out speech. Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.—RADIO TODAY.

## Cole Instansolder

★ Quick heating soldering iron uses carbon electrode inside of copper tip. Low voltage arc furnishes heat. Unit is complete with iron, cord, transformer, and extra carbon electrodes. No. 39, \$4.88. Cole Radio Works, Caldwell, N. J.—RADIO TODAY.

## UTC varitran

★ Design changes in regulating transformers include glass insulated wire, ballast coils in multi-contact units. Available in 115 or 230 volt models from 2 amps to 44 amps. United Trans. Corp., 150 Varick St., New York, N. Y.—RADIO TODAY.



## IRC plug-in shafts

★ Complete line of plug-in shafts for volume controls reduces stock types. Available in standard flat, split, knurled. All shafts fit midgeat controls. International Resistance Co., 401 N. Broad St., Philadelphia, Pa.—RADIO TODAY.



## Pilot portable

★ Model X-1451, portable has Weave-tex covered cabinet housing superhet 7 tube, AC-DC, battery receiver. Features automatic switch-over, 6 in. speaker, built-in loop. Pilot Radio Corp., 37-06 36 St., Long Island City, N. Y.—RADIO TODAY.

## Browning 5-10 converter

★ Converter for connection to any home or auto set uses 6K8 high gain mixer, electrical band-spread on 5-10 meter bands. 1500 kc. to 5 mc. IF frequency may be tuned in by any set. Net \$24.90. Browning Labs., Inc., Winchester, Mass.—RADIO TODAY.



## Stromberg-Carlson 535-M

★ Key model of new line, 4 band receiver equipped with Labyrinth and special FM Carpinchoe speaker. Built-in knob-controlled shielded loop. Push-button tuning. Phono & television connection. 18th C. English walnut cabinet. \$199.50. Stromberg-Carlson Tel. Mfg. Co., 100 Carlson Rd., Rochester, N. Y.—RADIO TODAY.

## Emerson miniature tubes

★ Replacement tubes for models 379 and 380 are the miniature 1R5, 1S4, 1S5, 1T4, 7-pin baseless types now available in Emerson cartons. Emerson Radio & Phono. Corp., 111 8th Ave., New York, N. Y.—RADIO TODAY.



## Crosley Summer-Special

★ Crosley 8 ft. Shelvador, \$149.95 with famous Crosley features as the Freezorcold, Electro-Saver power unit, removable bottom section for tall bottles, etc., and oven-proof pottery. Crosley Corp., 1329 Arlington St., Cincinnati, Ohio.—RADIO TODAY.

## OHIO SALES EVENT



R. L. Triplett, left, of test equipment fame, shown with Jiggs Keeney of firm's Chicago offices, at sales meet held at Triplett farm near Bluffton, Ohio. Photographer was H. A. Hutchins of National Union.

vicemen are holding their Annual Picnic August 18 at Idlewild Park, Ligonier, Pa. Tickets at \$1 including water sports and eats, may be obtained from jobbers and members. The GE RSA television course started with the August 13 meeting.

## Ken-Rad Has New Radio Program

Now under way on Station WLW is a new program presented by Ken-Rad to help dealers and servicemen sell more radio tubes. The show, which features William H. Hessler, well known editor and analyst of foreign affairs, replaces the 7-year-old "Dr. Kenrad Unsolved Mystery" program.

## FM in Stromberg's Biggest Advertising Drive

"The strongest and most extensive advertising campaign we have run in recent years" is announced by Warren T. Eastwood, ad manager of Stromberg Carlson, as the ads begin to appear in *Saturday Evening Post*, *Life*, *Collier's*, *Time* and *The New Yorker*.

"Ads will feature our all-purpose radios and remind the public that we are recognized by authorities as the leader in FM," said Mr. Eastwood. "Copy themes will be centered around the perfect music it is possible to enjoy on FM broadcasts when you have a Labyrinth and Carpinchoe speaker to reproduce the utmost of FM's musical range."

## National Union Executive Named

S. W. Muldowny has been re-elected president of National Union Radio Corp., at the organization meeting of the Board of Directors. The group named W. R. Wilson as treasurer and E. O. Sandstrom secretary and assistant treasurer.

At the NU annual meeting in Wilmington, Del., the following were elected to the Board of Directors:

S. W. Muldowny, NU president; Henry L. Crowley, president, Henry L. Crowley Mfg. Co.; Paul V. Galvin, president, Galvin Mfg. Co., Chicago; Penn Brook, Sears-Roebuck & Co., Chicago; W. R. Wilson, controller, Philco Corp., and Fred D. Williams, assistant to the president, Philco Corp.

## IRE Conventions in Boston, Los Angeles

Institute of Radio Engineers will hold their annual Western Convention August 28-30 at the Ambassador Hotel, Los Angeles, in joint session with the AIEE. On Aug. 31 a big combined convention of the Pacific and Southwestern divisions of ARRL opens at Long Beach Municipal Auditorium, so that thousands of radio men are expected on the Coast during the period.

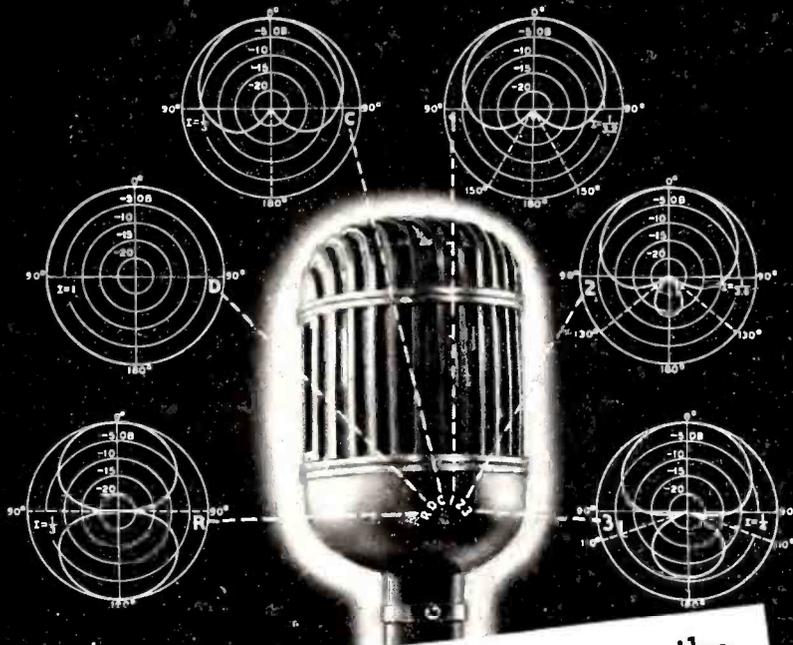
IRE held an earlier convention at the Hotel Statler in Boston last month, with some 1,500 engineers at a 3-day session.

## Pittsburgh RSA Plans Picnic and Tele Course

At the monthly meeting of the RSA chapter of Pittsburgh, held July 9, Ken Vaughn, National V.P., gave a report on Chicago convention. John Marshall discussed an important topic, "Costs in Radio Servicing." The Pittsburgh ser-

# PICK-UP CONTROL

## ...you never dreamed possible



## Western Electric 639B 6-way mike

Now you can have six mikes all in one unit. The 639B Cardioid offers six patterns at the turn of a switch.

You can tackle the toughest P.A. set-ups using the mike as non-directional, bi-directional, or cardioid, or with patterns 1,

2 or 3 which reduce reverberation effect even more than the famous 639A.

You can shift the angle of minimum response to 150°, 130° or 110° to avoid reflections or feedback paths. It's truly the all-purpose mike.

## Western Electric 639 B CARDIOID DIRECTIONAL MIKE

GRAYBAR ELECTRIC CO., Graybar Bldg., New York.  
Please send full details on Western Electric's new  
639B Cardioid Mike. RT-8-40

NAME.....  
ADDRESS.....  
CITY..... STATE.....

## Distributors in Big Showings of SC Line for '41

A number of Stromberg Carlson distributors last month were hosts to dealers in their various areas, for the presentation of the SC 1941 line of radios and radio-phonographs. Dramatic demonstrations of the 7 FM models in the line, with the Labyrinth and the Carpinchoe speakers, were applauded.

Jobbers included Gross Sales, Inc., New York; Tracy & Co., R. I.; Henry O. Berman, Baltimore and Washington; Elliott-Lewis, Philadelphia; Ludwig-Hommel, Pittsburgh; Joseph E. Hornberger, Reading, Pa.

## Rissi Bros. in Expansion Move

A new and larger store has been opened at 1112 W. Warren St., Detroit, Mich., by the prominent distributors, Rissi Bros. The firm has a branch at 443 S. Division St., Grand Rapids, and is now ready to service every dealer in the Michigan area.

Rissi has just announced a 200-page net price catalog, which is free to those who write for it. Complete with thousands of illustrated items, conveniently indexed.

## SW Names Lehr

Stewart Warner has announced the appointment of Lehr Auto & Electrical

# JOBBERS GET BUSY



Here's the annual "get together" of Spokane Radio Co., Spokane, Wash., with manager M. H. Willis at the helm. Spokane reps all the way from Alaska to Montana attended the 3-day event, as well as Raytheon execs Earl Dietrich and Don Burcham, and R. C. James, Jr., factory rep.

Supply Co., 16 W. 61st St., New York City, as distributors for SW radio in Metropolitan New York. Lehr will emphasize a complete warehouse stock and display of the line; prompt and efficient service to dealers.

## New Victrolas Get Applause From the Field

A new kind of reception from retail dealers has been given the new RCA Victrolas, it was noted during the recent series of presentations by jobbers throughout the country.

Seven of the RCA Victor executives who attended a number of the meetings have returned to Camden and they report "unprecedented enthusiasm." Fred D. Wilson, sales manager of field activities, went to meetings in the Middle West and says that "never before in our history has such an enthusiastic reception greeted the new models in every market."

## Million Gets Acceptance in Southeast

Unusual acceptance for the new Million test equipment and sound products is reported in the southeastern areas of the U.S., according to John W. Million, Jr., who recently took a car full of samples and made a trip through that territory. He was accompanied by Herb Erickson, Asheville, N. C., newest representative in that country.

The two executives took the popular-priced test equipment and sound units through North and South Carolina, Georgia and Florida, and got "a gratifying number of orders."

## Farnsworth Jobber

White Hardware Company of Savannah, Ga., has been appointed distributor of Farnsworth radio receivers and radio-phonograph combinations. In announcing the new appointment, Pierre Boucheron, Farnsworth general sales manager, said the list of Farnsworth distributors now totals 54.

**VELOCITY** **AMPERITE** **P.S. DYNAMIC**

**2 GREAT MIKES!**



**AMPERITE VELOCITY**  
with exclusive  
**ACOUSTIC COMPENSATOR**

Actually a combination Velocity-Dynamic, having best features of both types.

Model RBHk, hi-imp: (RBMk, 200 ohms); LIST \$42.00  
Model BBSHk, hi-imp: (RBSk, 200 ohms); LIST \$32.00



**ELIPSOID PICKUP PATTERN**

Features new superior **UNI-DIRECTIONAL** elipsoid pickup pattern. **ELIMINATES FEEDBACK TROUBLE. HAS FLAT RESPONSE.**

Model PGH, hi-imp: (PGL, 200 ohms); 40-10,000 CPS,..... Chrome LIST \$32.00  
Model PGAH, hi-imp: (PGAL, 200 ohms); 70-8000 CPS,..... Chrome LIST \$25.00

**AMPERITE KONTAK MIKE**

Puts musical instruments across. Beautiful results with any amplifier, record player, and most radio sets.

MODEL SKH (hi-imp).....LIST \$12.00  
MODEL KKH, with hand volume control, LIST \$18.00  
Plug extra .....LIST \$1.50

AMPERITE

WRITE FOR FREE SALES AIDS  
561 BROADWAY  
NEW YORK



## "Twin Commode" Idea Catches On

"A real hit has been scored, according to distributors' orders, by our Twin Period Commodes," is the report from Sentinel Radio Corp., 2020 Ridge Ave., Evanston, Ill. This was a highlight of a general statement pointing out that unusual acceptance has been forthcoming for the firm's "complete AC line, the sharply lower priced battery sets, and the full line of record makers, record changers and phonograph combinations in period consoles."

The "Twin Commode" idea gives dealers a chance to fit into modern home decorating schemes and sell two authentic Sheraton cabinets in handsome mahogany. Model 220D is a 7-tube radio and may be sold separately; model RCD plays records through the radio and has an automatic changer.

## Schott Names Group of New Reps

From Walter L. Schott, of the company of that name which makes "Walsco" products, comes the news of the appointment of new agents. The firm is now represented in all parts of U.S. and Canada.

Among U.S. appointments are F. E. Harding, Minneapolis, Minn.; James P. Hermans, San Francisco; Ted Keller, Council Bluffs, Iowa; B. L. MacPherson, Ft. Wayne, Ind.; Geo. D. Norris, Seattle, Wash.; and G. O. Tanner, Pittsburgh, Pa.

Ruburn Agencies, 11 Warren St., New York City, are sole exporters, and exclusive agent for Canada is Snider Radioelectric, Ltd., Montreal, Quebec.

## Clarion Has Trio of New Reps

Several sales representatives in the Michigan and Eastern seaboard territories have been announced by Transformer Corp. of America, makers of Clarion sound products.

The Michigan area will be handled by Art Adams of the R. A. Adams Co. in Detroit. Pennsylvania, Metropolitan New York City, New Jersey, Delaware, Maryland and Washington, D. C., will be covered by Harold Weiler. Mr. Hugh Snyder has taken over the Clarion line in Virginia, West Virginia, the Carolinas, and Florida.

## 47 Teams in Ken-Rad's Big Transmitter Hunt

Another Treasure Hunt sponsored by the Ken-Rad Tube & Lamp Corp., Owensboro, Ky., has been held in the Chicago area, with 119 engineers competing in the highly successful event. This time, a transmitter was hidden some 42 miles airline from a starting point, and engineers with directional receivers in their cars set out to locate it. Forty-seven teams were entered.

Winners were Jeannie Lytle, Chet Lytle and Red Parr of the Wells-Gardner engineering department, who

found the transmitter after driving 73 miles in two hours and three minutes. Second and third places went to United Airlines teams, and fourth was won by Jones, Harrigan, Phalen and Altman of Radio Products Co., who were winners in a Hunt last October. The latter team used a uni-directional receiver built around the newest Admiral circuit.

## Victor Jobber

The Strauss-Frank Co., San Antonio and Houston, Texas, is now distributor for all RCA Victor products in the South Texas area, according to Fred D. Wilson, RCA manager of field sales activities.

## Freed Named by General Television

Announcement has been made by General Television & Radio Corp., whose new address is 1340 N. Homan Ave., Chicago, of the appointment of Arthur Freed as General's sales representative in the NY Metropolitan and northern New Jersey areas. The Freed Co. is located at 230 Fifth Ave., New York City.

Mr. Freed, who recently made an extensive tour of the entire General plant while on a Chicago visit, will maintain both offices and a show room for the complete line at the Fifth Avenue address; dealers are cordially invited.



Model 188X

## NEW HICKOK WIDE BAND SIGNAL GENERATOR Crystal Controlled

• Yes, manufacturer's servicing instructions specify the use of a wide band Signal Generator for alignment of F.M. and Television Receivers. As usual, HICKOK is prompt to offer new, efficient equipment to meet this need with this Electronic Wide Band Signal Generator with Crystal Control for servicing all F.M. and A.M. receivers including especially these latest 1941 models.

AMONG THE 12 OUTPUT SELECTIONS (ALL FUNDAMENTAL FREQUENCIES) OF THIS OUTSTANDING INSTRUMENT ARE THE FOLLOWING:

- Wide band frequency modulated R.F. output (750 KC sweep—60 cycle), 100 KC to 133 megacycles.
- Frequency modulated R.F. output (150 KC sweep—400 cycle), 1,000 KC to 133 megacycles.
- Frequency modulated R.F. output (30 KC sweep), 100 KC to 110 megacycles.
- Amplitude modulated R.F. output (400 cycles), 100 KC to 110 megacycles.
- Unmodulated R.F. output 100 KC to 110 megacycles.
- Audio frequency outputs of 400 cycles fixed and 50 to 10,000 variable.
- Crystal controlled outputs, modulated or unmodulated, with accuracy better than .01% to 10 megacycles in 100 KC steps and to 150 megacycles in 1 megacycle steps.
- Synchronized sweep voltage for oscillograph use.

OTHER NEW HICKOK INSTRUMENTS ALSO FOR FREQUENCY MODULATION AND TELEVISION TESTING ARE: OSCILLOGRAPH, equipped with wide band modulation. TRACEOMETER, unequalled for signal tracing in F.M. and A.M. Receivers—Has built-in speaker. SET TESTER No. 133, New precision built, laboratory quality instrument, very sensitive, tests dry batteries. Vacuum Tube Voltmeters, Tube and Set Testers, Crystal Controlled Micro Volt Signal Generators, Zero Current Set Testers, Vibrator and Substitute Speaker Testers, Volt-Ampere-Wattmeter, Appliance Testers, Volt-Ohm-Milliammeter, Tube Testers. Electronic Bridge.

Complete Information in new Catalog #120.

MAIL THIS COUPON for Your Copy

ADDRESS ALL INQUIRIES TO  
THE HICKOK ELECTRICAL INSTRUMENT CO.  
10514 DUPONT AVE. • CLEVELAND, OHIO, U.S.A.

Now! YOU CAN MEET  
MANUFACTURER'S SPECIFICATIONS FOR F. M. and  
TELEVISION SERVICING  
with this . . . . .



New Radio Tube and Set Tester  
No. 510 X

An outstanding instrument that tests all tubes by measuring Dynamic Mutual Conductance (Patented Hickok Circuit) and tests sets through the measurement of Volts, Ohms, Milliampere, Capacity, Inductance, Leakage and Decibels.

THE HICKOK ELECTRICAL INSTRUMENT CO.,  
10514 Dupont Ave.,  
Cleveland, Ohio RT  
Gentlemen:  
Please send your new Catalog No. 120.  
Name .....  
Address .....  
City..... State.....

# NEW SALES HELPS

## Election Angle in New Display

A sales-making display piece with the "Listen Before You Vote" appeal emphasized is now forthcoming to dealers from distributors for the Sentinel Radio Corp., 2020 Ridge Ave., Evanston, Ill. This gold-and-blue fixture has room for nine sets and all of them can be plugged in through the back, for demonstration. The display takes less than three square feet of floor, but it can be used as a center of a grouping of Sentinel consoles,



period cabinets, combinations and record makers.

The release of this sales help is one of the first steps in the company's big merchandising drive on its 1941 line.

## New Radio Features in Color

One of Stromberg Carlson's new sales helps designed to tie in with the company's big new national advertising campaign is an eased card in four colors. This handsome display lists the sales points of the new SC "all-purpose" radios, including FM, standard and short-wave reception; recorded music, Labyrinth, furniture design, finishes, etc.

Stromberg also has a new red-and-black counter card, an eased one, featuring an explanation of the Labyrinth as given by the text book, "Applied Acoustics."

## A Pair of Sellers From GE

A striking display for radio windows for floors is the new General Electric one with the giant size "maestro hands" which fit around a GE console with lively copy about the "Golden



Tone" radio line. A spectacular musical theme is used throughout.

GE is also ready with another cardboard display piece, a salesman of the "X-ray back" type. To be thumb-tacked across the back of a console chassis, it brings interesting attention to 12 of the GE selling points.

## Announcer Card from Worner

The Worner Products Corp., 1019 Lake St., Chicago, is ready with a new three-color display card featuring the Model 601 announcer, for use in windows, on counters or on walls. This card is being distributed to jobbers.

## COLUMBIA COLORS



Flashing the story of Columbia Recording Corp.'s new needles is this card in four colors, 22" by 25". A lively display for record dealers.

**PREPARE NOW!**  
It's Easier to Keep Abreast Of These New Developments Than It Will Be To Catch Up With Them!



Your future in the servicing business will depend largely upon your knowledge of these new developments in radio. NOW is the time to prepare . . . if you expect to be able to compete successfully for the service that will soon be required. Don't put it off! Start now, by devoting a few minutes each day to study of these easy-to-understand books by John Rider. You can look them over at your jobber's. Do it today!

### FREQUENCY MODULATION

- by John F. Rider

The most talked of subject of the moment. Rider offers this introduction to frequency modulation with special attention to F-M receivers and the problems they will present to the serviceman. Get this now—be ready. 136 pages—only \$1.00.

### SERVICING BY SIGNAL TRACING

by John F. Rider

Use the system of servicing which is proved and endorsed, fastest—most modern, the system you can apply to all receivers regardless of age, type or make. Servicing by Signal Tracing operates independently of every limiting factor heretofore encountered. In this new book you learn how all receivers are brought to a common servicing level. Learn how components receive a functional check! This is the most definite and positive form of trouble localization. Over 360 pages—hard covers—only \$2.00.

### OTHER RIDER BOOKS YOU NEED

The Oscillator At Work—256 pages—illustrated—\$1.50. Automatic Frequency Control Systems—144 pages—hard covers—\$1.00. The Cathode Ray Tube At Work—336 pages—over 450 illustrations—\$2.50. Hour a Day With Rider Books on subjects you should know—hard covers—60c each. And, of course—All Eleven Rider Manuals.

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Read RIDER BOOKS



# KEN-RAD

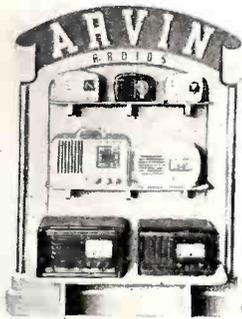


## DEPENDABLE RADIO TUBES

The progressive dealer will find Ken-Rad Dependable Radio Tubes worth investigating. They sell easily because users are real boosters.

KEN-RAD TUBE & LAMP CORP. OWENSBORO, KY.  
Export Dept., 116 Broad St., New York, U.S.A. Cable Address: Minthorn, New York

## Arvin Out With Eye-Catcher



Interesting colors and sturdy build features of a new Arvin point-of-sale display, now being released as part of the firm's big sales drive on the line. It's 5 ft. high, 3 ft. wide, with "contact power" emphasized by the manufacturer, Noblitt-Sparks Industries, Inc., Columbus, Ind. Free to dealers who order at least one each of any six Arvin Headliner models from the company's jobbers.

## Colorful Group of Motorola Displays

A variety of hard-working and colorful displays for window, counter, and floor use have been issued for Motorola dealers by Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago.

The novel revolving display shown herewith holds 8 table models, for window or counter.

Other lively pieces include a 3-unit "Money-Maker" which holds 12 table



models and two consoles, suggested as a center attraction for a dealer's home radio dept. Also, there's a Motorola 4-set counter display, and a streamlined chairside stand for showing and demonstrating table model phono-radios.

## Calendars Are Business Builders

Art-mount calendars in full color, presented in a choice of five subjects are being prepared for dealers and servicemen, by National Union Radio Corp., 57 State St., Newark, N. J. These are for the 1941 season, available at reasonable prices from NU jobbers.

The calendars are suggested as an effective way to get the dealer's name, address and phone number permanently in the homes of prospects.

## Political Campaign Window Streamer



A 3-color political window streamer to help Sylvania radio servicemen and dealers promote the sale of tubes during the present political presidential campaign is announced by Hygrade Sylvania Corp. Caricatures of the Republican Elephant and the Democratic Donkey add interest.

The rousing American color scheme of red, white and blue gives the 36" x 12" poster a patriotic, cheerful tone. Gummed stickers are furnished.

## Okeh Records Benefited by Sales Kits

Now available to dealers are complete promotion kits issued by Columbia Recording Corp., 1473 Barnum Ave., Bridgeport, Conn., as part of the CRC drive on the new 35c Okeh label which has replaced the Vocalion tag.

Kits include posters, streamers, window displays, artist photos, easel cards, and a string of point-of-sale materials to help dealers sell "the greatest array of talent on any 35c label."

# Easy, Low-Cost Home Recording



Simplified: To cut records, place cutting arm over record blank. To play back, place pickup on record. It's just as easy as that.

GETTING new business and plenty of it is simple with the new General Industries Home Recording Unit. Its simplicity, low cost and fine performance make it a joy eagerly welcomed in countless homes. Just as well liked by business executives—lawyers—musicians—drama, music and public-speaking teachers.

Up-to-the-minute pickup and cutting arms. Special design, powerful rim-drive motor. Weighted turntable with retractable record-driving pin. Complete unit, mounted ready for easy installation. Order one today for testing.



New, Light, "LX" Rim-Drive GI Motor

Lower in cost, lighter in weight and more compact in design. Ample powerful. Induction type. Silent. Fan-cooled—no overheating in small, enclosed, cases or cabinets.

Send NOW . . . for new free catalog and prices

The GENERAL INDUSTRIES CO.

4038 TAYLOR ST. ELYRIA, OHIO

# FOR BIGGER PROFITS!

## Vote THE SENTINEL TICKET

● There's a landslide of values in the great new Sentinel Line. It's a winning ticket from every angle. Brings new profit opportunity to the retailer with a line of receivers enjoying a 20-year reputation for quality and freedom from service. Get out your pencil now and vote by sending for full details of this winning line.

SENTINEL RADIO CORP., 2020 Ridge Ave., Dept. RT-8, Evanston, Ill.

# Sentinel

Quality Radio Since 1920

- Generous Dealer Discounts
- Lower Prices, Greater Values
- Electric and Battery Models
- New Portables—Combinations
- New 3-Way Home Recorder
- Advertised to 5½ Million Prospects Monthly

**☒ Your BEST ELECTION BET!**



**\$29.40 Dealer Net Price**  
Complete

**MORNING GLORY PROJECTOR, P.M. UNIT and BRACKET**  
(18-25 Watts, 3½ ft. Air Column)

EVERYTHING you can ask for in a High-Powered Speaker for Election P. A. Work . . .  
★ 100% Weather and Mechanical Protection  
★ . . . High Acoustic Transfer Efficiency . . .  
★ Super-Power Projection Qualities . . .  
★ Crisp, Remarkable High Fidelity . . . Built ruggedly for the hard service of sound truck application . . . Sturdy mounting bracket supplied. There isn't a doubt . . . the "Morning Glory" will win your vote ★ See your Jobber . . . or send for CATALOG F-40 describing the entire line of ATLAS Sound Speakers and Accessories.

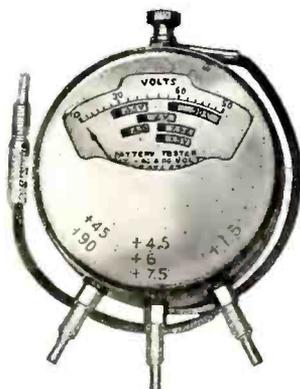


Write Department RT-8  
**ATLAS SOUND CORPORATION**  
1445 39th Street Brooklyn, N. Y.

**NEW STERLING POCKET METERS**

TEST "A" AND "B" BATTERIES OF PORTABLE RADIO SETS

**YOU NEED THIS LINE NOW!**



No. 42A STERLING Graphic General Tester

for all "A" and "B" batteries of Portable Radio Sets. Designed especially for dealers and servicemen. Old type testers won't do.

DEALER'S NET PRICE . . . \$3.60

Carried by All Leading Distributors

Write for descriptive bulletin No. 515-0.

**THE STERLING MFG. CO.**  
9205 Detroit Ave. Cleveland, O.

**RCA Announces Many-Featured Victrolas**

A brand new group of console and table model RCA Victrolas with "many important advances which improve tone quality and performance to a degree never before achieved" have been unveiled by E. W. Butler, manager of the RCA Victor Radio, Phonograph and Television division. Advanced styling is featured throughout the models.

New instruments include three console grand models in the "Deluxe" series, four models in the "Anniversary" series (including two with home recording), four consoles in the "Master" series (including one with home recording), and two table sets. Also a new automatic record changing Victrola attachment that converts any radio into an automatic phonograph. RCA Victor distributors applauded the new line enthusiastically at previews in Chicago and Atlantic City.

List prices range from \$30 to \$300.

**Queens Dealers at Gala Outing**

A big event for radio and electrical dealers of Queens, N. Y., is the Third Annual Outing of the Electrical Appliance Merchants Ass'n. of Queens County, to be held at Karatsontli's, Glenwood Landing, L. I., on Aug. 14th.

There will be prizes, games, swimming, luncheon and banquet, boating, etc., and the election of officers. Reservations are made through Joseph D. Loscalzo, 30-11 Steinway St., Astoria, N. Y.; Charles F. Revel, 39-34 Bell Ave., Bayside, N. Y.; or Alfred Richards, 96-07 Liberty Ave., Ozone Park, N. Y.

**Petrie Names Three Sales Heads**

R. I. Petrie, the new vice president and general sales manager, The Crosley Corp., has named three division sales managers to direct sales in the eastern, western and southern sections of the U. S.

N. C. MacDonald will be eastern sales manager with headquarters in New York City. B. T. Roe has been named western sales manager, with headquarters in Chicago. S. D. Camper has been appointed southern sales manager and will have headquarters at Atlanta.

**Johnson Buys Bassett Firm**

The E. F. Johnson Company, Waseca, Minn., has purchased all assets connected with the antenna and concentric cable business of the Bassett Radio Mfg. Co., Niles, Mich. The deal includes all material inventories, tools and equipment, patents, and engineering files. Equipment has been moved to Waseca, where the Johnson company will continue to manufacture and market through its jobbers, the flexible concentric cable, rotary beam antennas, and high frequency coaxial antennas.

**WALSCO**



PRODUCTS TO HELP THE RADIO MAN



With the amazing new patented automatic WalSCO Staple Driver YOU CAN

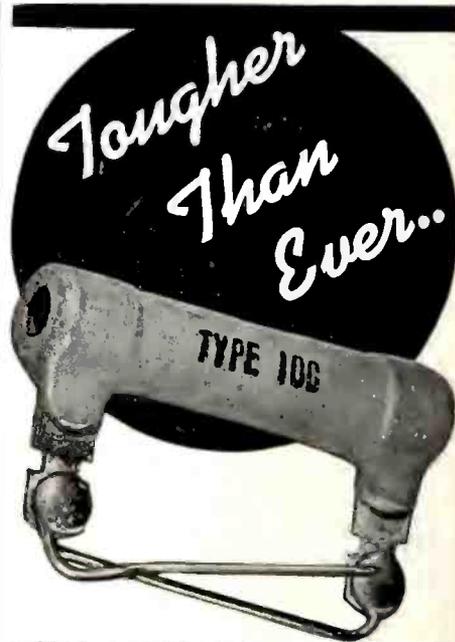
- 1) install wires in moldings, corners, behind radiators, where you cannot work with a hammer.
  - 2) drive staples into hard walls, like mortar, plaster, etc.
  - 3) make the installation job so neat, that it will hardly show.
  - 4) save 50% or more on time for putting up wires.
- The WalSCO Staple Driver holds about 24 staples and feeds them automatically (takes 4 seconds to reload). Staples come in ivory, brown, blue—for wires or cables up to 3/4" diameter. Simple to operate. Jam proof. Fully guaranteed.

OTHER WALSCO PRODUCTS: Cements & Solvents—Crystallizing Lacquers—Dial Cables—Cabinet Refinishing Kits—Complete Line of Cabinet Patching Materials—A Sensational New Scratch Remover

**FREE** WRITE FOR CATALOG NO. B-41 ABOUT ALL WALSCO PRODUCTS

**WALSCO PRODUCTS**

Mfd. by WALTER L. SCHOTT COMPANY  
5264 W. PICO BLVD. NEW YORK OFFICE  
LOS ANGELES, CALIF. 258 BROADWAY



★ Still tougher resistors for your toughest jobs—that's the idea behind CLAROSTATE GREENOHMS. These unique cement-coated power resistors are winning over servicemen everywhere, by actual trial. Just as they have won over "hams," instrument makers, commercial equipment manufacturers, and others, who insist on quality components. ★ Ask local Jobber for Greenohms—10 to 200 watts, fixed and adjustable types. ★ Or write us for data—281 N. 6th St., Brooklyn, N. Y.



## Sylvania Expert Reveals Export Trends

The new chairman of the RMA export committee is W. A. Coogan, foreign sales manager of Hygrade Sylvania Corp. Mr. Coogan is a widely traveled expert in markets abroad, and just recently returned from a tour of South America, Mexico, Canal Zone, Puerto Rico and Cuba.

Vital new aspects of trade and business in these countries were reported by Mr. Coogan, who observed that heavy surpluses are piling up in South America because European nations no longer take their products. He found that South Americans were more keenly aware of the economic factors involved in the war, than people in the U.S., because of the impact on home business conditions.

Mr. Coogan reported that the radio parts business looks favorable abroad, although the buying of sets has waned because some countries have started their own manufacture and assembly, and because American firms do not make units appropriate for tropical climatic conditions.

## Weinig Heads Wincharger Corp.

Robert F. Weinig, who has been in charge of farm radio sales for Zenith Radio Corp., has been named vice-president and general manager of Zenith's subsidiary, Wincharger Corp., Sioux City, Iowa, according to news from Zenith president E. F. McDonald, Jr.

W. W. Watts, who formerly held the Wincharger post, has resigned, and will come East to enter business.

## Zephyr Has Line of Recorders

In the list of manufacturers of recorders and recording blanks, which appeared in RADIO TODAY for July, page 19, the name of Zephyr Products Corp., 67 W. 47th St., New York City, should have been among those who make recorders. The Zephyr firm is a subsidiary of Sound Devices Co., 160 E. 116th St., New York City, makers of recording blanks.

## Hudson Is Factory Rep for Du Mont

Appointment of G. W. Hudson, 3308 East Broad St., Richmond, Va., as factory representative in Eastern Tennessee, Virginia and the Carolinas, has been announced by the Allen B. Du Mont Laboratories, Inc., Passaic, N. J.

Mr. Hudson is a specialist in engineering sales service to buyers of industrial cathode-ray tube equipment or television equipment.

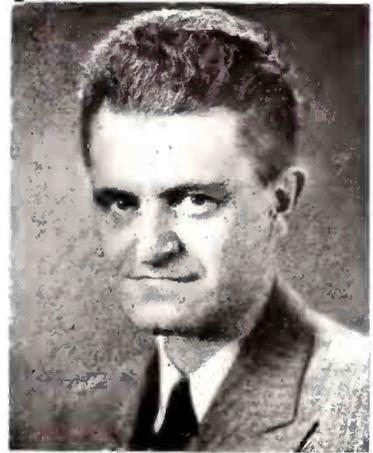
## Talk-A-Phone Expands

New and greatly enlarged quarters have been taken by the Talk-A-Phone Mfg. Co., makers of intercommunication systems, call systems and amplifiers, formerly located at 1847 S. Millard Ave., Chicago. The address is now 1219 W. Van Buren St., Chicago.

# SELL MOBILE P. A. TO THE POLITICOS this year . . . .



Advanced design in combination 6 volt-110 volt mobile equipment results in low hum and noise level, high overload capacity. Hear this new amplifier.



MR. JOHN ERWOOD  
President

says "Model 1420-M mobile system—designed by the originator of mobile equipment has plenty of power with ample reserve capacity."

The Sound Engineers' biggest problem is stressed in all Erwood designs. Each item has been designed to insure sound satisfaction under various acoustic conditions and wide variations in power supply.

Write for your free copy of new catalog hot off the press.

Be sure to enter the ERWOOD Slogan Contest. \$350. in merchandise. Write for free information.

**Erwood SOUND EQUIPMENT CO.**  
222 W. HURON ST. • CHICAGO, ILL.

## FOR THOSE WHO WANT THE BEST

# MONTHS AHEAD OF COMPETITION

Hytron with its Bantam\* GT line was more than a year ahead of all competitors. The Bantam GT, originated and perfected by Hytron, is now the preferred tube type—recognized by all tube and radio set manufacturers—endorsed by the RMA as interchangeable with certain "G" types.

In 1939 Hytron developed the instant-heating beam-power tetrode for mobile communications, followed in 1940 by a companion twin-triode, thus revolutionizing police radio communications and thereby increasing protection to the public.

The now widely-publicized miniature pentode tubes were first conceived and perfected by Hytron. Today these miniature Bantam Jr. tubes have been in production for two years and are in use in tens of thousands of wearable vacuum-tube hearing aids. Illustrated at the right is the newest of Hytron's miniatures, the Super Bantam, setting a new record for small size and performance.

In short, Hytron is a leader—not because of its size—not because of millions spent in promotions, but because of the ability of its executives and engineers to see ahead—because of its important developments and contributions to radio.

1940—OUR TWENTIETH YEAR

**HYTRON CORPORATION**

23 N. DARBY ST. SALEM, MASS.



1937

ABOVE—Bantam\* GT receiving tube.

LEFT—Original Bantam\* Junior miniature.

CENTER—Super Bantam\* miniature.

Illustrations actual size

\*T-M registered



1938



1940



**NOW YOU CAN BUY THESE BETTER  
AUTO RADIO VIBRATORS  
AT NO PREMIUM IN PRICE**

Countless thousands of James Vibrapowr units have solved the Auto Vibrator service problem for those servicemen who replace with the best. They paid a premium for extra quality—but they did a better service job. Now these same James Vibrapowr units may be had at no premium in price. No longer need the serviceman compromise quality in his quest for economy. These new lower prices on James Vibrapowr units are made possible through increased manufacturing facilities—as well as to an ever increasing sales volume. In design—in engineering and in the many exclusive features they embody they stand head and shoulders above the field.

DeLuxe Push-pull non-synchronous James Vibrapowr units, formerly \$3.95 list, are now \$2.95. Standard Units, formerly listing at \$2.95, are now \$2.25. The Push-pull synchronous type lists at \$4.95. The universal unit that serves over 80% of replacement calls lists at only \$1.75. There is a James Vibrapowr unit to meet every replacement requirement. Write for specification sheets. LITERATURE ON REQUEST

**NEW  
LOWER  
PRICES**

**JAMES VIBRAPOWR CO., INC.**  
CHICAGO ILLINOIS

**RADIO - MUSIC  
NUMBER**

**SELLING SOUND  
SECTION**

*Featuring  
the September Issue of*



**A No. 1 OPPORTUNITY FOR  
READERS AND ADVERTISERS**

**Mr. Radio Serviceman:**

**RSA MEANS BUSINESS!**

New business promotion plans and new member-helps spell increased profits for RSA members at the start of the new season. Watch for the RSA Replacement Parts Guide—New Broadcast Promotions—New Member Helps! Don't be the last man in your neighborhood to join RSA. Send the coupon Today!

**MAIL THIS COUPON NOW!**

**RADIO SERVICEMEN OF AMERICA, INC.**  
304 South Dearborn Street  
Chicago, Illinois

I am interested in RSA Membership. Tell me about it.

Name .....

Address .....

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

RT-740

*Let's Grow Together  
in 1940*



**RADIO SERVICEMEN  
OF AMERICA, Inc.**

*Reliable Service Assured*

**JOE MARTY, JR., EXECUTIVE SECRETARY  
304 S. DEARBORN STREET, CHICAGO, U.S.A.**



Radio men try a lunch in the Wisconsin shade—R. Y. Fitzpatrick, left, of Radio Today's Chicago offices, and Gustav Marx, Milwaukee advertising executive.

### Average Folks Can Now Buy Classical Discs for \$1

A big impetus to dealer sales is seen in Columbia Recording Corp.'s dramatic announcement that Columbia Masterworks prices have been reduced as much as 50 per cent. New, better records made by an imposing string of top artists, will be priced at \$1 for the 12-in. size (formerly \$2) and 75c for the 10-in. size (formerly \$1.50).

In the announcement by CRC president Edward Wallerstein, it was revealed too that the NY Philharmonic orchestra, directed by John Barbirolli, and Leopold Stokowsky conducting the all-American Youth Orchestra, have been added to Columbia lists. Also an exclusive contract with the Budapest String Quartet has been signed.

Mr. Wallerstein pointed out that "After two years of preparation . . . we now put much of the greatest music in the world within the reach of everyone." The records themselves are described as superior because of recent manufacturing improvements.

Important symphonies in the Masterworks series include those of Cleveland, Minneapolis, Chicago, Pittsburgh, Columbia Broadcasting, Andre Kostelanetz, and many others.

The newly priced records will be backed by a \$300,000 promotion drive, with coast-to-coast radio spot coverage

from Sept. 3rd to Xmas. Two-page ads in *Life* magazine will run for the same period, and local newspaper ads are planned. Half-hour local recorded radio programs are set nationally, and new style point-of-sale materials include posters, streamers, display cards, etc.

The whole Columbia classical catalog is affected by the new prices, and dealer rebates will be arranged for discs stocked before the change.

### Brooklyn Dealers in Outing

Dealers in Brooklyn, N. Y., got together July 28th for a big social event at Heckscher State Park, East Islip, L. I.—the second annual outing of the Electrical Appliance Dealers Association of Brooklyn, Inc.

Manufacturers and distributors representatives, in addition to the retailers, showed up for the games, refreshments and general fun.

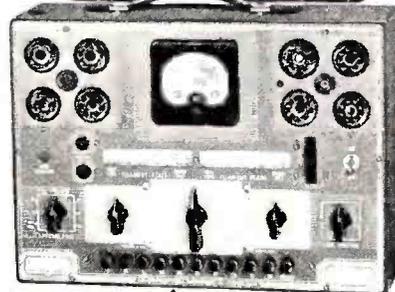
### Shadley to Sonora

Sonora Radio & Television Corp., Chicago, has a new comptroller, Ray E. Shadley, just appointed by Joe Gerl, Sonora president. The company is in the midst of an extensive expansion program.



AUGUST, 1940

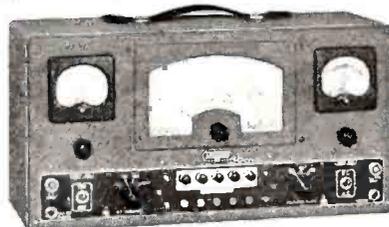
It takes  
a JACKSON  
to test tubes  
accurately!



*Dynamic*

method doubles accuracy, boosts profits

Tests prove that Jackson Dynamic Tube Testers are more accurate! Frequently a Jackson finds "poor" tubes which might pass for "good" in ordinary testers. Model illustrated is the 636. Has built-in roll chart, full range filament selection marked directly in volts, high voltage power supply, sockets for latest tubes and additional "spares." Price \$29.95 net.



### SIGNAL ANALYZERS

Testing with Jackson Signal Analyzers is direct, positive and easy. Measures the signal itself, tracing its path through the receiver to the exact point of the trouble. It shows ALL results instantly on direct reading meters. Model 660. Price complete \$79.50.

**OSCILLATORS** Jackson Audio-Oscillators operate on a new basic principle — audio frequency voltage is developed at its fundamental frequency. Sets new high standard for this type of instrument performance.

**FREE!** Write today for this vitally important folder — "Learn the Truth About Dynamic Tube Testers."

THE JACKSON ELECTRICAL INSTRUMENT CO., Dayton, Ohio



LEARN THE TRUTH ABOUT  
*Dynamic*  
TUBE TESTERS  
Learn how to see through false claims . . . Don't buy any test tubes until you know ALL the facts . . . Read the manual . . . *Dynamic Tube Tester*

**EXACT DUPLICATE  
Replacement  
Condensers**



• There's one sure way to save money, time, trouble, when replacing worn-out condensers. That's by using AEROVOX Exact-Duplicate Replacement Condensers. Such matched units FIT right, LOOK right, WORK right. Install them—and forget them. No return calls to MAKE GOOD.

Ask your jobber for latest listings. Try an exact-duplicate for that set you're servicing. Or write us for data.



**SPECIAL RECORDINGS**

Hymns, Sacred Songs Attract Church Patronage

SELECTED sacred and semi-sacred compositions—the favorites of millions. Meet the present amazing demand for selections of a serious type. Reproduced in acetate low-scratch materials. Advertised in an influential list of religious publications.

Prospective customers for these records know what they want, and only perfected renditions are necessary to sell them. It is also a fact that such renditions of sacred songs, hymns, suitable for all denominations, are extremely rare. Equip yourself to meet this situation. You can—with profit.

A number of these records are made especially for musical towers or carillons—no scratch, two-sided acetate 12" transcriptions. All suitable for both Catholic and Protestant churches, religious organizations, lodges, etc.

Write for list.

**SUNDT ENGINEERING CO.**  
4763 RAVENSWOOD AVE. CHICAGO, ILL.

SUNDT ENGINEERING CO.  
4763 Ravenswood Ave.  
Chicago, Ill.

Please send list of records, and further information on music for carillons, etc.

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

## NEW BOOKLETS

"Tru-Fidelity" contains classifications and descriptions of Thordarson broadcast components. Ask for No. 500-E, addressing request to Thordarson Elec. Mfg. Co., 500 W. Huron St., Chicago, Ill.

1940 list price catalog of Spokane Radio Co., Inc., 611 First Ave., Spokane, Wash., is devoted to a complete line of nationally advertised radio and sound equipment.

J.F.D. 1940 catalog includes data on auto antennas and installation accessories, home antennas, ballast resistors, recording discs, needles, etc., among others in their complete line.

A manual on the characteristics and applications of Lumarith Protectoid for the electrical industry, has just been issued by the Celluloid Corp., 180 Madison Ave., New York, N. Y.

New catalog, PS-404, incorporates complete listing of United Transformer Corp.'s entire 1940-41 line of transformer components. Address request to 150 Varick St., N. Y. C., or at your local jobber.

Four-page pamphlet on fluorescent lamp power-factor correction has been prepared by Aerovox Corp., New Bedford, Mass.

Two new pamphlets describing 2 books by Audio Devices, Inc., 1600 Broadway, N. Y. C. namely, "Fun with a Recorder," price, \$1 and "How to Make Good Recordings," \$1.25.

John Meck Industries offer much practical data in their new bulletin on speaker matching problems in designing public address systems.

Stromberg-Carlson's 1941 line of 30 new radio models is shown in a circular just off the press, and also an explanation of Frequency Modulation.

Technical bulletins covering 3 and 5 in. DuMont cathode ray tubes for oscilloscope applications are available by addressing Allen B. DuMont Labs, Inc., 2 Main Ave., Passaic, N. J.

No. 141, a 32-page catalog of GC's radio chemicals and products can be had on request. General Cement Mfg. Co., Rockford, Ill.

American Phenolic Corp.'s new 1941 catalog, No. 62, gives specifications, prices and illustrations of the most popular items in their line of sockets, connectors and accessories. Address 1250 Van Buren St., Chicago, Ill.

Ranco replacement thermostat controls for all makes of electric refrigerators are described in a folder issued by Ranco, Inc., 601 W. Fifth Ave., Columbus, Ohio.

An illustrated 12-page IRC catalog printed in Spanish, lists IRC resistances for every need and will be supplied free. International Resistance Co., 401 N. Broad St., Philadelphia, Pa.

## OXFORD Scores Again!



MODEL 3ZM-CA

## NEW TINY PERMAG

## 3" SPEAKER IN CABINET

Measuring only 4" x 4 1/4" x 2", Model 3ZM-CA PERMAG extension speaker will fit in any nook or corner at home, office, factory, store, where remote speakers are desired. List only \$3.50.

Equipped with special shielded transformer a separate unit model 3ZM-CM is ideal for use as microphone in simple inter-communicating systems. List only \$4.50.

Write Dept. RT3  
for complete descriptive literature



MODEL  
1620

OUT OF CIRCUIT  
HEATER  
HEATER & CATHODE  
PLATE



## New TRIPLET LEVER SWITCHING

Model 1620 Tube Tester lever switching permits individual control for each tube element. Switch setting shown above permits tests of 45 commonly used different type tubes without change of positions of the levers. Additional "quick change" anti-obsolete features include RED DOT Lifetime Guaranteed Instrument, Speed Roll Chart, and New Socket Panel, all of which can be replaced should unanticipated changes make it necessary. Dealer Net Price . . . \$37.84. For more information, write Section 198, Harmon Drive, Bluffton, Ohio.

THE TRIPLET ELECTRICAL INSTRUMENT CO.  
Bluffton, Ohio

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

## Ken-Rad's Recommended Tubes Get Wide Acceptance

A new indication of long-needed cooperation between manufacturers of radio sets, and tube manufacturers, is seen in a report from Ken-Rad Tube & Lamp Corp., Ownesboro, Ky., whose efforts in reducing the number of tube types are now getting results.

Ken-Rad previously published a booklet listing 26 types of tubes recommended for new receiver design. This was intended to simplify manufacturing processes, servicing problems, and eventually reduce the types stocked by jobbers and dealers.

That this program was accepted by manufacturers using Ken-Rad tubes is revealed in the shipments made by the company. In December, 1939, before the program started, only 53 per cent of shipments were of the 26 recommended types. March saw the per cent go to 71, and by June, 90 per cent of the orders were for the recommended types.

## Campbell Named by Worner

L. L. Worner, president of Worner Products Corp., 1019 W. Lake St., Chicago, manufacturers of photo-electric equipment, has announced a new general sales manager, Robert H. Campbell.

Mr. Campbell is widely acquainted in both the radio and electrical fields, having been active there for the past 15 years.

## Crosley Picks Weissinger

Another advertising expert, F. H. Weissinger, has been added to the ad staff of Crosley Corp., according to news from Crosley advertising manager, L. Martin Krautter. Mr. Weissinger will be in charge of dealer cooperative advertising.

## Gets New Tube Post



Walter R. Jones of Hygrade Sylvania Corp. has been named director of commercial engineering of the firm's radio tube division. He will now head up Sylvania's coast-to-coast radio service schools, conducted by him and George C. Connor of New York.

## JIM QUAM Says



And now I'm being endorsed, just like a regular election candidate. I received a copy of the Wilkinson Radio News the other day, published by our good friends the Wilkinson Brothers of Dallas. And just imagine, they have reproduced this column with my remarks on the economics of speaker repair just as it appeared a couple of months ago. This is what they say about it:

"Take Jim's word for it! Replace instead of repair small speakers! You will find it more economical for both you and your customers!"

Now that's endorsement by people who ought to know—and I'm glad to see they agree with me on this subject. We hope all servicemen will take their advice to heart. They'll make more money and have more satisfied customers.

\*  
Honorary Member of R.S.A.

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



## PINCOR



A SIZE FOR ANY JOB

## DYNAMOTORS

Pincor Dynamotors are as much "at home" on tough jobs as on ordinary ones. No wonder they are specified by governmental and commercial users universally for air craft, marine and broadcast service, police units, sound systems, auto radios, etc. Available in a wide variety of types and frames for any requirement. Highest efficiency and regulation. Capacities: 5 to 850 watts. Input, 6 to 110 volts; output, up to 1750 volts. Specify "Pincor"—and be sure of thousands of hours of dependable, quiet service. Mail coupon for complete information.

**Pioneer Gen-E-Motor Corporation**  
CHICAGO, ILL.

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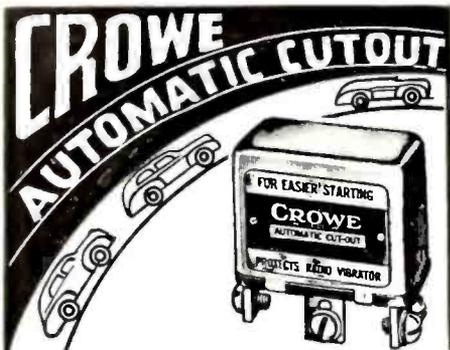
PIONEER GEN-E-MOTOR CORPORATION  
Dept. R-2H, 466 W. Superior St.  
Chicago, Ill.

Please send information on Pincor Dynamotors, Motor Generators and special power supply units.

Name .....

Address .....

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



HERE'S a new source of profit for dealer and service man. It's the CROWE Automatic CUTOUT. Every car, whether radio-equipped or not, needs one. It concentrates power for quicker starting, and eliminates vibrator trouble.

#### SAVES RADIO VIBRATOR

No longer need car owners worry about radio vibrator trouble due to starting the engine while radio is playing. This complaint is eliminated with the Crowe Automatic Cutout. It shuts off radio the instant motorist steps on starter. This prevents sticking or burning out of vibrator because of voltage drop.

#### INSURES QUICKER STARTING

There is still another use for the Crowe Automatic Cutout. It insures quicker starting. It not only shuts off radio, but also headlights, heater, foglights and other accessories, concentrating power for the starting operation. This is particularly important for cars equipped with "Sealed Beam" lights. It restores circuit after engine is started.

Ask your Radio Parts Jobber about extra discount on special dealer package and free advertising material.

Ask for Folder S-2.

**CROWE NAME PLATE & MFG. CO.**  
1771 GRACE STREET CHICAGO

**Now!**  
You can Guarantee\* your 1940 Election Sound Sales with University Speakers



University Reflex Speakers will increase your 1940 election sales profits.

Demonstrate how University Reflex Speakers outperform all others in efficiency and quality.

Explain the advantages of the Non-Resonant Rubber Rim.

Prove the ability of University Speakers to Project high intensity sound without distortion or overload.

Clinch the contract with the aid of University's One-year Guarantee.

\*All University Driver Units are fully guaranteed for a period of one-year.

**UNIVERSITY LABORATORIES**  
195 Christie St. New York City



Meissner sales reps have a big meeting to hear about the firm's new products. Left to right, front row, G. V. Rocky, W. L. McWood, W. J. Purdy, H. A. Lasure, M. E. Foster, B. J. Fitsner, J. E. Smith, J. T. Watson. Middle row: J. P. Kay, R. W. Clawson, J. E. McKinley, C. G. Pointon, Jim Millar, M. A. Dobbin, W. M. Atkins and R. W. Mitscher. Back row: J. F. Rinke, L. J. Eisenmann, J. D. Rachels, C. W. Pointon, E. P. Scott, W. C. Carduner, J. D. Olsen, E. M. Braun and F. P. Morf.

### Musical Convention Draws Thousands

Some 3,700 music and radio men were guests at the annual convention of the National Association of Music Merchants, for the big 3-day event which set records at the Stevens Hotel, Chicago. There were 145 exhibitors, including many radio manufacturers with a handsome variety of radio-musical instruments.

An exceptional amount of business was done at the convention, in preparation for Fall buying. Speakers and entertainment were generously provided, and reached a lively climax when some 1,200 went to the main banquet event.

The National Musical Instruments Dealers Association voted during the session to merge with NAMM.

Officers elected for NAMM include Paul S. Felder, New Orleans, president; Melville Clark, Syracuse, N. Y., first vice-president; Harry D. Griffith, Newark, N. J., 2nd v.p.; D. F. McCormack, San Francisco, 3rd v.p.; Chester D. Anderson, Dayton, Ohio, 4th v.p.; S. Ernest Philpitt, Miami, secretary; and Clarence S. Hammond, Brooklyn, N. Y., treasurer. The executive secretary is W. A. Menuie, 45 W. 45th St., New York City.

### Capehart Shows Panamuse and Deluxe Lines

Two new lines, a group of 12 Capehart-Panamuse automatic phonograph-radio models and a string of 9 Deluxe Capehart period-style combinations, were introduced last month at the convention of the National Association of Music Merchants in Chicago, by the Capehart Division of Farnsworth Television & Radio Corp., Ft. Wayne, Ind.

Following the show in Chicago, the firm held a special showing at the Waldorf-Astoria in New York City, Aug. 7-9, and I. C. Hunter, sales manager, has also scheduled similar events in Los Angeles and San Francisco for August.

The lines emphasize efficient record changers, tone quality, authentic pe-

riod design cabinets, chassis of dual unit construction, large tube complements, 12" precision one speaker, and many other features. Featured also are FM reception and remote control.

### Rock-Ola Enters Recorder Field with Complete Line

Early next month, the Rock-Ola Mfg. Corp., 800 N. Kedzie Ave., Chicago, Ill., will be ready with a new and complete line of home recorders. The line will be all radio-recorders, except for a portable radio-phonograph with an automatic record changer; six models of recorders include four consoles, a portable and a table model, with list prices ranging from \$59.95 to \$149.95.

Rock-Ola officials say that "we believe that the familiar Rock-Ola slogan, 'the greatest phonograph produced in the greatest factory in the industry' sums up our qualifications to give retailers the kind of merchandise in the recorder field they can sell with confidence and in good volume." The firm is well known for an extensive background in the manufacture of commercial phonographs.

Consoles will be offered in traditional and modern designs, two of them with automatic record changers. The Rock-Ola merchandising program includes complete point-of-sale helps and mass advertising, presented as "particularly useful to dealers because it is all planned around a single type of instrument."

### Radiart Shift

The plant and offices of The Radiart Corp., Cleveland, is now located at W. 62nd St. and Barberton Ave. The former Radiart address was 13229 Shaw Ave.

### Bakelite Moves

The new quarters of the Bakelite Corp. and Halowax Corp. are in the Carbide and Carbon Building, 30 E. 42nd St., New York City. They were formerly located at 270 Park Ave.

**"BUY NOW!  
AND Save \$15"**

**MAGIC WORDS that are selling  
FEDERAL RECORDING RADIOS**



Radio Dealers Can Now Offer Their Prospects a Saving of \$15 on a Console Model Federal, a Great Big Added Advantage in Selling This Superlative Home Recorder.

**ONLY FEDERAL DEALERS CAN  
MAKE THIS OFFER!**

Here's your opportunity to turn these waiting prospects into cash customers *quickly*. Offer them a saving up to \$15 on the purchase of a Federal Recording Radio,—if they buy Now. See for yourself what a powerful inducement you have in the exclusive Federal Deal. It is working magic everywhere. It will work magic for you.

**BRINGS PROSPECTS  
TO YOUR STORE**

**SELLS FEDERAL  
RECORDING RADIOS**

**BRINGS CUSTOMERS  
BACK 1 TO 30 TIMES**

**GIVES YOU CON-  
TINUOUS DISK AND  
NEEDLE BUSINESS**

**WRITE OR WIRE FOR DETAILS**

Check this for tops in Dollar Value. Model 301 Federal Console,—Microphone Recording, Off-the-Air Recording, Electric Phonograph with automatic record changer, Recording Circuit Radio, Home Broadcaster, all in one beautiful cabinet for only \$129.95

**FEDERAL RECORDER CO., INC.**

50 West 57th Street

Dept. 8111

New York, N. Y.

**FEDERAL RECORDING RADIOS ARE THE WORLD'S GREATEST RECORDER VALUES  
MOST DEPENDABLE PERFORMANCE. WIDEST RANGE OF MODELS**

**Federal Perma Disks**  
Non-inflammable, shavings will not burn; heavy metal base, non warp, non slip; hundreds of high fidelity playbacks; perfect recordings without surface noise. Priced 23, 30, 40, and 50 cents. Sell Federal Perma Disks if you want that sweet and lasting repeat business.

Portables, Table Models, Consoles with or without record changers, professional models too, all priced to yield the highest dollar value. Beautiful cabinets, finely designed and finished, distinguish the entire Federal line. Federal Performance in faithful recording, in fine radio reception and phonograph reproduction stands unexcelled, acknowledged the world's best.

**Help! Help! for Dealers**

Folders to hand out or mail to prospects—colorful attention-getting window cards to bring passersby into your store—free newspaper ad mats... Use them all to boost your sales of Federal Recording Radios and Perma Disks!



No. 116 Portable Model \$72.50



No. 111 Table Model \$69.95



No. 306 Console, Record Changer \$159.95



MODEL 83K1

**Motorola**  
**GIVES YOU 1941**  
**BIGGEST**  
**BUY *in***  
**RADIO**

**WOW!**  
**WHAT A RADIO**  
**VALUE**



And the Entertainment  
 Miracle of the Year...

**Motorola**

**WIRELESS AUTOMATIC  
 RECORD CHANGER**

Makes an Automatic Phonograph-Radio Combination of  
 any Radio Regardless of Age, Make or Model

MODEL 23RC

Changes eight 10-inch or  
 seven 12-inch records Auto-  
 matically. Requires no connec-  
 tions, hook-ups or wiring to  
 radio... just plug into any  
 light socket.

**\$29<sup>95</sup>**



**MODEL 83K1**  
**3-GANG CONDENSER**  
**TUNED R. F. STAGE**

- 8 Tubes including Rectifier
- 3 Wave Bands—Powerful 10" Speaker
- 6 Electric Motor-Drive "Feather-Touch" Push Buttons
- Rich Radiant Concert Quality Reception
- Easily Brings in Far Distant Stations

**\$69<sup>95</sup>\***

**Nationally Advertised**  
**SATURDAY EVENING POST**  
**LIFE—2-COLOR FULL PAGE**  
**CIRCULATION OVER 6,100,000**

\*Prices Slightly More In South and West

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