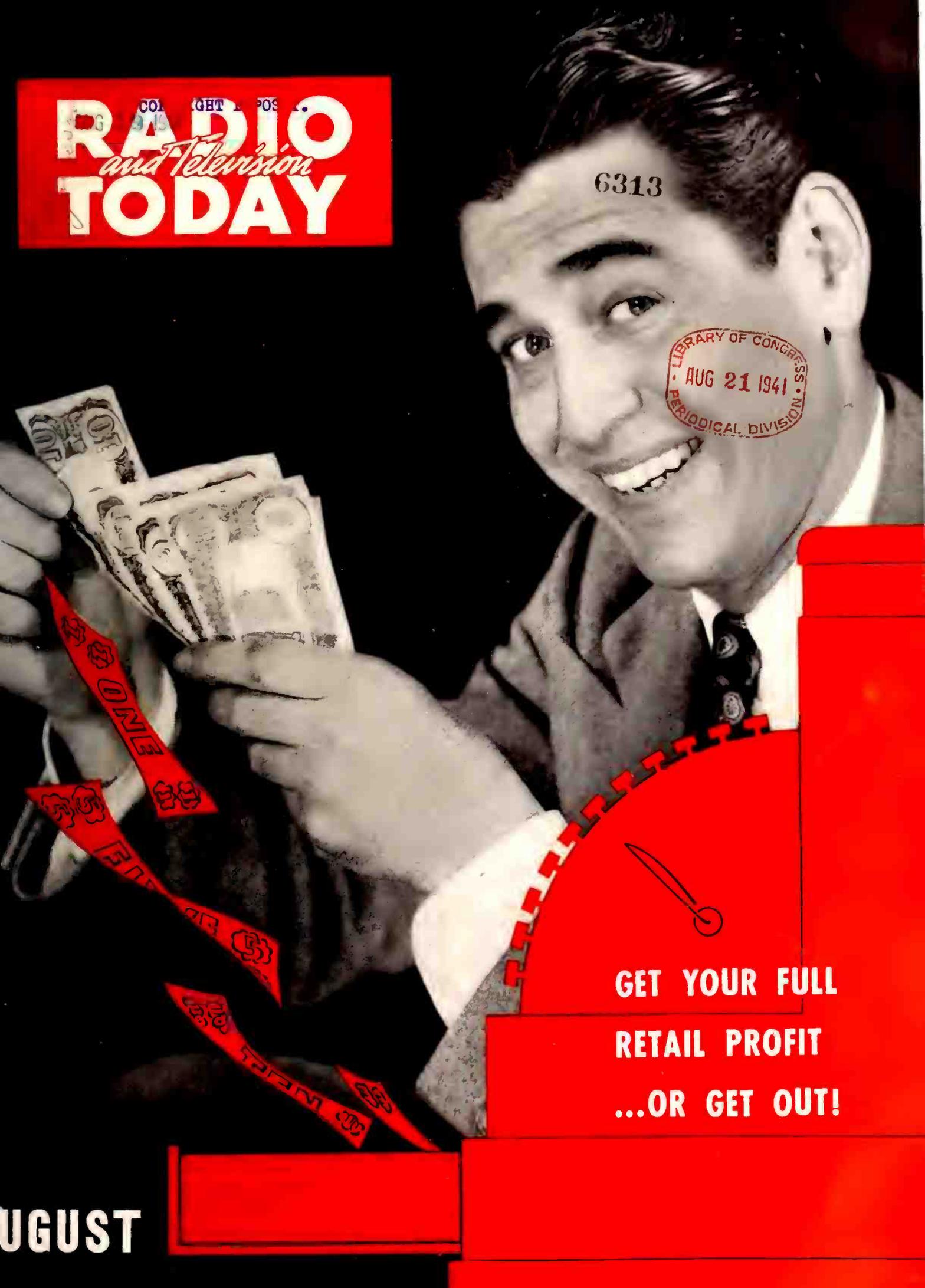


COPIRIGHT & POS.

# RADIO *and Television* TODAY

6313

LIBRARY OF CONGRESS  
AUG 21 1941  
PERIODICAL DIVISION



GET YOUR FULL  
RETAIL PROFIT  
...OR GET OUT!

AUGUST

# Motorola with 3-DIMENSION VITA-TONE is the Big News in 1942 Home Radio



*The Secret of Motorola Performance*  
is in the **HEART OF THE SET**

Your customers may or may not understand about 3 gang condensers, Tuning R. F. Amplifier, or "Acro-Vane" Loops *but they do know* good reception when they hear it! Motorola Home Radios for 1942 are engineered with all the skill and ability of some of the world's finest radio men... packed full of "extras" that make for that better "Motorola Performance"... and topped by the greatest radio reception discovery in years, 3-Dimension VITA-TONE.

The minute your customers hear VITA-TONE they'll appreciate the difference! High notes, low notes, every spoken word, every whisper... *every sound*—comes floating to your ears with Depth, Brilliance and Perspective never before possible. Every radio program sounds better, *is better*—because it's sharper, clearer, truer. This year you don't have to sell radios... just feature Motorola... it sells itself!

Write or telephone your Motorola Distributor or write

COLLECT GET POST  
and Television  
**TODAY**



**NATIONALLY ADVERTISED**

**LIFE** 3 Million Circulation  
20 Million Readers

**Colliers** 3 Million Circulation  
10 Million Readers

**Saturday Evening Post** 3 Million Circulation  
10 Million Readers

And the strongest program of dealer cooperation—including magazine, newspaper, and national outdoor advertising in Motorola history.

**GET YOUR FULL  
RETAIL PROFIT  
...OR GET OUT!**

**AUGUST**

# Just Out! **MYE**

**THE NEW 4<sup>TH</sup> EDITION**



**BIGGER and BETTER THAN EVER!**

**MORE THAN 400 PAGES!**

**NEW FROM COVER TO COVER!**

**ABSOLUTELY UP-TO-DATE!**

**ALL I. F. PEAK FREQUENCIES!**

**CIRCUIT REFERENCES APLENTY!**

**COMPLETE TUBE COMPLEMENTS!**

**ORIGINAL PART NUMBERS ON ALL CONDENSERS, VOLUME CONTROLS, AND VIBRATORS!**

**COVERS ALL OF RIDER'S REFERENCE, INCLUDING VOLUME 12!**

**Have You Ordered Your Copy?**

**New-Model Listings Increased by more than 35%**

**The Answer to Every Service Problem**

**A Real Time-Saver**

**See Your Distributor NOW!**

Order your copy of this new, 4th edition *MYE* today! The supply is limited. And once the present printing is exhausted, *there won't be any more!*

So don't delay. Get your Mallory distributor on the phone—NOW—Order your copy today.

*Save your old Aluminum parts. It is patriotic to give them to National Defense.*



**The Biggest News You've Ever Had On Volume Controls!**

New mechanical and electrical precision. Rugged! Easily installed. An A-C switch that snaps on and stays on. Quiet operation. Start using them *today!*



**This Is Mallory's Year On Replacement Condensers!**

More have gone into service in 1941 than in any other year! Use Mallory Replacement Condensers for fast, efficient work and your customers' satisfaction!

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

**More than ever —INSIST ON**

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

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

# Emerson ... THE VALUE LEADER FOR 1942

Emerson for 1942 means greater turnover . . . increased volume and greater dealer profits. Emerson for 1942 introduces sensational new selling features . . . revolutionary new developments . . . the fastest easiest selling line in radio, today. 49 Models to choose from. Get the facts now—Emerson for 1942 will make this your biggest year in radio history.



**EMERSON  
LEADS  
AGAIN**

**SENSATIONAL NEW  
MODELS!  
GREATER DEALER  
SALES!  
BIGGER DEALER  
PROFITS!**

**NEW 1942**



**Model 413** — Gets Europe Direct 6-Tube AC-DC Superheterodyne . . . Foreign and American Broadcasts, Police . . . Full-Vision Slide-Rule Dial . . . 6" Oval Dynamic Speaker . . . Tone Control.



**Model 421** AC-DC Superheterodyne . . . Standard Broadcasts and Police . . . Magnivision Slide-Rule Dial . . . 6" Oval Dynamic Speaker . . . Tone Control.



**"3-Way" Portable — Model 426**  
NEW STYLE PORTABLE  
SMALLER—LIGHTER—SMARTER  
Plays on Own Power, Plays on AC,  
Plays on DC.



**Portable Phono-radio, Model 450**  
Superheterodyne for Standard Broadcasts and Police . . . plays all size records including 12" with lid closed . . . Durable, smartly designed portable.



**Automatic Phono-radio, Model 447**  
FOR CONTINUOUS PLAYING OF 10" or 12" RECORDS  
7-Tube AC Superheterodyne (Incl. Extra Rectifier) . . . Standard Broadcasts and Police . . . Crystal Pick-Up . . . Feather-Weight Tone Arm . . . Handsome table model of selected walnut veneers in "waterfall" design.



**Portable Electric Phono Model 434**  
COMPLETE PHONOGRAPH WITH 3 TUBE POWER UNIT  
Crystal Pick-Up . . . Feather-Weight Tone Arm . . . 4 Watts Beam Power Output . . . Plays all size records including 12" with lid closed . . . Sturdy, compact portable of simulated saddle-calf leather.

# Emerson

with "MIRACLE TONE"

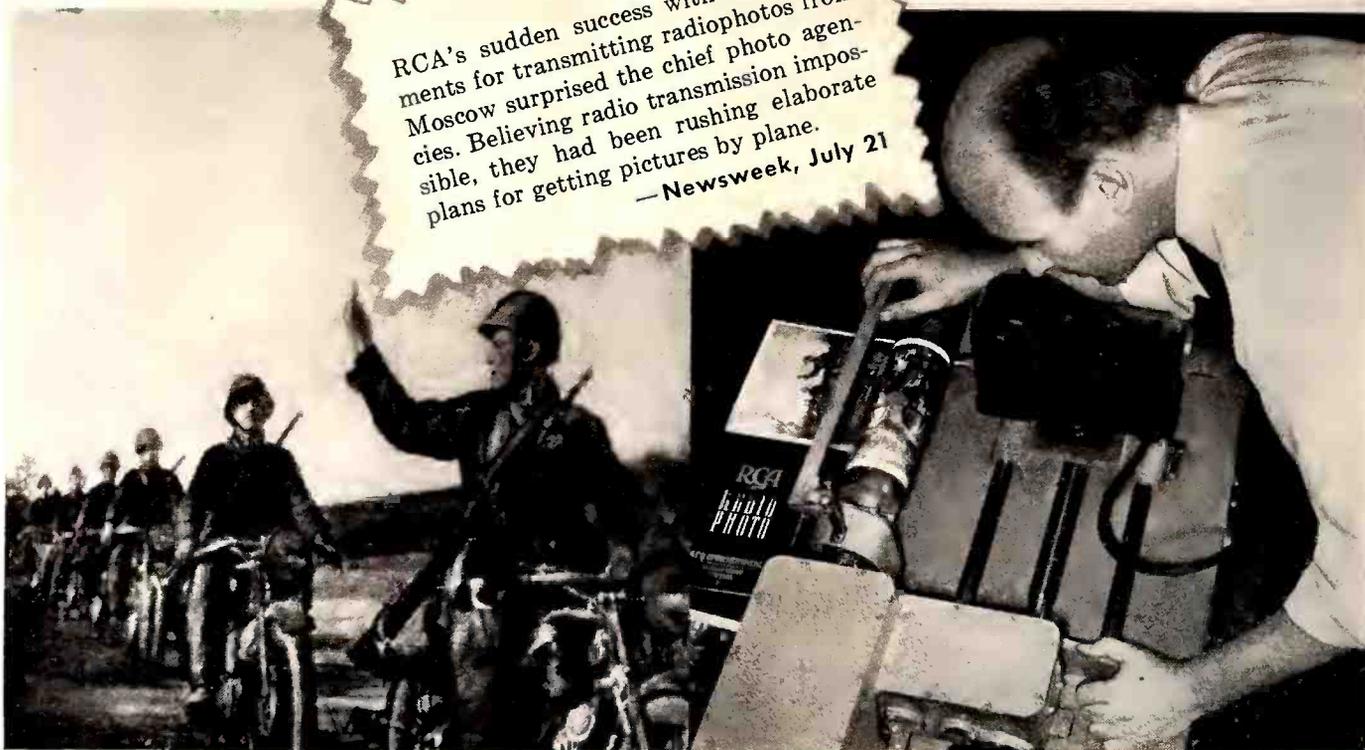


EMERSON RADIO & PHONOGRAPH CORPORATION • 111 Eighth Avenue, New York, N. Y.

RADIO & TELEVISION TODAY, August, 1941, Vol. VII, No. 8, published monthly by Caldwell-Clements, Inc., 480 Lexington Ave., New York, N. Y. M. Clements, President; O. H. Caldwell, Treasurer. Subscription price U. S. and Latin American countries, \$1 for 2 years; Canada, \$1.25 for 2 years. All others, \$2 for 2 years. Single copy, 15c. Reentered as second class matter April 29, 1939, at the post office at New York, N. Y., under act of March 3, 1879. Originally entered as second class July 24, 1936. Printed in U.S.A. Member of A. B. C. Copyright 1941 by Caldwell-Clements, Inc.

RCA's sudden success with its experiments for transmitting radiophotos from Moscow surprised the chief photo agencies. Believing radio transmission impossible, they had been rushing elaborate plans for getting pictures by plane.

—Newsweek, July 21



# RADIOPHOTOS HURLED ACROSS THE WORLD!

**B**UT it would have taken a plane traveling 21,300 miles an hour to match radio's speed of delivery! It takes only 13 minutes for a complete picture to flash across the 4,615-mile curve that has made an invisible picture chute of the Great Circle Route between Russia and New York. It bends over the spinning world across Finland, Sweden, Norway, Iceland, Labrador and on to the United States.

As a result, American newspaper readers have been looking at war photographs soon after they were snapped on the eastern battle fronts. The newspaper credit lines have read, "RCA test transmission radiophoto." The pictures dated July 8 were the first America ever saw from Moscow by radio.

During the first World War there were weeks of delay before Americans saw pictures from the Russian sector. The radiophoto was but a dream of scientists. But they became master of the dream and in 1941, when Russia was ready to put pictures in the air, American apparatus developed by RCA Laboratories was ready on this side of the sea to receive them.

The Russian pictures enter the United States at the antennas of R.C.A. Communications, Inc., at "Radio Central," River-

head, Long Island. Automatically the impulses are relayed to the radiophoto machines at R.C.A. Communications' headquarters, 66 Broad Street, New York. That is the terminal of the 4,615-mile chute through space.

How is it done? In Russia the picture is wrapped on a cylinder, which as it revolves enables a pinpoint of light to release the lights and shadows of the picture to actuate a short-wave radio transmitter. The radio impulses, therefore, correspond to the shadings of the picture. In New York a similar cylinder is turning, and around it is wrapped a sensitized paper or "negative." It revolves in step with the Russian cylinder and as it does another needle of light, controlled by the incoming picture-carrying impulses, acts as a pen. It reconstructs or "paints" the picture line by line.

New York is the world-center of radiophoto reception, with the picture circuits now extending to London, Berlin, Tokyo, Buenos Aires and Moscow. It is RCA Laboratories apparatus at the headquarters of R.C.A. Communications, Inc., on the tip of Manhattan Island, that puts the pictures back on paper after they are etched electrically in space between the hemispheres.



## RCA LABORATORIES

A Service of the Radio Corporation of America

The Services of RCA: • RCA Manufacturing Co., Inc. • Radiomarine Corporation of America • National Broadcasting Co., Inc. • R.C.A. Communications, Inc. • RCA Institutes, Inc.

**Even in  
Short Wave Diathermy  
they use**

**RAYTHEON tubes**

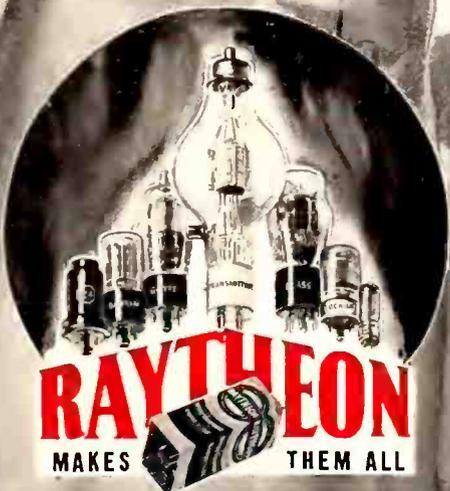


*Short wave Diathermy equipment, to be effective, requires uniform and peak performance from tubes. Anything less is not good enough for the medical profession.*

For that reason leading makers of electro medical equipment, such as H. G. Fischer & Co., depend on RAYTHEONS for vital tube functions. It is another example of the respect with which electronic engineers hold RAYTHEON tubes.

These same RAYTHEON radio tubes will perform in the most critical circuits . . . yet they cost not one penny more . . . so it is little wonder that the serious Servicemen use RAYTHEONS for *all* replacements.

*Make your next order RAYTHEON!*



**RAYTHEON**  
MAKES THEM ALL

NEWTON MASS

NEW YORK

CHICAGO

SAN FRANCISCO

ATLANTA

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

# ALL IN STEP



You bet. We're in step with progress—with better listening and therefore quicker and more sales. Take us on, you wide-awake dealers. We'll repay you many times. And, we'll make lasting customers for you. Hundreds write us like this:

*"The reception of my radio is much improved. There is less background noise and the foreign stations come in with greater clarity. I am very much pleased with the performance of these tubes."*

**KEN-RAD TUBE & LAMP CORPORATION, Inc., Owensboro, Ky.**  
*Makers of Ken-Rad Radio Tubes and Ken-Rad Electric Lamp Bulbs*

FOR BETTER TUBE BUSINESS RECOMMEND

# KEN-RAD

## DEPENDABLE

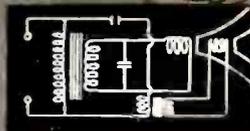
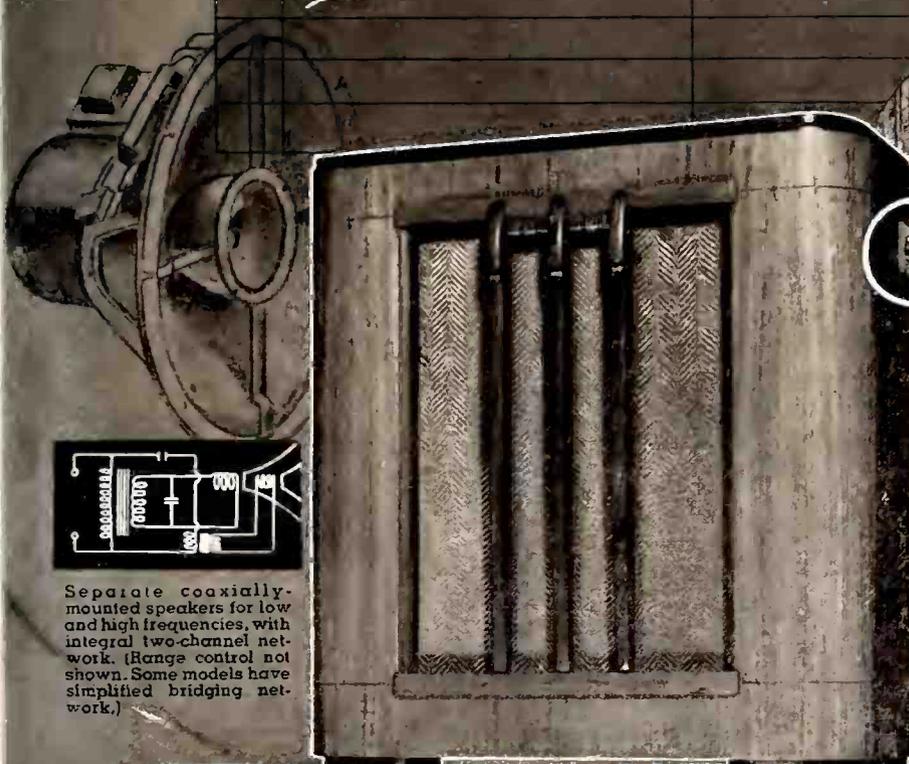
### *Radio Tubes*



# Now You can Hear them ALL at their BEST!

...with *New Jensen Coaxial Speaker*

▲ "FM" Television Sound  
 ▲ Transcriptions, Quality "AM"  
 ▲ "AM" Radio  
 ▲ Phono Records, "SW" Broadcast



Separate coaxially-mounted speakers for low and high frequencies, with integral two-channel network. (Range control not shown. Some models have simplified bridging network.)



Jensen High Frequency Control gives you the kind of reproduction you want when you want it... all the way from two-way system high-fidelity, to conventional single speaker performance. Now you can adjust for best results on every program, every record, every type of service.

### Jensen Bass Reflex

Acoustically - correct Bass Reflex Cabinet gives smoothly extended low register. Better than an "infinite" baffle...efficiently uses backradiation too.



### A New Series of Fine Reproducers

**Designed to Meet Your Needs Now...and for Years to Come!**

- ★ Two Speakers, Co-axially mounted.
- ★ Built-in Frequency-Dividing Network.
- ★ Jensen High Frequency Range Control for all-purpose flexibility.
- ★ Jensen "Bass Reflex" enclosure for full low register.
- ★ Beautifully styled walnut cabinets.

Never in the history of sound reproduction have you been able to buy so much performance...such complete versatility...at so low a cost! For now Jensen brings you the ultimate in general purpose reproducers, with top performance so fine, so nearly ideal acoustically that obsolescence is eliminated for years to come...yet you can instantly adjust response for most pleasing results with every type of input in use today. Ideal for professional and home use for FM-AM reception and monitoring, transcriptions, commercial phono records... for practically every moderate-level high-quality application. Write now for Data Sheet 120 for technical descriptions and prices.

Four complete reproducer types with 12" to 15" speaker sizes, priced at \$75.25 to \$118.75 list in striped walnut cabinets. Utility cabinet models down to \$64.25 list. Coaxial speakers only as low as \$29.50 list

# Jensen

6601 SOUTH LARAMIE AVENUE, CHICAGO, ILLINOIS  
CABLE ADDRESS: JERAD, CHICAGO



# The Biggest NEW 1942

**An amazing new way  
to play records that  
will win you  
NEW SALES!**

Here's an RCA Victrola line that speaks for itself! As one dealer put it a few days ago, "You don't have to talk up these new instruments. With the Magic Brain, the Magic Tone Cell, the Flexible Tone Bridge, the Jewel-Lite Scanner and all the other swell features you've given them, even a blind man could see they'll sell like hot cakes!"

There are seven models in the sensational new 1942 Victrola line. Built right, priced right and backed by a bang-up national advertising campaign, they'll make you sales aplenty! Get behind 'em now!

A Service of the Radio Corporation of America. In Canada, RCA Victor Co., Ltd., Montreal. Trademarks "Magic Brain," "RCA Victor," "Victrola" Reg. U. S. Pat. Off. by RCA Mfg. Co., Inc.



**LOOK AT ALL THE RECORD PLAYING EASE, ENJOYMENT AND ECONOMY THE MAGIC BRAIN ENABLES YOU TO OFFER!**

**You Push a Button... MAGIC BRAIN does it all...  
You just sit back and listen**

**NO LID TO LIFT—  
RECORDS LOAD AT  
COMFORT LEVEL**

Convenience keynotes this exciting new development. No ornaments to move—no lid to lift! The Roll-Out Record Changer glides out automatically to receive your records at comfort level.

**SENSATIONAL TONE  
PURITY... NO MORE  
SURFACE NOISES**

The Jewel-Lite Scanner of the Magic Tone Cell recreates each record with a richness, brilliance and fidelity of tone never before dreamed possible. Lightweight, Flexible Tone Bridge ends objectionable surface noises!

**NO MORE NEEDLES  
TO WORRY ABOUT**

The Jewel-Lite Scanner of the Magic Tone Cell, with its tiny sapphire point designed to give faithful reproduction for a countless number of playings, entirely eliminates the bother and annoyance of old-fashioned needles.

**RECORDS LAST  
INDEFINITELY**

Due to scientific design and balance, the pressure of the sensational new Magic Tone Cell on the record has been reduced to an astounding minimum, thereby assuring extraordinarily long life to your records.

# Sales News in Years!

# RCA VICTROLA

# with MAGIC BRAIN!



Set illustrated is Model V-215, available in either walnut or mahogany. It has Magic Brain which automatically starts, stops, changes 12 ten-inch or 10 twelve-inch records at the push of a button. Also Magic Tone Cell, Jewel-Lite Scanner, Flexible Tone Bridge, 12" Electrodynamic Speaker, 9 RCA Victor Preferred Type Tubes.

## FEWER, but FINER!

RCA Victor is cooperating to the full with National Defense Priority Requirements. Because of them, shortages exist in certain raw materials needed for radios and phonograph-radios, and there will be a universal decrease in the number of instruments to be made. Hence RCA Victor products for the home will be fewer. But they will be *finer* than ever. For as a result of defense work, of which we, too, are doing our share, RCA Victor quality standards . . . always the highest . . . are now more exacting than ever.

**JUST PUSH A BUTTON—  
THERE'S YOUR  
RECORD PROGRAM**

**AMERICAN AND  
FOREIGN RECEPTION**

At the push of a button, the Magic Brain plays—stops—changes records for you and then shuts the motor off when the program is over. Record enjoyment is uninterrupted, complete.

Included is newest RCA Victor Radio—a 9-tube Electric Tuning set with sensational new Teletube and new Audio System for finer amplification than ever before! Standard, Shortwave and Foreign Reception.





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to play records that  
will win you  
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# HOW TO SELL AN **FM** RADIO



**“Before you buy your new set you’ll want to hear FM.”**

Tell your customer what you yourself know—that the trend is rocketing to FM—that long before his new radio is discarded Frequency Modulation will be *the* broadcasting.

**“Have you ever been troubled by static?”**

Remind your customer of AM radio’s big disadvantages—static, interference. **DO THIS BEFORE YOU TURN ON THE FM SET!**

**“I want you to hear them side by side!”**

Play an AM set to dramatize your story. Hook in an electric razor or vacuum cleaner in the same circuit to demonstrate interference. Then turn AM set off. *Now switch on your Stromberg-Carlson FM radio\**, pre-tuned by button to an FM station giving “good signal.”

**“Note this easy push button tuning for FM as well as standard!”**

Inform him this is the radio he’s seen advertised in *Life*, *Time*, and *The New Yorker*. Explain how every feature — limiter circuit, push button tuning, tuning eye, automatic drift compensator — is built to give maximum reception of both FM and AM. Stress that this set employs FM as invented by Major Edwin H. Armstrong!

**“Only a Stromberg-Carlson gives all of FM’s benefits!”**

Your customer will want to know that his FM Stromberg-Carlson has the widest range of natural tone in radio — will bring him music lost by *ordinary* FM sets. Mention that for two years Stromberg-Carlson FM-AM sets have been used in more homes than all other FM makes combined! *“There is nothing finer than a Stromberg-Carlson!”*

## STROMBERG-CARLSON

ROCHESTER, NEW YORK

**A FINER RADIO FOR STANDARD PROGRAMS  
THE ONLY RADIO FOR FM AT ITS BEST...**

\*Licensed under Armstrong FM Patents

# RADIO *and Television* TODAY

## "GET YOUR PROFIT—OR GET OUT OF THE RADIO BUSINESS!"

Above is the curt advice of many a hard-thinking radio business man, faced with present conditions in radio.

"Get your **full retail price**—get your **profit** on what you sell. Or get out of the radio business, and stop making it impossible for those who observe sound business practices to stay in business."

\* \* \*

Radio merchandise is now in demand as never before.

Supplies of merchandise are limited.

So it follows that—

This is a time to **clean up** past practices of price-cutting.

This is a time to **go slow** on trade-in offers.

This is a time to **get the full retail price**.

\* \* \*

The radio man who doesn't heed this advice isn't going to be in the radio business much longer anyhow.

Business costs are going up. Living expenses are rising. Wages will advance. Taxes will be staggering. Cash will be needed. Bank balances must be built up. Every cent of the full retail price will be necessary to meet the new business conditions. So—

"Get your full retail profit." Or—soon you will be out of the radio business!

Get your full retail price!

EDITOR, Orestes H. Caldwell;  
PUBLISHER, M. Clements;  
Managing Editor, Darrell Bar-  
tee; Merchandising Editor, H.  
L. M. Capron; STAFF, E. T.  
Bennett, N. McAllister, G. H.  
Mayorga, William E. Moulie,  
M. H. Newton, R. A. Neubauer,  
B. V. Spinetta, R. Y. Fitz-  
patrick, 201 N. Wells St.,  
Chicago, Ill.; CALDWELL-  
CLEMENTS, INC., 480 Lex-  
ington Ave., NEW YORK,  
N.Y. Telephone PLaza 3-1340.  
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it Bureau Circulations, Vol. 7,  
No. 8. August, 1941

# RADIO'S TRENDS

## Retailers' Role in Defense

"Retailers for Defense" is the theme of this year's National Retail Demonstration Week, Sept. 15 to 20, sponsored by the National Retail Dry Goods Association, 101 W. 31st St., New York City. The retailer's role in the present crisis will be emphasized via broadcasts, sound movies, posters, etc., according to the Week chairman, Major Benjamin H. Namm. The program is planned to strengthen public confidence in the retailing industry.

It is suggested that dealers use the "Retailers for Defense" theme in window displays, open house events, advertisements, local broadcasts, etc., working with local chairman. A feature of the Week will be the selection of a national "Mrs. Typical Consumer," from those nominated locally in communities participating in the event.



Melville Clark of Clark Music Co., Syracuse, N. Y., is the new president of National Ass'n. of Music Merchants, elected at recent NY convention. Mr. Clark is a nationally known harpist, inventor, lecturer and author.

## Radio Excise Tax Increased to 10%?

The radio excise tax was increased from 5½ to 10 per cent and also the basic law changed to cause an extra tax burden in the new 3½ billion dollar general revenue law reported out by the House Ways and Means Committee on July 25. A similar increase from 5½ to 10 per cent on refrigerators and parts was ordered, together with much stiffer levies on corporations and individual incomes.

The radio tax, originally scheduled

to expire June 30, 1945, is made permanent in the new bill and is estimated to raise \$9,400,000 this year. Under the previous law the tax had applied only to certain radio components and accessories, but will now be "expanded to include completed radio sets, phonographs, phonograph records, automobile radios and musical instruments." Heretofore automobile sets were taxable only at the automotive accessory rate of 2½ per cent, so the proposed new law will substantially increase the tax burden on auto radio. Also, the 10 per cent tax will apply to the principal set components when sold separately, but apparently will exempt parts, components and accessories (when sold separately) not specifically named in the new legislation. This also restores the tax on phonograph records, at a rate of 10 per cent.

## ASCAP Music Back to NBC Nets

The return of ASCAP music to the NBC networks was seen in the announcement on Aug. 2 by the NBC president, Niles Trammell, that the American Society of Composers, Authors and Publishers had approved an NBC proposal ending the music dispute. Final agreement awaits the reaction of affiliated stations, but indications are that the works of such composers as Victor Herbert, Jerome Kern, Irving Berlin. Cole Porter will shortly be heard again on the Red and Blue webs.

Proposed new contracts run to the end of 1949. ASCAP controlled music went off all network stations on Jan. 1 of this year, but returned to MBS stations later when Mutual Broadcasting System concluded an agreement with the Society.

## Radio Magic, Fridays, 7:15 and 6:15 p.m.

Radio Magic programs over the NBC Blue network, with WJZ as key station, are now nearing the hundred mark, and continue every Friday at 7:15 p.m. EDST (6:15 p.m. CDST). Editor Caldwell of RADIO TODAY conducts these weekly broadcasts to inform radio listeners concerning latest discoveries in radio and in uses of radio tubes, and how listeners can get the best reception from their own receivers. Topics ahead are:—

- Aug. 22—Silent Sound.
- Aug. 29—Shortwave Listening.
- Sept. 5—Tubes Aid Telegraphy.
- Sept. 12—Magic of Recording.
- Sept. 19—Electronics in Defense.
- Sept. 26—Music by Wire.



Significantly, a Stromberg-Carlson official, Lloyd L. Spencer, points out FM features for a prominent dealer, E. K. Andrews, J. L. Hudson & Co., Detroit. At the Music Show in New York City.

## OPM Allocates Nickel for PM Speakers

The OPM Priorities Division is making special allocations of nickel, extending through December, for permanent-magnet speakers to match the previous OPM aluminum allocations for magnets.

Special nickel allocations for alnico magnet material were announced Aug. 6, by Nickel Administrator David A. Uebelacker and, like the aluminum allocations for the radio industry, result from months of effort by the RMA Priorities Committee of which Paul V. Galvin of Chicago is



Octave Blake, Cornell-Dubilier president, who has been appointed chairman of the RMA Wage-Hour Administration Committee.

chairman. RMA negotiations for additional nickel, needed for tubes and volume controls, are proceeding, and an industry nickel conference with OPM is scheduled shortly.

## Television Audience Grows

Commercial television emerged from the first month of operation with considerable progress to its credit. NBC got its fourth sponsor for station WNBT in New York, a fashion show for Thursday afternoons beginning Sept. 4th, and went ahead with spectacular programming for an audience that is getting up to around 100,000. Field engineers are still busy changing the sets over to the new standards.

For some 570,000 residents of the Albany-Troy-Schenectady area in New York, commercial television came closer when General Electric got a grant from the FCC to operate W2XB, New Scotland, N. Y., commercially beginning Sept. 1. GE will experiment with color here.

Allen B. Du Mont is now demonstrating a new use for television by using a table model television on his cabin cruiser. He reports good pictures at distances of 50 miles or more.

## Check-up on Where Radio Parts Go

Organized action has been started on the matter of getting better priority ratings for the radio parts industry, by the Sales Managers Club, Western Group, with headquarters at 77 W. Washington St., Chicago. The Group has appointed a priorities committee to engage in a three-fold effort to improve the ratings for (1) the parts industry in general, (2) parts to be used to maintain existing receivers, and (3) parts which go directly or indirectly into Defense Supplies.

A vital part of the effort is the keeping of accurate records of all sales of parts. All purchasers of parts and accessories are urged to follow this procedure: (1) Find out from your customer what use will be made of the merchandise; (2) If it is sold to a government agency or is destined to find its way into Defense Supplies then get: (a) the contract number, or (b) a preference rating, or (c) if there is no number or rating, then get the customers' affidavit that the merchandise is being used for Defense Supplies; and (3) When you place an order with a manufacturer for component parts to replace merchandise sold "off-your-shelves" or being used by you in the completion of a defense contract, be sure to attach to the order, the contract number, the preference rating or the customers' affidavits.

It is believed that the cooperation of everyone in the business may enable



Here are a couple of hefties hooked by the Admiral radio president, Ross D. Siragusa, shown here between the catch and the guide, Shelby Cleveland. It all happened off the Florida west coast, where the Continental Radio head recently went fishing with his wife, who is likewise an expert angler.

manufacturers to get more of the needed materials, and to make more prompt deliveries to those who sell parts.

## Radio Census Further Delayed

Delays in the U.S. Census Bureau's schedules have again held up the issuance of the 1940 census of homes with radio by states and counties, which were originally scheduled for issuance, one by one, during the early summer.

According to *Broadcasting*, these radio-homes reports will now not start

until September. They will appear one state at a time, but no order of issuance has been decided upon nor is it expected that all of the 48 state releases will be ready until early in 1942.

The radio reports will show the number of radio homes for each state for urban and rural areas, for counties and for urban places having a population of 2,500 or more, as well as for metropolitan districts. They will parallel the housing figures already issued by states and now available from the Census Bureau.

After the State by State radio reports have been issued as press releases, they will be incorporated in a final report titled "Second Series: General Characteristics," but this report will not be available until early in 1942.

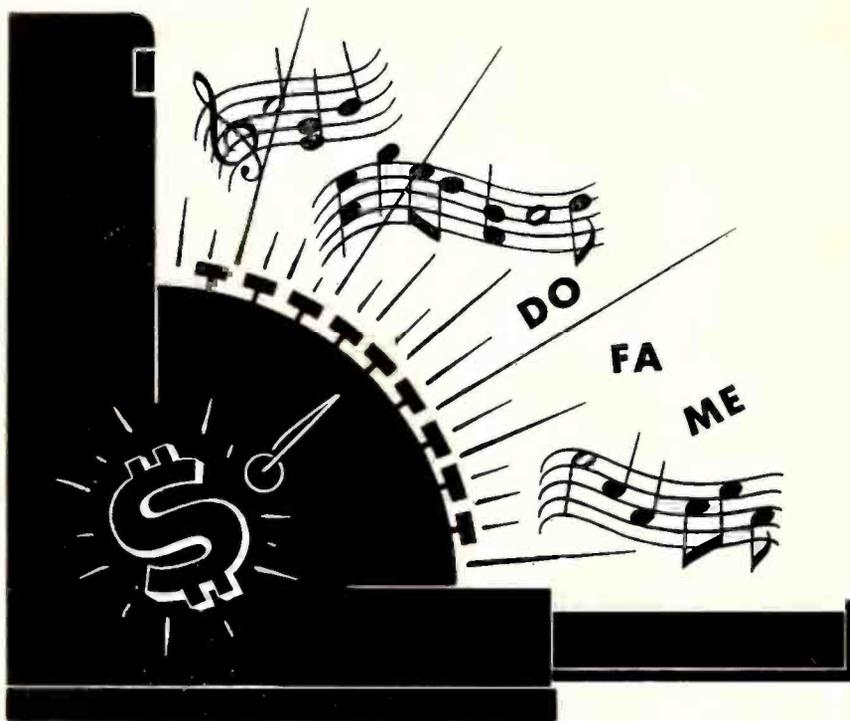
## Pennsylvania Bill Aimed at Employes' Wholesale Buying

Legislators in the state of Pennsylvania have taken action to outlaw the practice of wholesale buying by employes. Reports from Harrisburg are that the Senate has sent to the Governor "the Cohen Bill" which will stop "employers from directly or indirectly offering for sale . . . to employes or others any merchandise not produced by the employers, and not handled in their regular course of business."

The purpose of the new bill is to prohibit the use of purchasing agents by employers, to buy at wholesale and to sell to employes. The clause "directly or indirectly" is regarded as important, as it has been the practice of some employers to set up company-sponsored shops, and then to deny that such establishments are officially connected with the firm.



Ernest Alschuler, Sentinel chief, heads RMA Membership Committee.



# DEALER'S

## DOLLARS COME

increase, and trade-in allowances will be more nearly proportional to the actual value of the old set.

### TRADE EVILS PASS

Price cutting, surplus stock liquidation, and discount houses will gradually diminish and may vanish.

Maintenance and service will take on a new importance, will account for much more of the store's income and profit margin than in the past.

Exclusive radio stores must give earnest consideration to diversification. music, sporting goods, cameras and photographic supplies, or other lines of merchandise which may be readily fitted in and sold at a profit.

Electrical appliances are not here suggested because they too must soon feel the scarcity of their basic raw materials, even as radio.

As these factors change the complexion and the practices of the radio business, serious thought must be given to the realities of doing business under these changed conditions.

More than ever before, the immediate future requires serious thought, and careful planning.

### CASH IMPORTANT

Commercial credit is not going to thaw out. Adequate working capital will be more important in the future than it has been even in the past.

Merchandise must be paid for promptly, or the source of such supply may dry up.

Taxes will demand greater payments in cash.

Additional types of merchandise will increase the overall value of the inventory and require more capital.

The merchant will have to increase his capital, and turn it faster to keep pace with the new conditions.

That means many things—but primarily two.

1. Full price—full margin must be maintained.

2. Slow moving, or non-moving stock must be eliminated and its recurrence must be guarded against.

Some dealers are already finding new and profitable business in the modernizing of old sets.

Sweeping economic effects of National Defense have already been felt throughout the radio industry.

And many—and more profound—will be such effects in the months and years to come.

It is even probable that the entire character of the radio business will change, and certain it is that the thinking and the practices of the industry will undergo violent re-orientation.

Alert radio men will read the "signs of the times" and being fore-warned, will be fore-armed also and prepared.

Already radio leaders are predicting a drastic curtailment of production, by reason of the inavailability of raw materials. Supplies are now cut to 50 per cent, and this restriction may go higher within the next 12 months.

National leaders have stated frankly that direct taxes are going to be far greater than ever before, and indirect taxes will force the costs of doing business to new high levels.

### "RATIONING" OF SETS

These two facts alone, have tremendous meaning to the radio dealer and to the whole radio industry.

1. Demand will now exceed supply for the first time in more than 12 years and the pressure and drive for volume will cease.

2. Gross margin must be maintained if the business is to endure.

Curtailement of production should quickly be followed by selective distribution—and selective distribution should re-establish some real value to a dealer's franchise.

As the supply of new radio sets falls below demand for them, distributors will naturally give preference for the rationed supply, to their better deal-

ers, those who pay their bills promptly, and best maintain the prestige of the manufacturer's name.

Smart dealers will try to do a thoroughly good job with not more than two or three full lines.

And so it is probable that every distributor and manufacturer will have fewer, but better, dealers, handling his line.

It is a fact that a dozen dealers each doing his best selling job on one or two lines are superior to twice the number of dealers, each taking orders for six or eight lines, as measured by the results to the manufacturers and to the dealers themselves.

Intra-line competition will be greatly reduced and inter-line competition will continue, with the merits of the line emphasized by better selling, rather than cut-price efforts to induce the sale.

Terms will stiffen, cash sales will

## RADIO'S CLEAN-UP

1. Full price margins must be maintained.
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# PROFITS IN FALL CRISIS

FAST OR NOT AT ALL, DURING EMERGENCY

Trade-ins will be modernized and resold at a profit, and should be "traded" with that purpose in mind.

Collections must be speeded up and the cost of "floor planning" and financing must be reconsidered in the demand for greater operating gross profit.

## "GOOD MEDICINE" FOR LONG PULL

Few of the changes brought about by the new conditions are bad for the industry in the long run.

Many of them are in fact no more, than thousands of dealers have been crying for, these many years, though called by other names.

Conditions beyond our control, now present the opportunity for the entire industry to get together, and painlessly purge itself of the real practices known to all of us, which have whit-

ted profits to the point of vanishing.

The ethical plane of the radio business should be elevated. Manufacturers should promptly stop selling the "discount houses," give full protection to the dealer who is doing a sound and an honest job.

Dealers must pay more attention to their own business, and not worry about how long his "fool" competitor can last.

## PAY FOR PAST SINS

Some dealers, it is true, may have to pay the full price of their past merchandising and management incompetence.

But the smart dealer will think carefully, plan surely, act courageously, and he will soon have a better business, and himself be a better business man, than in the years just past.

The radio industry is face to face with important problems, and particularly the dealer. But they are not insuperable and they will respond quickly to thought and action.

## OPPORTUNITIES FOR THE FITTEST DEALERS

And having taken full advantage of the opportunities offered by the new conditions the radio industry may well live up to the expectations and promises it offered in its infancy.

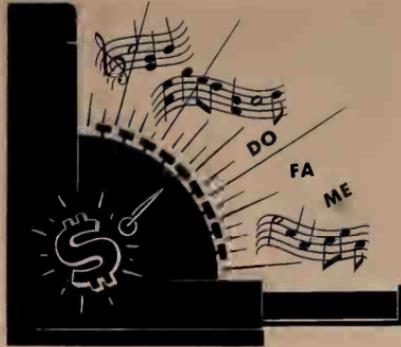
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Radio dealers will now conform to the fundamentals of sound business, as indicated by the economic forces now at work, or these forces will swamp them, and destroy them.

The fit will survive—and prosper—as never before.

National Defense ranks first, and the resulting shortages in materials change the radio sales picture.





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Photos by U.S. Army Signal Corps



# WHAT FM MEANS TO ME

A FIRST-HAND REPORT TO THE TRADE ON FREQUENCY-MODULATION PERFORMANCE

By O. H. CALDWELL, *Editor, Radio Today*

To those of us who live in the service range of FM stations and have had frequency-modulation receivers in our homes for a year or two, "FM" has come to mean—

1. General perfection of radio reception.
2. Complete absence of static and electrical interference.
3. Fidelity of reproduction of all high-frequency tones.
4. Superb life-like reproduction of speech, with clear crisp consonants.
5. Wide range of volume intensity, paralleling actual orchestral effects.
6. Complete receiver silence during intermissions.
7. Automatic separation of stations without "crosstalk".
8. Need for much patience and accuracy in tuning.
9. Need of high, unsightly outdoor antennas in outlying districts, where internal dipoles or power-wire pickups cannot be used.
10. Bother in switching from horizontal to vertical antennas where local stations are not uniformly polarized.
11. Limited number of FM stations yet available for listening.

The above outline is not based on reports by FM boosters or critics, but from first-hand experience with FM listening, day and night, winter and summer. It sums up as I see it, FM's great merits—and its present slight drawbacks (most of which will disappear with compensated push-button tuning, higher station powers, and a uniform polarization standard).

## MORE STATIONS: MORE RECEIVERS

Because FM thus seems to offer a new and improved form of radio service which discriminating listeners will want, we of RADIO

TODAY, have watched with interest the expansion of the FM idea, as more stations have applied for FM licenses and more re-

## A Plea Against Lowered Receiver Standards that Will Impair FM's Unparalleled Perfection of Reception

ceiver manufacturers have added FM sets to their lines.

But among FM receivers, it is now beginning to appear, there are appreciable differences in performance—in tone quality, sensitivity and ability to suppress noise.

However, all these FM sets do receive FM stations, and under appropriate conditions each such set may give its owner performance which will be deemed satisfactory.

In some of the sets which meet the requirements of lower price brackets, as might be expected, some limitations of performance are apparent. These shortcomings, radio dealers and radio servicemen should clearly understand, in talking with customers—else customers and public are bound to be disappointed. For in cases where inexpensive FM sets give unsatisfactory FM service compared with higher-priced quality receivers in the same vicinity, the customer reaction is bound to work criticism of the dealer, serviceman and manufacturer, unless due allowance for price difference is made.

### STANDARDS OF PERFORMANCE

Take an analogy from the camera field. To talk merely about "FM" sets is like talking about "cameras" in general. There are all kinds of cameras. But when a man buys a Graflex camera, he knows he is buying and paying for a high standard of performance; when he buys a Brownie, he is getting another standard.

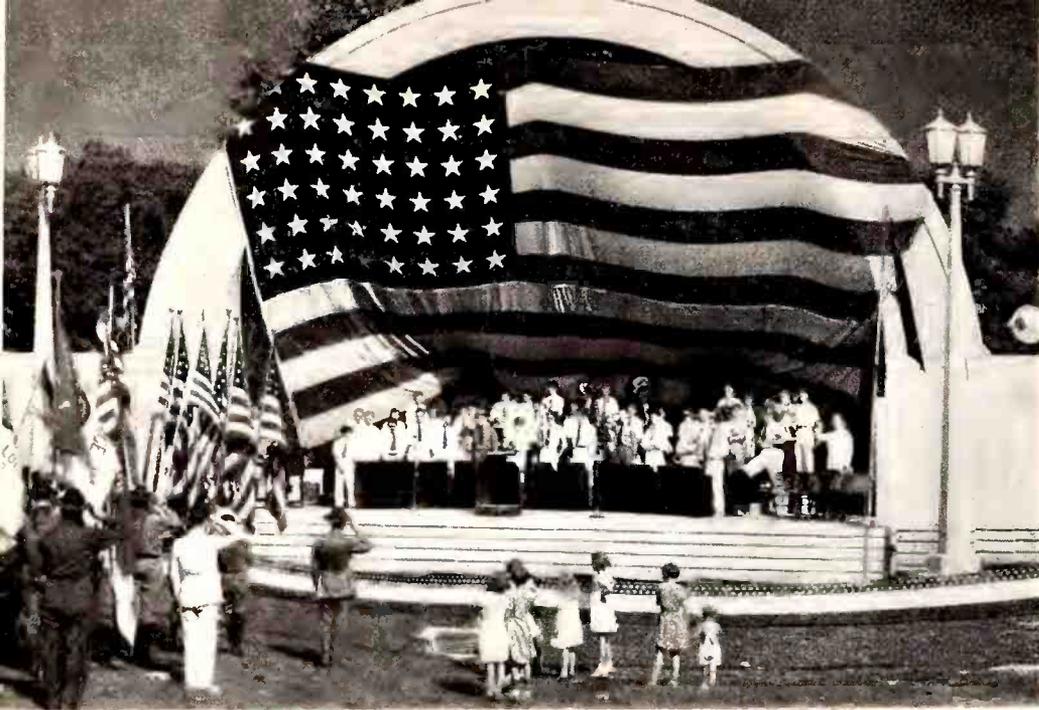
It is time the FM situation was similarly cleared by setting up standards of performance and price, preferably defined by names, for convenience. Until the FM atmosphere is thus cleared, special responsibility falls on the radio dealer and serviceman to take great pains to give the customer the standard of FM performance that the customer wants and expects and is willing to pay for.

And only careful conscientious study and experiment "on the spot" at each proposed job will show the radio man whether—with the set and price he is offering—the customer will be able to enjoy the superb reception which "FM" has come to mean to those who know the *full possibilities of FM performance!*

### FM Broadcasters Are Investing Heavily for Big FM Future—

Left—Boston relay antenna  
Center—New Albany, N. Y., station  
Right—50-kw. tower, Paxton, Mass.





Bandshell and stage at Devou Park, Covington, Ky. Here, 65,000 people gather for entertainment and community singing. Speakers on top of the shell and on either side, cover a 200 degree arc.

# OUTDOOR SOUND

## NEW PROSPECTS FOR OPEN-AIR P. A.

More people are staying home this summer and enjoying their local civic entertainment. With travel abroad at a virtual standstill, the public is turning to more of the local activities. Ball parks, circuses, fairs, race tracks, and other outdoor events are attracting record crowds. And what is more important to sound men, these large public gatherings require P.A. equipment and sound installations. There is an ever growing market for sound systems in these public amusement centers.

As an example of what is being done in this particular field of sound installations, the following jobs of a Cincinnati sound man are described

to show the types of problems encountered.

### SOUND FOR 65,000

One of the outstanding P.A. installations is that made by Cooper Sound Equipment Company in Cincinnati, Ohio, at Devou Park in Covington, Ky. (across the river from Cincinnati). Here weekly community events attract throngs that compare with outstanding events in the nation . . . a sea of humanity anywhere from forty-five to sixty-five thousand people. To handle sound properly and without distortion for so vast an audience is a big problem.

These concerts are free to the pub-

lic and each week outstanding stars of the screen, radio and theater are guests here. Musicians, soloists, and orchestras also appear to entertain the public. The park seats 65,000 people in an area extending from four hundred to five hundred feet from the concert platform, and in a full 180 degree arc. This entire area is covered by the sound system.

The orchestra shell is of solid concrete. For community singing, a large screen is rolled across the shell platform for the lantern-slide songs. The screen is a large piece of canvas which covers two-thirds of the stage opening. When this screen is up, it kills the sound from the band and thus it has to be picked up and re-inforced by the system.

### WIDE ANGLE

"One thing this P.A. system does that the average sound system is not called upon to do," says Robert E. Cooper, "is that it covers close to 200 degrees. Eight speakers are used to spread the sound equally over the large area. The equipment is all closed up and locked so no one can tamper with it. Remote control is used and the operator sits in with the audience where he can mix the mikes and judge the pick up and volume level.

With forty thousand and more people joining in community singing they can be heard for four or five miles in any direction. Yet when the crowd is singing like that, the leader can still be heard over and above the other voices.

Western Electric amplifier equipment and mikes are used with a normal rated output of 100 watts. The only time that full output is used is on community singing, and then only at peaks.

### ALL ABOARD

Another unusual P.A. job installed by Cooper recently was at the Union Terminal railroad station. The equipment is installed in the control tower of the depot building, where all switching controls for train routes are made for about three miles each way from the depot proper.

This sound system is unusual in that it has to furnish exceptional intelligibility above the high noise level.

(Continued on page 44)

Union Terminal depot in Cincinnati, where a sound system carries instructions to train make-up crews. High noise level calls for special handling of speakers and amplifying equipment. Shown in front of the Terminal are the trucks of Cooper Sound Equipment Co.



# FAITHFUL SERVICING GETS

Radio Men's Technical Thoroughness  
Misinterpreted by Readers Digest,  
Calling It Gypbery

# BLACK EYE

Reproduced below are the opening paragraphs from the article "The Radio Repairman Will Gyp You If You Don't Watch Out" which Roger W. Riis contributes to this month's *Readers Digest*. Nearly four million copies of this documented attack on radio servicemen went into American homes this month.

Probably many of your own neighbors and townspeople read the article, and as a result now view with suspicion every man who repairs radios.

While the investigators undoubtedly attempted to be fair in making this study of conditions in the radio-repair business, we think the conclusions reached present a very unjust picture of radio service practices and morals, because of the very nature of any investigation conducted in this way.

## SEVERE ABUSE OF SETS

For one thing, consider the portable radio sets used in making these calls. A radio set is a fairly delicate piece of apparatus, and even though it was in first-class shape at the start of the 20,000-mile trip, think what must have been its condition after having had wires loosened, tubes pulled out, and chassis opened up for test, not once but *hundreds of times!*

Such manhandling, apparently overlooked by the investigators, would widely affect the condition of the set as it was taken into each shop for repair. The two portables, which were reported perfect at the beginning of the trip, were subjected to a ride through 48 states, and were tampered with at least 150 times apiece, followed by as many bench tests for repair. The backs of the sets were thus removed a total of more than 600 times, grid-leads were pulled off, and tubes were pulled out, to be left dangling in their sockets.

Certainly the effects of vibration of nearly 20,000 miles of automobile travel—plus the 300 instances of tampering by the unskilled hands of the investigators in "planting" faults—left the sets in condition where, very legitimately, any conscientious serviceman would feel called upon to make a thorough check-up, even after he had seen and replaced the loosened wire or tube.

## MUST LOOK BEYOND OBVIOUS

Any man who has repaired radio or electrical equipment has had the experience of completing some obvious replacement, only to find that *other* and more *obscure* faults also existed and were the real trouble that had to be traced out and remedied. This happens particularly with family radio sets brought in for servicemen to repair. The set may have stopped playing sometime in the past, and then some amateur "neighborhood genius" may have attempted repairs, during

which he might have loosened a wire or a tube—with exactly the same apparent result as the *Readers Digest's* "planted" faults. But any experienced radio serviceman will restore such obvious disconnections as a matter of course, and then go on to look for the real source of trouble.

## INSURANCE FOR FUTURE

Undoubtedly the *Readers Digest* poll includes many instances in which, for just such conscientious performance of his full duty to the customer, the careful serviceman was later penalized and called a "gyp" by Mr. Riis.

In such cases, it took time, intense effort, and technical knowledge to make extended scrutiny of the set, after replacing the obvious fault, and for this time and labor, of course the serviceman was entitled to be paid. Such payment was, from any reasonable viewpoint, cheap insurance against occurrence of future trouble which might have been excessively annoying to a traveler in out-of-the-way places.

## PARTS OUT OF ADJUSTMENT

Moreover, a conscientious repair man, called on to aid a woman traveler with a banged-up portable, and surmising she was on a long trip, was justified in looking for and replacing any tubes or radio parts that seemed in doubtful condition and might cause trouble later. Any careful repairman would do this in entire good faith—hardly realizing that his very solicitude for his customer's comfort and peace of mind, was to make himself the target of a charge of "gyping" repeated four million times.

Even the best of faith on the part of the investigators in reporting that

their "portable sets were O.K.," is not trustworthy evidence of the true conditions of such sets, where portables are concerned. As any radio man knows, the filament in the tubes of such a portable are delicate beyond comparison, being of a diameter finer than human hair. Other parts in these tubes are correspondingly delicate, and through rough car riding and handling may become displaced so that the characteristics of the tube will change and with it the performance of the set. Undoubtedly it was such shifts in receiver performance that led many careful servicemen to make further scrutiny of the sets' "innards," after replacing the loose connections, as complained of by Mr. Riis.

## BACKS REMOVED 600 TIMES

Repeated removal of the backs of the sets and the loop antennas (during the hundreds of "tamperings" and resultant service inspections), would lend to mis-alignment, which the serviceman would detect and then would legitimately correct.

How can it be assumed that the sets being used as guinea pigs were in perfect condition as claimed, except for the "fault" set up by the investigator.

No one without the rudiments of test equipment, least of all a non-expert, can tell the exact condition of a receiver after it has been subjected to such treatment. The ear is a very poor judge of how a set is performing, and certainly it is most unfair to assume that an expert radioman is lying when his instruments report a faulty condition to exist under such circumstances.

When investigators deliberately set  
(Continued on page 32)

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## "Will be cheated 64 out of 100 times"

★ "When the average American takes his radio set into a repair shop, his profound ignorance of the set's workings will be duly rewarded, for he will be cheated 64 out of every 100 times by repair men who will sell him tubes, batteries and service which his set doesn't need, or charge him for new parts they didn't put in. In some cases they will even remove good parts and add them to the supply on their shelves, substituting inferior equipment.

Such is the conclusive evidence produced by *The Readers Digest* investigation which tested 304 radio repair shops of every type, in 48 states from coast to coast, from the Great Lakes to the Gulf.

"The investigators (the same two, John Patric and Miss Lioy May, who conducted the automobile inquiry) started out with brand-new portable radios of two nationally known makes, in flawless condition. A few minutes before each shop was entered, the radio had been playing perfectly, but was deliberately put out of order by the investigators, sometimes by disconnecting a snap-on wire, usually by loosening a tube. When the backs of the sets were taken off—which could be done with the fingers—even a layman would not fail to notice either the dangling wire or the wobbly, projecting tube. A repair man who didn't see them, and speak up, was taking the first step toward petty thievery.

"That the test was fair is proved by the 76 repair men who spotted the trouble as soon as they opened the back of the set, and made no charge; 33 others made a charge so trifling as to class them also as honest. But these 109 honest men were in a sad minority.

"Of the 304 shops tested, 195 tried by one dodge or another to take advantage of the customer. That's a score of 64 per cent in favor of gypbery." ★ Roger W. Riis in *Readers Digest* for August.



U. S. Army Signal Corps

In the new Army of the U.S.A. are hundreds of men who have the place and the need for efficient new receivers.

# A RADIO FOR EVERY RECRUIT

## MARKET FOR SETS INCREASES AS THE ARMY GETS BIGGER AND BETTER

From a town in the Middle West comes the story of the radio dealer who was energetically advertising a string of new portables in a local newspaper. One day, it happened that his ad appeared on the same page with the latest list of local draftees. Whether or not there was any direct result of this position, the fact is that the dealer got his best sales results from that particular ad. Thousands of people are looking for something to ship along to the boys in camp, and if smart new radios are suggested at just the right time, extra sales are a cinch.

### REAL VOLUME

Another dealer reports that in his current business, "sets for soldiers" is the most important single sales factor in the picture. And he does not sell direct to the recruits, either—he sells to the friends and relatives of the recruits. The newspaper lists of those being called in Selective Service provide dealers with valuable clues as to who the immediate prospects are.

Total population of the Army Posts, Camps and Stations is now around 1,500,000; it's a big market for the retailer who sells compacts and portables. More men are being enlisted and drafted every day, and there's some rule pending on extended service, to include additional millions. New radios that are especially suitable for

military use are winning additional publicity and attention every day.

### MONEY FOR SETS

The great mass of dealers who sell to the family or friends of the soldiers, rather than to the soldiers themselves, naturally are not hindered by the fact that the earning power of many inductees is \$21 monthly. However, for the benefit of dealers whose stores are near camps, and who sell direct, it has been pointed out that the income of many hundreds of the draftees is well over \$21; many of them are being paid a per cent of their previous salary by their former employers, and many of them get money from home.

Direct sales become a big factor in the radio business when you realize that there are Army Posts in every state in the country except Montana and Nevada. From the lists of the War Department, giving the "estimated eventual populations" of the Posts for late summer, it can be seen that concentration of men range from 200 at Des Moines, Iowa, and at San Angelo, Texas, to 60,900 stationed at Ft. Bragg, N. C.

In any case, promotion efforts on the part of retailers, directed to this market, are tremendously worth while. Window stunts, mailing pieces, and newspaper ads on the subject should pay off. For three special reasons, (1) such promotions provide a timely

topic during the selling season when such topics are scarce in radio, (2) the advertising fits in nicely with the general trend toward patriotic themes in promotion, and (3) there are plenty of improvements on the new sets to crow about, anyway.

In Army Post areas, some competition will be offered to radio dealers, by the "Post Exchanges" within the camps. Some of these Exchanges are selling radios, as has been mentioned to RADIO TODAY by a radio dealer of Stayton, Ore. Any under-selling that these Exchanges might do, to the detriment of established dealers, is discouraged by Government regulations. Incidentally, the supplies for these Exchanges come from jobbers or manufacturers via individual transactions; they are not bought by the War Department. The Exchanges are run as private enterprises, and their fundamental purpose is to supply "small personal needs."

### MARKET FACTORS

Army officials repeat that it is better for soldiers to wait until after their permanent placement is determined, before they add a radio to the personal belongings that they must drag around. Battery portables and new model compacts are in high favor among the recruits, and in some camps the men are using radio-recorders to make records to send home instead of letters.

# PHILCO Invention Keeps Your Profits UP!

## Only Philco Gives You These New, Modern "Sell-Up" Features

Philco . . . and *only Philco* . . . gives you for 1942 the sales features you need to SELL UP for greater volume and bigger profits! The full power of Philco's big advertising campaign is featuring exclusive inventions that the public *demands* . . . in price brackets that give you real dollar margin. See your Philco distributor NOW and cash-in with these new, modern achievements!



PHILCO 1012 RADIO-PHONOGRAPH

Music on a Beam of Light

Philco Automatic Record Changer

Stroboscope Pitch and Tempo Control

Improvements in Home Recording

Brand New 1942 Tilt-Front Cabinet

Exclusive Philco FM System

**PHILCO ALL YEAR 'ROUND**

**The Most Valuable Franchise  
in the Appliance Field!**



The shiny discs at the right show the steps in making a record—a novel theme for a handsome display of Columbia albums at Frederick & Nelson, Seattle.

The sales and promotion tips contributed by these dealers can be classified under ten topics.

#### ALL OVER THE STORE

1. It's a smart idea to keep at least a few albums in your record booths. Put them on small racks or shelves. One dealer reported enthusiastically that a lot of customers will dig into these albums before they leave the booth after hearing other records.

2. You can sell more albums if you'll make some provision for the folks who are inclined to "browse." This means that you must get a selection of them out from behind the counter—on racks, shelves and on counters. If your variety is good, the "traffic" will look around and spot a set of records they want to hear.

3. Often it is appropriate to pick a single album that rates a big window display all by itself. For instance the "Rhapsody in Blue" album will give you a colorful and interesting theme for a nifty display. Sets of discs by piano artists will also suggest musical

# ALBUMS PAY OFF

The new albums, the ones with the colorful covers, the popular prices and just the right music, are hogging the spotlight in many of the record shops.

Dealers are thinking of the old idea that "albums pay the rent" and now that there's such a wide selection of the neatly packaged records available to them, the profit opportunities are attractive indeed. Possibilities for display, promotion and demonstration of the new albums are without end.

This world map bristles with ribbons at Grinnell Bros., Detroit, tagging foreign albums by Victor.

In a survey of record shops, mostly in Pennsylvania, New Jersey and in New York, the scouts from RADIO TODAY have found that record men are using some merchandising ideas that will certainly stand review. Even during a season that is not a peak one for records, most of the retailers had lively reports to make on how discs were selling, and they brightened visibly when you asked them about the albums.

displays, using keyboards, sheet music, etc.

4. Be sure that your new albums are properly announced to the people who might be interested. Don't bury the new numbers just because they may not be accompanied by special promotion materials. Get the news to the right prospects.

#### SUGGESTED SALES

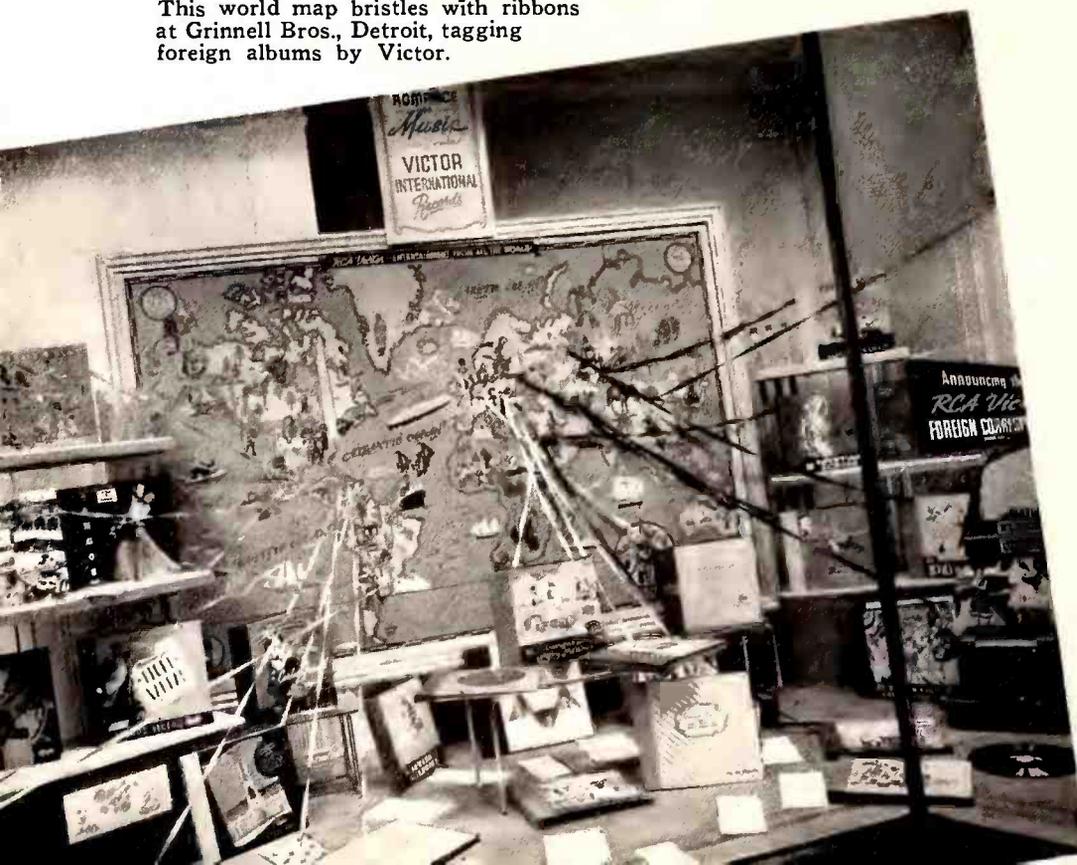
5. Keep a couple of the wide-appeal numbers out on the counter and don't hesitate to suggest them tactfully to people who buy other things. (This technique was found to be in progress in some of the highest-class stores.)

6. Remember that the easy-to-cart-around quality of albums is important to the owners and buyers of portable record players. Vacationists like a convenient way to take discs along.

7. Occasionally an album has a timely news value because of its connection with world events; this will suggest some display and promotion stunts that are unusual for the record business. "The White Cliff of Dover" is an example—this album is timely for the duration.

8. On account of shortages in some quarters, a dealer these days may not have enough small sets to display in front of the console sets. Albums fit in here very nicely; most of the big sets in the background have record-playing features, anyway.

9. Some albums can be dramatic.  
(Continued on page 34)





# SOUND IMPROVEMENTS

*are coming out of these bottles . . .*

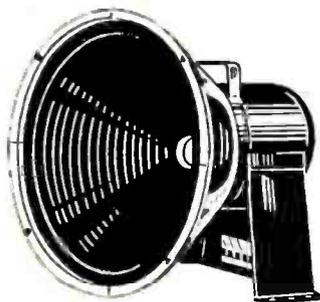
● Important things are happening in the Utah laboratories these days. In the chemical laboratory alone, new metals and alloys, new coating and impregnating solutions, new insulating and conducting materials are being tested and developed. These and the achievements of the other Utah laboratories and departments are evidence of the sound improvements which Utah is providing for this industry.

The demands of the DEFENSE program are affecting almost every important American industry. Many materials, heretofore plentiful, are available now only in limited quantities, if at all. Methods of preparation and manufacture previously employed have, of necessity, been changed. And costs of carrying on normal business have been revised materially.

At Utah, every effort will be made to

continue "normal" service to the radio and sound equipment industries—to maintain the precision manufacturing standards which have won a marked preference for Utah products—and to carry on research and development work which will result in *better* products, not mere substitutes, during the emergency.

Utah Speakers give you the benefits of the constant laboratory testing and research which result in sound improvement. In the complete Utah line there is a speaker to meet every requirement. If you do not have the 1941 Utah catalog, write for your free copy today. There is no obligation. Utah Radio Products Company, 814 Orleans Street, Chicago, Illinois. Canadian Office: 560 King Street, West, Toronto. In Argentine: Ucoa Radio Products Co., SRL Buenos Aires. Cable Address: Utaradio, Chicago.



## S P E A K E R S

VIBRATORS • TRANSFORMERS • UTAH-CARTER PARTS

# MUSIC DEALERS SPEAK UP

An exceptionally good sales outlook for the finer radio-phonograph instruments was outlined by prominent music dealers, as they "opened up" for RADIO TODAY's reporters at the Hotel New Yorker, New York City, during the annual convention and show of the National Association of Music Merchants.

Many of the 3,500 guests at the convention which closed Aug. 1 spoke frankly to the reporters, voicing a uniform optimism as to radio sales prospects in their stores. Most of them had already seen the exhibits of some four dozen manufacturers of radios, combinations, phonographs, records, electronic musical instruments, etc., the largest radio showing on record for NAMM conventions.

The general tone of the music show, to be noted among all groups of exhibitors and guests, was described by W. A. Mennie, re-elected executive secretary of NAMM, as showing "record interest." Looking ahead, Mr. Mennie said that plans were being made to hold a big convention in Chicago in 1942.

A number of the comments made for RADIO TODAY by the retailers are reported herewith, by stores.

**McCOY'S, Torrington, Conn., J. T. Crosson**—"The upper bracket radio-phonograph combinations look better and better to me. Just the other day in a single half hour, I sold two *Nutcracker Suite* albums, at \$6.50 per! I think the public has had enough experience with cheaper record players, that they now want the expensive combinations with the new features. The teaching of music appreciation in schools has helped a great deal."

**FORBES PIANO CO., Birmingham, Ala., E. E. Forbes**—"Everybody, or practically everybody, is in a mood to want music of their own. That's why we can say that the public is radio-combination-minded, these days. I believe that cabinet appeal of the better radios have a lot to do with it, too."

**C. W. HOMEYER & CO., Boston, Mass., F. F. Homeyer**—"I expect that the volume in the months to come on quality type radio combinations will be tremendous. The public is making an eternal search for 'no-noise' reproduction of the music they like. Once a music lover finds an instrument that gives him faithful renditions, he becomes an awfully fine advertisement for that instrument, because his enthusiasm is boundless. This year I notice that they want automatic record changers, if they're quiet and gentle, and I think they're getting more interested in period cabinets."

**STEINERT'S, Worcester, Mass., O. J. Murphy**—"A dealer is a fool to give away his profit under the circumstances today. He should not be afraid to ask for higher prices—he should be eager to demonstrate fine radios, but I know that very often he isn't. He should realize that today there are symphony fans galore, in his neighborhood, who know tone quality when they hear it, and best of all, are able to pay for it! The dealer has been in a price rut, and now's the time to get out of it."

**WEEKS & DICKENSON, Binghamton, N. Y., A. J. Darch**—"I'm very encouraged about the demand for higher priced radio combinations. Why, this class of merchandise will account for 50 per cent of our total business, this Fall. I think the interest in music was always there, and that the extra

sales is due to more money floating around."

**AUSTIN MUSIC CO., Birmingham, Ala., G. W. Austin**—"We have found out that even when our customers ask for a straight radio, we can get them interested in a set with a record player. Genuine tone quality will sell itself if you will slip in a few remarks to help them understand it better. It's very much worth the effort."

**WITTICH'S, Reading, Pa., J. C. Mast**—"I notice that all the musical events and concerts of serious music are better attended than they used to be, in our town. Our people are getting to like good music, and that's why we can sell them good combinations. Give them automatic record changers and good cases."



H. M. L. CAPRON, Merchandising Editor

**CAP SAYS:—**

## "MODERN MUSIC MERCHANTS HAVE GOLDEN OPPORTUNITY"

• In a world now overrun with madness, with human nerves as taut as bow-strings, people by the tens of thousands are turning again to the solace of music, particularly music in the home.

• Until twenty years ago, when radio burst upon the scene to capture popular fancy, the music merchant was a respected, influential member of almost every community, taking an active part and often leading in the cultural life of his home town.

• Always the music merchant has been known and recognized for his fine merchandising skill, for his high type selling, for his business ethics and ability.

• Unprecedented prosperity in the 1920's, the new-found novelty of radio, coupled with the extreme resistance to change on the part of many music merchants, all contributed to the decline of the number and the position of the old time music merchant.

• Conditions today are reversed.

• Twenty years of radio have brought a new appreciation of fine music to millions of people.

• People crave music—the music they want—when they want it.

• The fast rising tide of popular demand for music—for pianos and musical instruments of all kinds, for phonographs and records, may one day engulf the radio dealer who does not recognize the trend, and sticks only to his radio.

• Every radio dealer should give earnest consideration to music and musical instruments, now, and for the future.

• Not alone as things to sell, but as the way also of doing business, of serving his community, of making greater profits.

**ANDREWS MUSIC CO., Charlotte, S. C., J. M. Panetti**—“It seems to me that radio broadcasting has brought music appreciation to the masses, where it belongs. And when they learn something about good music, they become very sensitive about players that don't do it justice. So they're buying better combinations. They think it's smarter to get two instruments instead of one, anyway. I have noticed that many musicians buy records so that they can play along with them, too.”

**McCLISTER MUSIC, Bristol, Tenn., C. W. McClister**—“I know of very few of the better families in our area who haven't gone in for a quality type radio combination. They want to pick their own music and they don't want it ruined by bad reproduction. The other families, as everyone knows, are earning more money these days, and I think they take pride in improving their musical taste, too.”

**PARKER-GARDNER, Charlotte, S. C., J. M. Gardner**—“Customers will now spend \$30 or \$40 for sets of classical records, when a year or so ago they would have spent their money on something entirely different. It's a new sentiment for home entertainment, growing in this country, and it looks good for a dealer selling music and good radios. Parents are really interested today, in getting these things for themselves and their children.”

**MUSIC STORE, Attleboro, Mass., A. J. Nichols**—“People these days are buying fine radios, not because they want to ‘keep up with the Joneses’ but they sincerely want to listen to good music of their personal selection along with radio entertainment. You can tell this by the number of good records they buy subsequently.”

### Columbia Reviews Year of Classical Progress

This month the “Masterworks for Millions” policy of the Columbia Recording Corp. is one year old, and for this occasion the CRC president, Edward Wallerstein, has issued a statement citing the progress made by Columbia during that time. Mr. Wallerstein said that “public response throughout the country has resulted in unqualified success for our program.” It was just a year ago that the firm announced price cuts as high as 50 per cent on classical records.

The Columbia head viewed the details of how the company has augmented its catalog of fine music, with symphonies, opera stars, chamber music works and distinguished instrumentalists. He also reported on the success of the “Add-A-Part” series for amateur musicians, and cited the Student Music Library Series and the Masterpieces of Literature as two examples of “steps we have taken to provide recorded material that educators have endorsed and are using in schools.”

### Recoating Discs Proven a Good Idea

In recording circles, it has been rumored that the practice of having aluminum blanks recoated is considered by the Government to be unpatriotic. However, some firms in the business now point to the specific statement of the Office of Civilian Defense that the aluminum collection campaign applies only to aluminum “no longer of any use to the consumer.”

Believing that recoated discs are an important part of radio today, and trying to make the most efficient use of aluminum already owned by the recording industry, the Presto Recording Corp., 242 W. 55th St., New York City, is recoating discs as many as 20 or 30 times. This practice has been found actually to release more of the metal for defense purposes, than would be available if the discs were turned in as scrap.

### Novel Photo-Disc Album Ready for Youngsters

A new album to sell to parents who are interested in recording the early voice sounds of their babies, has been released by RCA Victor. It has space for six 6-in. Phonograms (recording blanks), a place for snapshots, and appropriate indexes. Other features are its colorful illustrations and sample scripts. This combination photo and record album is described as “having wide appeal to all who have or know youngsters.”

LET THIS **Fidelitone** SALESMAN work for you!

Nationally Advertised **50¢**

**FIDELITONE**  
FLOATING POINT  
6 MONTHS SERVICE FROM EACH NEEDLE  
PHONOGRAPH NEEDLE

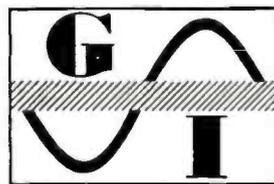
FILTERS RECORD SCRATCH THROUGH FLOATING POINT

Put this FIDELITONE Floating Point Counter Salesman to work for you NOW! . . . Increase your phonograph needle profits with FIDELITONE Floating Point Needles . . . Order a display today from your distributor or write the makers.

**PERMO POINT**  
**PERMO PRODUCTS CORP.**  
Manufacturing Metallurgists  
6415 RAVENSWOOD AVENUE, CHICAGO, U. S. A.

## Get Selling Power, Too In “Smooth-Power” Motors

DAY by day in floor demonstrations of phonographs, combinations, changers and recorders, you will make more sales — easier — when the motors also stand up and do their part of the selling job. Make sure yours are General Industries “Smooth-Power” Motors.



G. I. makes the most complete phono-motor line that is obtainable from one manufacturer. Motors, motor-and-pick-



**NEW!** Dual Speed Home Recorder and Phonograph Assembly. 78 and 33 1/3 RPM. Cuts records up to 10". Plays them up to 12". Streamlined, attractive design. Easy to operate.

up assemblies, recording mechanisms, all “Smooth-Power.” Specify G. I. equipment in your sets. For service jobs, rebuilding and modernizations, too, use G. I. full-line service. Order through your Jobber.

**Catalog and prices on request.**

**The GENERAL INDUSTRIES CO.**

Dept. 15

Elyria, Ohio

Order your Cutting and Play-Back Needles from our Affiliate, GENERAL PHONOGRAPH MFG. CO., INC., PUTNAM, CONN.



## Ben Miller Joins Meissner Mfg. Co.



Ben Miller, now with Meissner

The new sales manager of the Jobbing Division of Meissner Mfg. Co., Mt. Carmel, Ill., is Ben Miller, according to an announcement by G. V. Rockey, Meissner vice-president. Mr. Miller, who has had a total of 16 years in the radio business, is a radio merchandising expert who appreciates jobbers' problems, and at Meissner he will work for closer and more effective relationships between the factory and the distributors.

The new sales manager comes to Mt. Carmel directly from 10 years as purchasing agent for Lafayette Radio Corp., formerly known as Radio Wire & Television, Inc., or Wholesale Radio Service Co., New York.

## Philco Brings Out New Farm Radios

Philco is now ready with its 1942 line of farm radios, four table models and two consoles, announced by John F. Gilligan, farm division manager. Features include new power systems, improved circuits, and a new aerial system.

Aimed at the farm population of 35,000,000, the newly designed sets emphasize tone, performance and economy; Mr. Gilligan believes that "the farmer is one of the most discriminating listeners in the country."

## Leather Covers for Standard Radios

The idea of dealers getting new, leather-covered cabinets for their small sets, in order to add something different and distinctive to the sales appeal of table models, is now catching on in the trade. The new coverings are available for popular units of leading makes, offered as durable, handsome, novel and exclusive.

For instance: A dealer has several

compact housed in regulation plastic or veneer cabinets, which do not seem to move. He connects with the leather cabinet manufacturer, and orders from a variety of colors, by make and model number. He transfers the chassis, and because he is then able to offer something exclusive in styling, he is able to sell the dressed-up jobs at a good profit. The cabinets cost him between \$3 and \$4 each, depending on the number ordered.

Frederick Kugel, manufacturer of radio and record novelties and accessories at 1233 Sixth Ave., New York City, is a specialist in this leather covering business, and he points out that his genuine florentine leathers, gold-tooled, fit in nicely with the growing public preference for leather finishes. He deals directly with dealers.

## GE Shares Profits with Employees

This month, a general profit-sharing payment of approximately \$2,373,000 for the first six months of this year was made by the General Electric Co. to about 68,000 eligible employees, president Charles E. Wilson announced. Last year, a payment of about \$2,232,000 was made to some 60,000 eligible employees.

## Crosley in Texas

The Huey & Philp Hardware Co., 1900 Griffin St., Dallas, Texas, has been named distributor for the Crosley line of major household appliances in the Dallas area.



## Do you Service AUTO RADIOS?

— Here's Your Wire Insurance



Auto Radio Shielding



Shielded Low Capacitance Lead-in



Shielded or Non-Shielded Spark Plug Wires (also motor grounding cables)



Shielded or Non-Shielded Primary Wires

For Antenna Wire and Kits, Hook-up Wires, Microphone Cables, and all other specialized wires for radio and sound equipment—see Belden Cat. 841.



If you are getting your share of the millions of auto radio installations and service jobs—why not save yourself the complaints that result from wire failure?

Specify Belden Auto Radio Wires—part of the regular line—built to the same rigid quality standards that have made Belden a leading supplier to manufacturers since the inception of radio.

Be sure of good, permanent wire connections . . . buy Belden from your jobber.

Belden Manufacturing Company  
4613 W. Van Buren St.  
Chicago, Ill.

# Belden WIRE

FOR GOOD CONNECTIONS

### GE plastic set



★ A mahogany molded plastic set, L-621, with double grille treatment. An AC-DC six tube receiver it contains 2-bands, offering international shortwave and having 2 built-in Beamscopes for long and shortwave reception. 5 in. dynamic speaker. Illuminated horizontal dial. General Elec. Co., 1285 Boston Ave., Bridgeport, Conn.—RADIO TODAY.

### Emerson superhet



★ Emerson 6-tube AC-DC set, model 413, with tuning range of 540 to 1630 kc. and short-wave 25-31 meters. 6 in. dynamic speaker, inclosed super loop. A.V.C. Illuminated slide-rule dial. Bakelite cabinet in walnut and contrasting darker toned grille and base. \$19.95. Emerson Radio & Phono. Corp., 111 8th Ave., New York, N. Y.—RADIO TODAY.

### Fada WP102



★ A wireless record player housed in a walnut wood cabinet has a constant speed self-starting AC phono motor, and crystal pickup. Features are jeweled pilot light on front panel, volume and tone control, automatic stop on turn-table. Plays 10 or 12 in. records with lid closed. Fada Radio & Elec. Co., Inc., 30-20 Thomson Ave., L. L. City, N. Y.—RADIO TODAY.

# MORE SETS FOR

## LATEST MODELS WITH

### Admiral combo



★ Model 74-M5, AC superheterodyne with slide-a-way automatic record changer, has a 5-tube receiver. Plays twelve 10 in. and ten 12 in. records. Lightweight tone arm with life-time needle. Heavy-duty constant speed phono motor. Aeroscope antenna. Broadcast range, 545 to 1630 kc. Dynamic speaker. Walnut cabinet. Compartment for record albums. \$79.95. Continental Radio & Telev. Corp., 3800 W. Cortland St., Chicago, Ill.—RADIO TODAY.

### Motorola phono-radio



★ An automatic combination, 81F21, featuring the "Roll-A-Way" drawer with "Feather Touch" ball bearing gliders. Automatic record changer. 3-dimension Vita-Tone claims depth, brilliance and perspective to the vocal and musical tones. 2-bands, shortwave and standard BC. Push-button and manual tuning. Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill.—RADIO TODAY.

RCA Victrola model V-225 features the new "magic brain" record changing mechanism which plays both sides of 15 records without turning them over. Nine tube receiver, bandsread tuning. Walnut or mahogany Chippendale cabinet.



# FALL PROFITS

## EXTRA SELLING FEATURES

### 1942 "Stratoliner"



★ Sonora presents a molded plastic set with 5-tubes, AC-DC superhet circuit. Built-in Sonorascope loop, slide-rule dial, dynamic speaker, A.V.C. Cabinet available in 3 colors—ivory, walnut or pastel-green. 10 $\frac{5}{8}$  x 6 $\frac{1}{4}$  x 7 in. Sonora Radio & Telev. Corp., 325 N. Hayne Ave., Chicago, Ill.—RADIO TODAY.

### Admiral automatic player



★ Automatic record changer has fewer parts and changes records in 6 $\frac{1}{2}$  seconds. New mechanism does not use slicing knives, and does not chip records. Plays 12 ten inch, or 10 twelve inch records. Lifetime needle and low pressure pickup. AC motor and three tube amplifier with bass compensation. Dynamic speaker. Walnut cabinet is 16 $\frac{1}{4}$  x 10 $\frac{3}{4}$  x 15 deep. Model 4209-A3. List \$37.95. Continental Radio & Telev. Co., 3800 Cortland St., Chicago, Ill.—RADIO TODAY.

### Westinghouse console combo



★ AC combination with ornamental grille concealing slide-out

record changer. Walnut break-front cabinet. 2 bands, standard and foreign spread. 12 in. dustproof dynamic speaker. Crystal pickup with long-life sapphire needle. Plays twelve 10 in. or ten 12 in. records. Phono-telev-FM jack. Inclosed loop antenna. WR-42X7, \$89.95. Westinghouse Elec. Supply Co., 150 Varick St., New York, N. Y.—RADIO TODAY.

### Philco Transitone compact



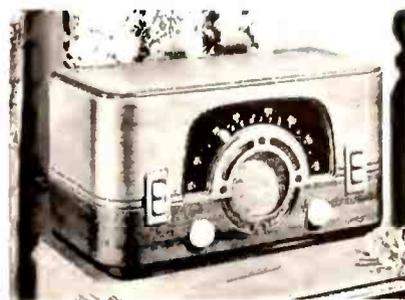
★ Table model, PT-7, housed in walnut cabinet contains a 5-tube, AC-DC superheterodyne receiver. 6 in. oval electro dynamic speaker, built-in loop aerial. Beam power amplification. 3-color illuminated horizontal dial. Broadcast range up to 1600 kc. 7 $\frac{3}{4}$  in. high, 12 $\frac{1}{2}$  in. wide and 6 $\frac{1}{2}$  in. deep. \$19.50. Philco Corp., Tioga & C Sts., Philadelphia, Pa.—RADIO TODAY.

### Crosley combo



★ Radio-phono table model 52TP with American & full-foreign reception (6 to 15 mc & 550 to 1600 kc). AC superhet circuit, electro-dynamic speaker. Airplane type illuminated golden dial. Record player has crystal pick-up. Plays records up to 12 in. with lid down. Separate phono-radio switch. Sliced walnut veneer cabinet. Crosley Corp., 1329 Arlington St., Cincinnati, Ohio—RADIO TODAY.

### Zenith compact



★ No. 6D630, one of the new Consol-Tone radios with the Radiorgan tone control feature. 3-gang condenser, Wavemagnet, 6 tubes, 4 push buttons. Lists at \$26.95. Zenith Radio Corp., 6001 W. Dickens Ave., Chicago, Ill.—RADIO TODAY.

### Olympic PT-51



★ A 5-tube superhet 3-way portable. 5 in. P.M. dynamic speaker. Standard broadcast and state police, 540-1650 kc. Beam power output, built-in extra sensitive loop. Closed-front cabinet with slide-in door, lock and key. British tan simulated leather, tan inside panel. Cowhide handle. \$29.95. Hamilton Radio Corp., 142 W. 26th St., New York, N. Y.—RADIO TODAY.

### Emerson combo



★ Model 437 automatic phono-radio, priced \$69.95, is a 7-tube AC superhet with 540 to 1630 kc. tuning range. 6 $\frac{1}{2}$  in. dynamic speaker, inclosed super loop, R.F. noise reducing amplifier. Automatic record changer plays 10 and 12 in. records mixed. Crystal pickup, self-starting constant speed motor. Walnut cabinet. Emerson Radio & Phono. Corp., 111 8th Ave., New York, N. Y.—RADIO TODAY.



\* A mahogany molded plastic set, L-621, with double grille treatment. An AC-DC six tube receiver. It contains 2 bands, offering international shortwave and having 2 built-in Deanscopes for long and shortwave reception. 5 in. dynamic speaker. Illuminated horizontal dial. General Elec. Co., 1285 Boston Ave., Bridgeport, Conn.—Radio Today.

## Emerson superhet



\* Emerson 6-tube AC-DC set, model 413, with tuning range of 540 to 1630 kc. and short-wave 25-31 meters. 6 in. dynamic speaker. Inclined super loop. A.V.C. illuminated sliderule dial. Handle cabinet in walnut and contrasting darker toned grille and base \$19.95. Emerson Radio & Photo. Corp., 111 8th Ave., New York, N. Y.—Radio Today.

## Fada WP102



\* A wireless record player housed in a walnut wood cabinet has constant speed self-starting AC phono motor and crystal pickup. Features are jeweled pilot light on front panel, volume and tone control, automatic stop on intractable. Plays 10 or 12 in. records with lid closed. Fada Radio & Elec. Co., Inc. 36-20 Thousen Ave., L. I. City, N. Y.—Radio Today.

# MORE SETS FOR FALL PROFITS

## LATEST MODELS WITH EXTRA SELLING FEATURES

## Admiral combo



\* Model 74-M5, AC superheterodyne with slide-away automatic record changer, has a 5-tube receiver. Plays twelve 10 in. and ten 12 in. records. Lightweight tone arm with lifetime needle. Heavy-duty constant speed phono motor. Aerospere antenna. Broadcast range, 545 to 1630 kc. Dynamic speaker. Walnut cabinet. Compartment for record albums. \$79.95. Continental Radio & Telev. Corp., 2800 W. Cortland St., Chicago, Ill.—Radio Today.

## Metrolite phono-radio



\* An automatic combination, \$121.21, featuring the "Roll-A-Way" drawer with "Feather Touch" ball bearing gliders. Automatic record changer. 3-dimension Vita-Tone claims depth, brilliance and perspective to the vocal and musical tones. 2 bands, shortwave and standard BC. Push-button and manual tuning. Galvin Mfg. Corp. 454 Augusta Blvd., Chicago, Ill.—Radio Today.

RCA Victrola model V-225 features the new "magic brain" record changing mechanism which plays both sides of 15 records without turning them over. Nine tube receiver, bandspread tuning. Walnut or mahogany Chippendale cabinet.



## 1942 "Stratoliner"



\* Sonora presents remodeled plastic set with 5-tubes, AC-DC superhet circuit. Built-in Sonoscope loop, slide-rule dial, dynamic speaker. A.V.C. Cabinet available in 3 colors—ivory, walnut or pastel-green. 10 1/2 x 6 1/2 x 7 1/2 in. Sonora Radio & Telev. Corp., 225 N. Haynes Ave., Chicago, Ill.—Radio Today.

## Admiral automatic player



\* Automatic record changer has fewer parts and changes records in 6 1/2 seconds. New mechanism does not use slicer knives, and does not chip records. Plays 15 ten inch, or 10 twelve inch records. Lifetime needle and low pressure pickup. AC motor and three tube amplifier with bass compensation. Dynamic speaker. Walnut cabinet is 15 1/2 x 10 1/2 x 15 deep. Model 429-A2. List \$37.95. Continental Radio & Telev. Co., 3800 Cortland St., Chicago, Ill.—Radio Today.

## Westinghouse console combo



\* An combination with ornamental grille concealing slide-out

record changer. Walnut breast-front cabinet. 2 bands, standard and foreign spread. 12 in. dustproof dynamic speaker. Crystal pickup with long-life sapphire needle. Plays twelve 10 in. or ten 12 in. records. Phonotele-PM Jack. Inclined loop antenna. WR-23X7, \$89.95. Westinghouse Electric Supply Co., 150 Varick St., New York, N. Y.—Radio Today.

## Philco Transifane compact



\* Table model, PT-7, housed in walnut cabinet contains a 5-tube, AC-DC superheterodyne receiver. 6 in. oval electro dynamic speaker, built-in loop aerial. Beam power amplification. 3-color illuminated horizontal dial. Broadcast range up to 1630 kc. 7 1/2 in. high, 12 1/2 in. wide and 6 1/2 in. deep. \$19.50. Philco Corp., Tlaga & C Sts., Philadelphia, Pa.—Radio Today.

## Crosley combo



\* Radio-phonon table model 527P with American & foreign reception (6 to 15 mc. & 550 to 1630 kc). AC superhet circuit, electrodynamic speaker, large crystal illuminated golden dial. Record player has crystal pick-up. Plays records up to 12 in. with lid down. Separate phono-radio switch. Sliced walnut veneer cabinet. Crosley Corp., 1223 Avilacon St., Cincinnati, Ohio—Radio Today.

## Zenith compact



\* No. 4D636, one of the new Conso-Tone radios, with the Radi-organ tone control feature, 3-gang condenser, Wavemagnet, 6 tubes, 4 push buttons. Lists at \$38.50. Zenith Radio Corp., 6001 W. Dickman Ave., Chicago, Ill.—Radio Today.

## Olympic PT-51



\* A 5-tube superhet 3-way portable 5 in. P.M. dynamic speaker. Standard broadcast and state police, 540-1630 kc. Beam power output, built-in extra sensitive loop. Closed-front cabinet with slide-in door, lock and key, British ton simulated leather, tan inside panel. Cowhide handle. \$24.95. Hamilton Radio Corp., 142 W. 54th St., New York, N. Y.—Radio Today.

## Emerson combo



\* Model 437 automatic phono-radio, priced \$63.95, is a 7-tube AC superhet with 540 to 1630 kc. tuning range. 6 1/2 in. dynamic speaker. Inclined super loop. R.F. noise reducing amplifier. Automatic record changer plays 10 and 12 in. records mixed. Crystal pickup, self-starting constant speed motor. Walnut cabinet. Emerson Radio & Phonon Corp., 131 8th Ave., New York, N. Y.—Radio Today.

# WHEN JOBBERS' MEN SELL TEST EQUIPMENT

The most important point in any sales campaign is the establishment of initial contact with the prospective customer, and this contact may be made in several different ways. Replies to direct-mail advertising form a most valuable source of customer contact, if they are properly followed. This follow-up should be in the form of a personal contact, if the distributor travels men through the territory, or by letter, individually written and so designed that it will answer the customer's request in the most direct and personal manner possible.

## TAKE STOCK

Prospective customers for radio test equipment may also be secured by direct contact, if the distributor employs traveling salesmen. In this instance, it will be found that the salesman is regularly calling on prospective customers, and supplying their requirements for replacement parts and other small items. The distributor should teach his salesman to take stock of the test equipment employed by the various dealers on his regular calls. When this has been done, it is a simple matter to decide when one of his dealers has test equipment which is obsolete and should be replaced, or whether there are one or more items of test equipment which are necessary to complete the dealer's service laboratory. After determina-

tion of the instruments in which the prospect should be interested, the salesman should bring to the dealer's attention his normal requirements, and illustrate to him both from a profit standpoint and from the standpoint of saving time, the fact that ample modern test equipment is absolutely necessary.

Two other extremely useful methods of obtaining prospective customers are the mailing of distributors' catalogs and the mailing of bulletins or fliers directly to a selected list of radio servicemen in the distributor's territory.

The second step in a successful sales campaign is focusing of the prospect's interest on the instrument or group of instruments most adaptable to his requirements. At this point, a technical knowledge of radio servicing, or at least a familiarity with its requirements, are invaluable to the salesman, as it will enable him not only to advise judiciously, but also to give a personal demonstration of any equipment.

In many distributing organizations it will be found that some of the salesmen are not technically fitted to demonstrate equipment, due to lack of technical training or unfamiliarity with modern servicing requirements with respect to test instruments. Many organizations of this type have found it profitable to use one man,

who specializes in demonstrations and sales of test equipment, to assist the entire personnel in this feature of their merchandising program. This permits the most economical use of the technician's time, since the regular salesmen secure the leads and develop initial interest, enabling the technician to close the sale on his first demonstration.

Many successful organizations require their salesmen to carry a sample test instrument at all times, so

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## Test Instruments Now More Important Than Ever Because They

Take place of a man in present shortage

Speed up diagnosis

Enable one serviceman to do work of two

Help carry present rush of repair business

Enable serviceman to earn more money

---

they may place it in their customers' hands whenever they make a call. The effect on the dealer is very similar to that of a man driving a new car, wherein he compares the ease and operation of it with the older model which he is using at the present time. It has been found that this method is as effective in selling test equipment as it is for selling automobiles.

Salesmen also should make an especial effort to provide their customers with the manufacturers' technical literature, and encourage the customers to attend service meetings wherever equipment is demonstrated.

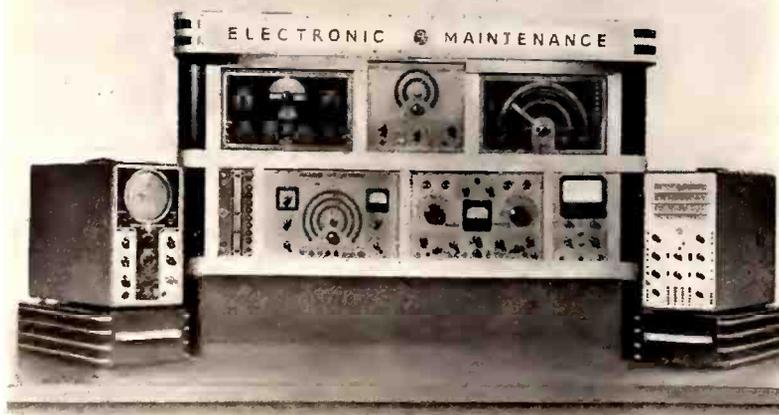
## SATISFIED USERS

One of the most important functions of the distributor's salesman is often overlooked after the sale is made. One of the greatest sales aids obtainable is the recommendation of a certain instrument by a fellow serviceman, and this is often hard to obtain unless he is familiar with the proper operation and use of his equipment.

The distributor's salesman should therefore see that his customers are supplied with the latest, authoritative instructions and information on the equipment which the dealer purchases, so that he will derive maximum benefits and become a booster for the distributor and his instrument line.

---

## Instrument Bench for Testing Electronic Apparatus



With many parts distributors taking new interest in industrial electronic equipment and parts, as a future market for regional distribution, RCA Mfg. Co., Camden, N. J., has introduced this "electronic maintenance bench," assembling all test equipment likely to be needed for industrial electronic apparatus.

## New Sales Head



"Win" Hartford is the new sales manager for Webster-Chicago. He previously held the same post with Thordarson, and is a well known radio sales exec, vice-chairman of Sales Managers' Club, Western Division.

## Distributors Get Admiral Line

From Continental Radio & Television Corp., 3800 Cortland St., Chicago, comes news of new distributor appointments for Admiral products. These include: York Supply Co., 531 E. 3rd St., Dayton, Ohio; Ferguson Co., 10th and Broadway, Paducah, Ky.; Lyle-Crenshaw Co., Inc., 448 N. Watkins, Memphis; L & K Electric Co., 72 State St., Binghamton, N. Y.; Wholesale Appliance Co., 201 Rock St., Little Rock, Ark.; Texas Wholesalers, 2105 Commerce St., Dallas, Tex.; R. P. McDavid Co., Inc., 2104 First Ave., Birmingham, Ala.; South Texas Appliance Corp., 605-07 S. Flores St., San Antonio, Tex.; City Electric Co., Inc., 518 S. Clinton St., Syracuse, N. Y., and Griffith Distributing Corp., 204 S. Pennsylvania St., Indianapolis, Ind.

The entire Peaslee-Gaulbert Corp., with branches in five cities, has also been appointed Admiral distributors. The Peaslee-Gaulbert house are at 15th and Lytle Streets, Louisville, Ky.

(main office), 603 Ashley St., Tampa, Fla.; 2301 Main St., Jacksonville, Fla.; 152 N. E. Eleventh St., Miami, Fla.; and 431 Marietta, Atlanta, Ga.

## Crosley Ready for New Sales Peaks

In the production program announced by the Crosley Corp. for the coming year, there will be an increase in radios, refrigerators and other appliances, "in spite of the fact that a sizable part of the company's facilities are now devoted to production for national defense purposes."

It was pointed out by two Crosley officials, R. C. Cosgrove, vice-president and general manager, and R. I. Petrie, vice-president and general sales manager, that the company was exceptionally fortunate in having ample manufacturing facilities to cope with both domestic and government needs. Key-note for the new radio-selling season is "Crosley for 1942 Season—Double Last Year."

## Howard Exec Reports Interest in FM

"It will be a big year for FM," declares Howard C. Briggs, vice-president of Howard Radio Co., 1731 Belmont Ave., Chicago, who is now on a tour through the middle western states introducing the 1942 Howard FM sets to dealers and distributors.

The Howard executive said that in areas where FM stations are broadcasting, the company has already sold thousands of FM receivers. The firm will be ready with new FM units, as well as its new line of recorders, combinations, standard broadcast and communications receivers.

## Shefler for Turner

H. George Shefler, 2360 E. Moreland, Phoenix, Ariz., has been named by The Turner Co., Cedar Rapids, Iowa, as the sales representative for Turner of microphones and microphone equipment, and the new push-pull vibrator. Territory to be covered by Mr. Shefler will include Arizona, New Mexico and El Paso, Tex.

## Watch Your Home Record Biz Whiz—with the MOST COMPLETE LINE!

FIBRA Cutting Needles, Sapphire, Shadowgraph, Automatic and Pin Point Playbacks.

**FIBRA Development Co.**

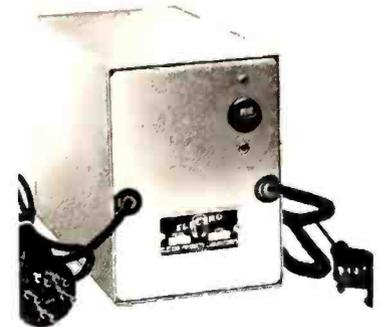
1600 Broadway, New York City

Largest Manufacturers of CACTUS Needles in the World

# Foolproof!

Completely Assembled!  
New Vibrator  
Power Supply!

*No Experimenting!*



Model  
2500  
Net Price  
\$12.00  
F.O.B.  
Chicago

**Distributors:** Now you can buy a foolproof, completely assembled Electro-Synchro-Power supply—there's no experimenting to do, it's all ready to operate—READ THE OCTOBER ISSUE OF POPULAR MECHANICS, Radio Section (on the news stands September 1st). The unit comes complete with plug, shielded cables and battery clips. There are no filter parts to buy, assemble or adjust. Models available NOW with output up to 60 watts and 300 volts. Electro-Synchro-Power supply is precision engineered to give dependable low cost high voltage direct current from a 6 volt storage battery.

Ideal for P.A., small transmitter and other portable uses.

Write today for complete details and prices — immediate shipments on most models.

Mfgs. of a Complete Line of Battery Eliminators

**Electro**  
ELECTRICAL AND RADIO EQUIPMENT

**PRODUCTS LABORATORIES**

549 WEST RANDOLPH STREET  
CHICAGO, ILLINOIS

# SERVICING DETECTORS

## PART 1—Operation Characteristics of Diode Detectors. Effects of Audio AC Loads on the De-Modulation Capabilities.

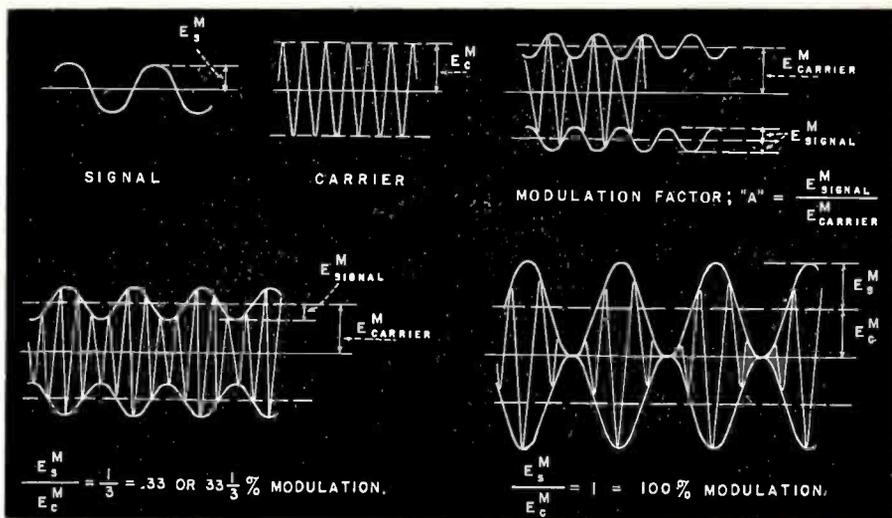


Fig. 1—Single-frequency sine-wave signal is combined with carrier to form modulated complex wave. Modulation under 50 per cent is not adequate for testing distortion due to AC shunting in the detector circuit. See text.

The operation of detection is used in every type of radio receiver. Detectors have developed along with radio from the coherer to the frequency detector used in FM sets. A great deal of the service work done on today's sets is in connection with detector systems. Many alignment problems are handled by observing current or voltage changes in the detector circuit. Much of the audio distortion originates here, and in the majority of sets, the volume control which is a source of many service jobs, is in the second detector circuit. Most receivers develop the AVC voltage in the second detector. From this partial list of the actions of second detectors, it is apparent that a thorough understanding of the types, functions, and tests is of real importance.

### FUNDAMENTAL JOB

The number one job of a detector is to separate the music or speech signal from the carrier signal. Thus, it is the reverse of modulation. To understand what is necessary to de-modulate two signals, let's find out what the transmitter did in combining the RF carrier and the audio signal.

Several methods of amplitude modulation are employed by broadcasters, plate modulation being one of the more common types. The RF carrier voltage developed by other stages of the transmitter is fed to the Class C stage which is to be modulated. The power output of this stage is proportional to the square of the instantaneous plate voltage on the tube. The audio signal which is to modulate the RF carrier is amplified and is introduced in series with the high voltage supply to the RF amplifier. The plate voltage of the RF amplifier will then be the algebraic combination of the DC power supply

and the AC signal voltage. The modulation is thus a process of varying the amplitude, and consequently the power, of the RF carrier in accordance with the audio signal.

### SIDE BANDS

A mathematical analysis of modulation will show, for a single sinusoidal modulating tone, that the RF output wave will have three components, one of which is the RF carrier voltage with its original amplitude, and two other components, with half the carrier amplitude times the modulation factor. One of these two components has a

frequency of the carrier *plus* the frequency of the modulating signal, and the other component has a frequency of the carrier *minus* the modulating signal frequency. The modulating factor is defined as the ratio of the maximum deviation of the modulated wave envelope from the un-modulated wave, to the un-modulated wave. This statement becomes clear by referring to Fig. 1. The voltage measurements on the signal and carrier waves are peak values. For sine waves, the RMS value is 0.707 of the peak.

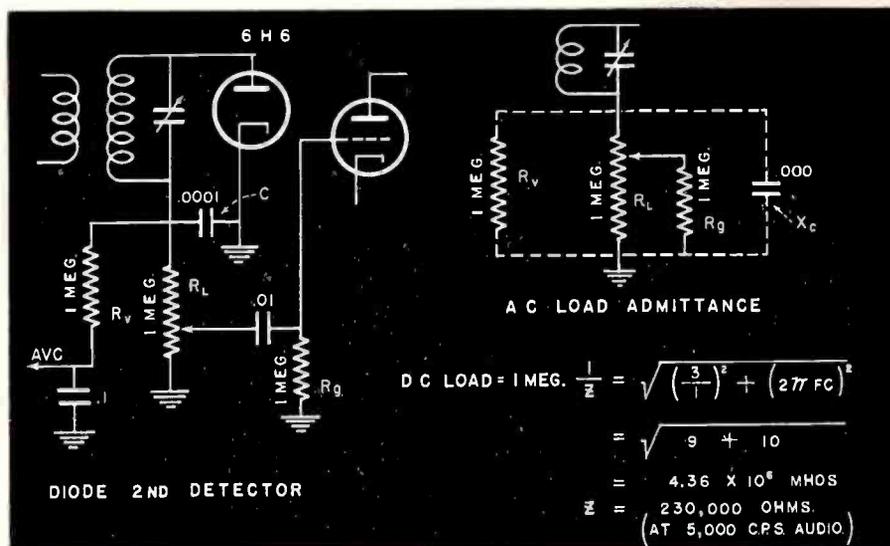
The power in a modulated wave is equal to the power of the carrier plus the power in the side bands. The side band power is proportional to the square of the modulation factor and has a maximum value at 100% modulation, of one-half of the un-modulated carrier power. Thus, a station delivering 50 kw. at 100% modulation has a carrier strength of 33 1/3 kw, and the other 16 2/3 kw is in the side bands. Since the side bands contain the only information, it may be seen that a high percentage of modulation is desirable.

### DIODE DETECTORS

The simplest and most common detector, or demodulator is the diode rectifier. It performs the job of recovering the information transmitted in the side bands by rectifying the complete signal and developing a current which is proportional to the original modulating signal. The carrier and its side-band components are by-passed across the load resistor by a capacitor small enough to prevent the high frequency audio signals developed across the resistor from being shunted out.

Two fundamental types of operation for diodes depend upon the amplitude

Fig. 2—Typical diode second detector and equivalent circuit for the AC audio signal shown at right. Calculations show that the AC shunting reduces the effective load for the tube by about 75%. Distortion starts at about 40% modulation.



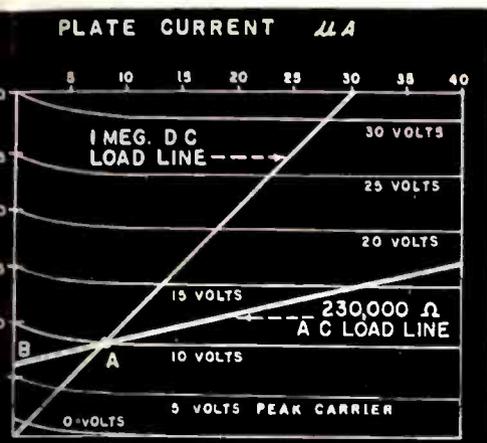


Fig. 3—Dynamic characteristic for 6H6 diode. AC load causes plate current to cut-off at carriers below about 6 volts peak.

of the signal applied to the circuit. Square-law detection takes place when the signal amplitude is small and the plate current of the diode is confined to the curved portion of the characteristic near the cut-off point. The "square law" refers to the portion of the tube's current-voltage curve through which the current increases as the square of the applied voltage. Thus if three voltage readings were 1, 2, and 3, the corresponding current values would be 1, 4, and 9.

Due to the curved section of the characteristic, distortion results. If the operation is perfectly "square-law," the distortion will be the introduction of a second harmonic which can be as great as 25% of the fundamental audio signal.

#### LINEAR DETECTION

Linear operation, which is the desired detection characteristic, is approximated for large input signal amplitudes. The output voltage across the load resistance is practically proportional to the input carrier voltage. This linear operation for ordinary diode detectors takes place on carriers with a 10-volt or higher peak value. Power detection, as this type of operation is called is usually realized in broadcast sets.

#### EFFECTS OF MODULATION

So far we have discussed the diode rectifier under the conditions of a constant carrier voltage. When the carrier is modulated, the instantaneous carrier amplitude is varied at the frequency of the audio signal. It can be seen from Fig. 1 that the greater the percentage of modulation, the lower the instantaneous carrier amplitude falls during portions of the modulating cycle. Thus for 100% modulation, the carrier is actually reduced to zero amplitude once each modulating cycle. It is obvious that the type of diode operation varies from linear on the maximum carrier peaks to "square law" on the very low carrier peaks encountered in high percentage modulation. This shifting from one type of operation to the other introduces some distortion at high levels of modulation.

Another serious cause of distortion in diode detectors is the shunting ef-

fect of the (1) audio amplifier grid resistance, (2) the AVC network, (3) "magic eye" circuit, (4) and the RF by-pass capacitors across the diode load resistor. These circuit elements do not affect the DC load to the diode circuit, but are in parallel with the load resistor when an audio signal is present.

Fig. 2 shows the circuit for a typical diode second detector with the various load elements. With a constant carrier input (no modulation) the only load element in the output circuit is the resistance  $R_L$ . The capacitor  $C$  is not a part of the load even though it is in parallel with  $R_L$  because, to the quantity we are interested in, the voltage across  $R_L$ , the impedance of  $C$  is infinite to the DC present with constant carrier amplitude.

#### 25% OF DC LOAD

As soon as the carrier is modulated, an alternating signal will be present across  $R_L$ . The other components shown at the right of Fig. 2 are effectively in parallel with  $R_L$  for audio currents because of the negligible impedance of the AVC by-pass and the audio coupling capacitors. The load on the diode is thus reduced from its DC value of  $R_L = 1$  meg. to the parallel combination of  $R_V$ ,  $R_g$ ,  $R_L$  and  $X_c$ . The calculation for a typical circuit is shown in the diagram and applies when the volume control is set at maximum. The shunting effect of  $R_g$  is most serious at the maximum volume level and is negligible if the control is at about one-fifth or less than maximum. The shunting due to the capacitor  $C$  will increase with the audio frequency.

The AC load at 5000 cycles for the diode is 230,000 ohms, roughly one-fourth of the original DC load of 1 meg. The effect of this new load impedance might at first be thought to be only a small reduction in the output delivered by the circuit. The effect is much more serious because the result is high distortion on high levels

## DETECTOR FACTS

1. Square-law diode detectors become "linear" detectors on signals at approximately 10 volts peak and over.
2. Diode load for audio currents is less than DC load. This shunting introduces distortion at high modulation levels.

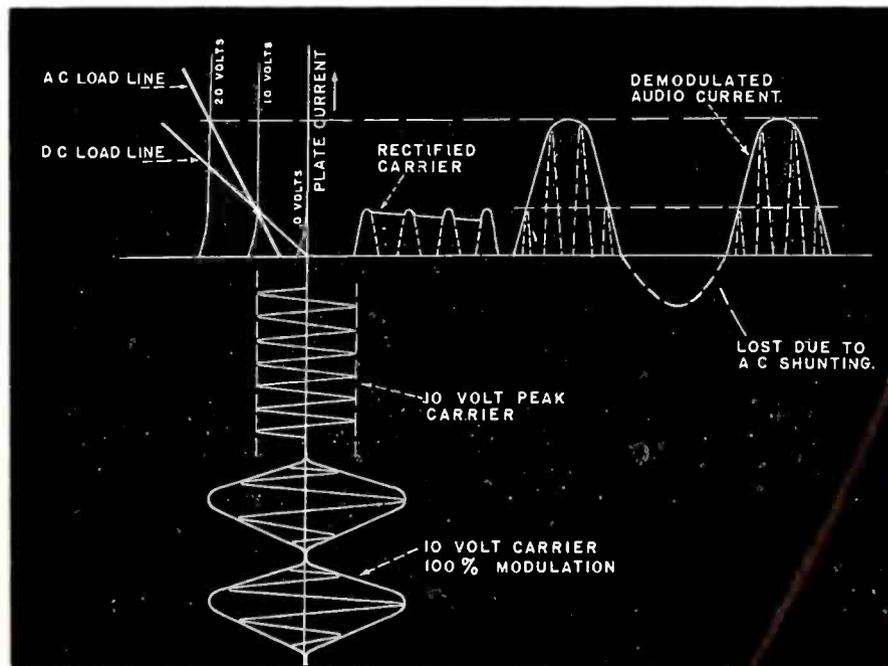
of modulation. Examination of Fig. 3 will help to show what happens.

Fig. 3 is the dynamic characteristic of a single 6H6 section. Assuming a 10-volt peak carrier and the 1 meg. DC load, the DC developed by the circuit is about —8 volts. This is determined by the intersection of the load line and the 10-volt carrier line at A. If the carrier is now modulated at say 100%, point A would shift up along the 1 meg. load line to the 20-volt peak carrier line and down to the 0-volt line, if the load to the diode circuit remained at 1 meg. during modulation. However, the load does change, and a new load line must be constructed. In the case being discussed, the AC load at 5000 cps is 230,000 ohms. This load line is constructed so as to pass through A since the same 10-volt peak carrier is assumed. The new AC load line does not pass through zero as does the DC 1 meg. line, because tube conditions must return to point A when modulation stops.

#### LIMITS DE-MODULATION

It is obvious from the slope of the AC load line that cut-off of plate current occurs at approximately —6 volts. This means that modulation over 40% will produce distortion. In other words, the carrier amplitude can only be modulated from 6 volts to 14 volts, or 40% (Continued on page 33)

Fig. 4—Distortion results during the portion of the audio cycle which reduces the instantaneous carrier voltage below about 6 volts. This distortion is most severe at maximum settings of the volume control and at the higher audio frequencies.



## FAITHFUL SERVICING GETS BLACK EYE

(Continued from page 17)

out to find evidence of bad faith, and misinterpret ordinary business practices to this end, it will always be possible to dig up similar evidence of shady dealing from plumbers, doctors, merchants, dentists and other groups in any community. But such reports have no true relation to the inherent good faith of the classes so misrepresented.

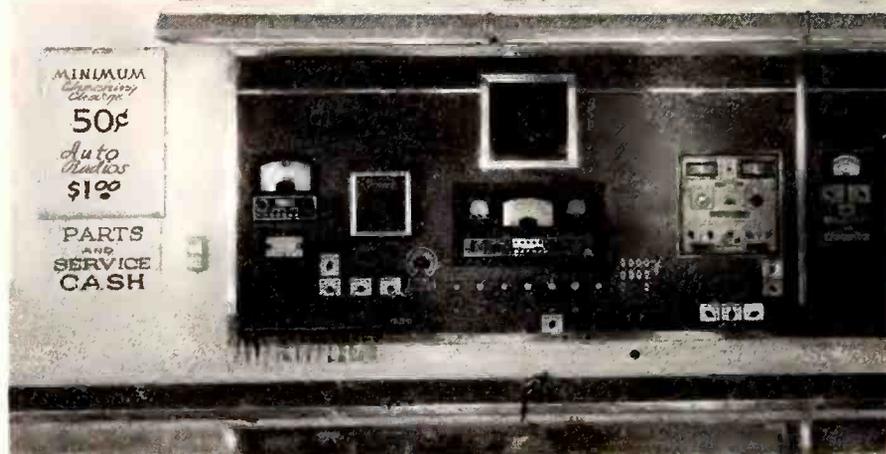
### INTERPRET WORK TO CUSTOMERS

Out of the survey conducted by the *Readers Digest*, however, come some excellent lessons for responsible servicemen in methods of dealing with customers, so that any appearance of unethical conduct may be avoided in the minds of laymen. Customers do not understand the complicated processes through which servicemen arrive at their diagnosis, and so are likely to misunderstand even the most intelligent safeguarding of the customer's interests.

An unforgivable fault reported from some servicemen in the *Readers Digest* survey was that of charging for parts not actually put into the sets, or for services not rendered. Certainly there is no excuse for methods of this kind, and no necessity. Above all, it isn't necessary to pad the bill with phoney charges, if the serviceman will explain the just and reasonable charges that should be made for the work he

"Rube Goldberg"—says *Readers Digest*

"Essential scientific equipment"—says *RADIO TODAY*



These sensitive measuring instruments locate weak and noisy tubes, test condensers, resistors, and transformers causing buzzing and crackling sounds, adjust tuning to within 1/2 of 1% of perfect, and trace signals of a few millionths of a volt to insure the performance of your set.

has done. For example, if you realign a set and do not replace any parts, it will be absurd to try to justify the charge with a bill for "new IF transformers." It will be equally absurd to bill the customer "\$3 for turning four screws." Itemize your bill for real services and real parts.

In the case of the re-alignment job, your bill should read something like this: "Adjusting intermediate ampli-

fiers on XYZ model 900. Bandpass 9 kc., gain 2500 overall.—\$3." Why the technical jargon? These terms are the basis for your charge and they are the reason why you should get \$3.

Sure—maybe somebody down the street will do a job for 50c—by peaking 'em for the loudest hiss, but he can't guarantee the band-width and gain, which spell the performance for your customer.

### HANDLING DISCARDED PARTS

The problem of what to do with the old parts which you have replaced is also very important. Make sure that the customer sees the old discarded part or tube which you take out. If you can point out the new one without tearing the set apart, so much the better. After showing the old part, clip the leads off, or otherwise deform it so that nobody can use it again. Carefully identify all parts and tubes on your bill, and state the period of guarantee.

The way to handle sets brought in whose tubes have hopped out and grid-leads fallen off, is to classify them under your "minimum service charge." This amount, be it 50c, \$1.00 or \$1.50, should be displayed as conspicuously as possible where the customer can see it. This figure should cover all such little jobs, and whether it applies to making cost estimates or not, is a matter of local custom.

The newly-enlightened public may also look questioningly at your testing equipment which it has now learned to call "Rube Goldberg" apparatus, from Mr. Riis' article. Yet every fair-minded customer will realize that through the use of similar expensive test equipment, doctors, dentists, chemists, aviators, mariners, and automobile men all depend on the operation of complicated instruments and mechanisms—"Goldberg contraptions," to make our Twentieth Century world function.

### AND TUBE TESTERS

Tube testers were especially ridiculed in the *Digest* because of the variety of answers that can be obtained by pressing different buttons. (You

## QUALITY PAYS — OR WHY MR. VAN DROOL DROPPED HIS SPOON IN THE SOUP

It happened during the dinner hour at the Van Drool mansion.

Rich Mr. Van Drool was sipping soup in perfect rhythm to the music of his super de luxe radio console. Suddenly came a noise like a firecracker as a midget condenser—which serviceman Wilbert Fixit had installed just the day before—exploded. Mr. Van Drool jumped, dropped his spoon and swore. What made him so mad, he said afterwards, was not that he dropped his spoon in the soup, but that he burned his fingers getting it out.

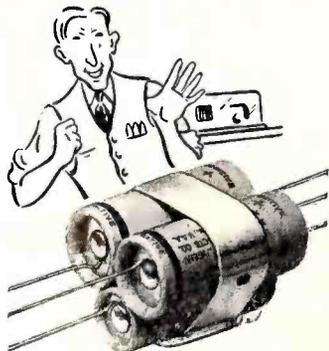
That experience taught Serviceman Fixit a lesson. No more midget dry electrolytics for him. He'd use big, full-sized replacements and play safe. One day, however, his jobber gave Wilbert a sample Sprague Atom and some literature about it.

"Guaranteed not to explode!" snorted Wilbert as he read the literature. "Phoooy!"

But Wilbert was a methodical man. He put the Atom under test. No matter what he did, it wouldn't explode. Although the condenser was only rated at 450 Volts, he had to smack it with over 750 volts before it even broke down. Then Wilbert bought a dozen more Sprague Atoms and found they tested equally good.

While he was testing them, Mr. Van Drool's chauffeur dragged one of the upstairs radios into the shop.

"The boss wants this fixed in an hour,"



he explained. "And no foolin'. He says it's your last chance."

"Lordy," groaned Wilbert, after examining the set. "A three-section condenser gone bad. It'll take a week to get one."

Then he thought of his Sprague Atoms and the ST mounting strap the jobber had supplied with them. He could take two 8 mfd. 350 V. Atoms and a 25 mfd. 25 V. Atom, strap 'em together—and

the job would be done. It was the only thing Wilbert could do, so Wilbert did it.

To his surprise the three Atoms when strapped together were actually smaller than the original three-section condenser. Also, his total net cost on the Atoms was only 96c. A duplicate unit would cost \$1.20.

What's more, the Atoms stayed put.

Mr. Van Drool was more than pleased—and that meant Wilbert was pleased, too. Today he uses Atoms for practically all of his replacements, big or little.

"I save 'steen days by using Atoms," is the way he puts it. "I save money, I save shoe leather, I save time, I save my good disposition—and I save customers. Best of all, Mr. Van Drool will never drop his spoon in the soup again."

Drooly yours,

**SPRAGUE PRODUCTS CO.**  
NORTH ADAMS, MASS.

can get a lot of different answers by pressing the wrong buttons in an automatic elevator, too!) After all, the modern tube tester takes care of over 500 different types of tubes in 6 or 7 sockets and with 4 or 5 adjustments, which speaks pretty well for the ingenuity of the tester. (In Mr. Riis' saga of the serviceman, one of the alleged brethren claimed he did not use a tube-tester, but instead "a voltmeter and a few other things." It is hard to tell what the "few other things" were—perhaps a Ouiji board—but if dynamic mutual conductance can be measured with a voltmeter alone, there are a lot of people who would like to see it done.)

Another reported unfairness was the use of a 10-cent part as the only outlay for repair in job that grossed the serviceman \$3. The impression given the layman seems to be that any 10-cent part, knob, resistor, capacitor, dial light, etc., can be placed anywhere in the set and satisfactory performance obtained. The druggist doesn't get his fee for a few cents worth of chemicals that go into the prescription—he gets paid for skilled compounding and for knowing how much of what should be used. And that is what the radioman's fee is for.

Anybody who thinks that faulty radio parts identify themselves by waving a flag and giving a complete version of what caused their failure is sadly mistaken. Faults and troubles have to be diligently hunted out.

#### DO HONEST JOB, GET FAIR PRICE

To sum up the whole situation, do an honest job, sell the things that are needed, and get a fair price for your work. Your weapons against the charge of being a "gyp" are these: (1) Your reputation as a local business man. (2) Your membership in a local service organization which guarantees the work of its members. (3) Your methods of doing business—itemized bills, guaranteed workmanship, etc.

It would be foolish to state that there are no "chiselers" in radio or any other particular business. However, RADIO TODAY, feels certain that the percentage in the radio service field is very, very much less than the percentage arrived at in the article under discussion.

#### NEED FOR MINIMUM SERVICE FEE

Editor Radio Today:

I think the most important thing now is to drive home to servicemen the necessity for having a minimum service fee of, say, somewhere between one dollar and two dollars.

If a radio set is *not* working when a customer takes it into a serviceman and is *working* when it comes out—then that customer should not object to paying a dollar or two even though the serviceman did nothing more than tighten a wire or push a tube back into the socket. Moreover, this should be regarded solely as a minimum service charge—just as a doctor's fee for an office visit is a minimum and the patient knows that he will have to pay extra for medicine or any further treatment that may be required.

The serviceman who wants to gyp his customers will still be able to gyp them. On the other hand, the mini-

mum service charge idea removes much of the necessity for the serviceman selling a customer something that is not needed in order to make a profit out of his business.

Another thing that should be very forcibly stressed is the fact that almost any radio set two years old or more is very likely to need service attention. Even though it hasn't stopped playing altogether, the chances are very high that a new tube or two, a realignment job, a new volume control or something of the sort, would work a very noticeable improvement in tonal quality, reception facilities and freedom from noise.

Harry P. Bridge

1324 Walnut St.  
Philadelphia, Pa.

#### SUGGESTS POSTING UP ARTICLE

Editor, Radio Today:

Regarding the *Readers Digest* article, I don't know what you plan for your August issue, but it appears that the following information would be helpful to servicemen.

Our representative in Minneapolis, Minn., the Heimann Company, has sent out letters to its accounts with the following suggestion:

"Because I am certain that the practices cited by the *Digest* are not the procedures in the better radio shops where an honest charge is made for an honest rendered service, and in order that your honest service customer can combat this type of propaganda, it is my suggestion that he take this

issue of *Readers Digest*, post it prominently in his window and feature it along with a card driving home this thought:

"WE KNOW ABOUT THIS PRACTICE—IN ITS PLACE WE OFFER HONEST SERVICE, HONESTLY CHARGED FOR, AT A FAIR PRICE, FOR A JOB WELL DONE."

Vinton K. Ulrich

Sales Manager  
Hytron Corporation  
Salem, Mass.

## SERVICING DETECTORS

(Continued from page 31)

before the minimum carrier peaks would be cut-off. This is usually the most serious distortion in detection. In the particular case cited, the worst conditions were used. At frequencies less than 5000 cycles, and volume control settings less than maximum, much less distortion of high percentage modulation would result.

Some compensated diode circuits employ a positive bias on the detector plate to shift the point A up or down the DC load line in relation to the strength of the carrier. By proper adjustment, the AC shunting effect may be made almost negligible.

Fig. 4 shows graphically how the two load lines act on an un-modulated carrier and on a modulated carrier.

In a future article, RADIO TODAY will cover the other types of detectors found in television, FM, and old sets.

## ELECTRONIC VIBRATORS



...The Industry's Standard  
for Mobile Amplifiers!

THE selection of *Electronic Vibrators* by the following major manufacturers of public address systems . . . over 95% of the industry . . . is sincere tribute to the high efficiency and unequalled dependability which *Electronic* builds into its product:

Barr Manufacturing Company  
Erwood Sound Equipment Company  
The Hallicrafters  
Knight  
Montgomery-Ward  
Rauland Corporation  
Sears-Roebuck  
Transformer Corporation of America  
Webster-Rauland Corporation  
And many others

Illustrated (at top) is the Type 490 Electronic Heavy-Duty Vibrator with which most amplifying systems are equipped. It is self-contained, precision-built for long, trouble-free operation . . . with accurate 60-cycle adjustment and easy "plug-in" servicing.

In addition to being the overwhelming first choice for commercial applications, *Electronic Vibrators* are widely used by the American Defense Forces . . . fully meeting the rigid tests and specifications of the U. S. Army, Navy and Coast Guard.

To assure maximum customer satisfaction, and save yourself time, trouble and money, insist on *Electronic Vibrators* in the amplifying equipment you sell! For further information address—



ELECTRONIC LABORATORIES, INC.  
INDIANAPOLIS, INDIANA

## BEST-SELLING RECORDS

Listed for **RADIO TODAY** in order of importance by **Alex A. Gettlin**, publisher of **Recordaid**.

DADDY—Sammy Kaye on Victor 27391.  
 MARA ELENA—Jimmy Dorsey on Decca 3698.  
 BLUE CHAMPAGNE—Jimmy Dorsey on Decca 3775.  
 GREEN EYES—Jimmy Dorsey on Decca 3698.  
 YES INDEED—Tommy Dorsey on Victor 27421.  
 YOURS—Jimmy Dorsey on Decca 3657.  
 HUT-SUT SONG—Freddie Martin on Bluebird 11147 and Horace Heidt on Columbia 36138.  
 INTERMEZZO—Wayne King on Victor 26659, and Charlie Spivak on Okeh 6120.  
 BOOGLIE WOOGIE PIGGY—Glenn Miller on Bluebird 11163.  
 IN APPLE BLOSSOM TIME—Andrews Sisters on Decca 3662.  
 THE THINGS I LOVE—Jimmy Dorsey on Decca 3737.  
 A ROSE AND A PRAYER—Jimmy Dorsey on Decca 3712.  
 JUST A LITTLE BIT SOUTH OF NORTH CAROLINA—Gene Krupa on Columbia 6130.  
 TIME WAS—Jimmy Dorsey on Decca 3859.  
 KISS THE BOYS GOODBYE—Bea Wain on Victor 27445 and Tommy Dorsey on Victor 27461.

## ALBUMS PAY OFF

(Continued from page 20)

cally grouped for effective display. For instance, there are many sets featuring Latin American music, and if you'll get together some guitars, travel folders, flashy scarfs, maps and pictures, you'll have a display splash of real value. Another example is a

group of albums of waltz music—you can show these along with mementos of Strauss, Viennese costumes, movie stills, etc.

10. If you are doing special promotion work on certain popular records while the same orchestras are playing local engagements, don't neglect the albums. Orchestra leaders often make announcements about "our latest recording" but nothing is said about full sets. Sometimes a group of blow-ups of the latest album cover can be used as stage decorative effects.

In conclusion, it must be said that in general there's a great deal of skill and resourcefulness going into the selection, production, presentation and styling of the new albums. Dealers should take advantage of it, and get the top profits from such merchandise.

## Record Reviews Prepared for Dealers

Reviews of current records, prepared by an expert and syndicated so that dealers may get them promptly and distribute them with their own imprints, are forthcoming from Frederick Kugel Co., 1233 Sixth Ave., New York City, makers of record file cases. They will be issued in 4-page folder form, monthly, to a single dealer in each area.

In the folders, the critical appraisals of the new records will be given by R. D. Darrell, a recognized musical authority who was the editor of *The*

*Steinway Review of Permanent Music*, after which the new publications will be patterned. Since the Kugel firm has become a national specialist in these syndicated reviews, it was pointed out that costs can be lowered far below what dealers pay if they produce the reviews privately.

## Opera Star Exclusive on Columbia Discs

Lily Pons, the opera star, will now make records exclusively for Columbia Recording Corp., according to announcements by CRC president Edward Wallerstein, who revealed that Miss Pons has signed a new contract for recordings to start this Fall. At least one album of the star's records will be made with the star's husband, Andre Kostelanetz.

Columbia's current emphasis on top operatic records is shown by the fact that the company's line-up of artists now includes, besides Miss Pons, Lotte Lehmann, Rise Stevens, Rene Maison, Bruna Castagna, Charles Kullman, Joseph Bonelli, Robert Weede, Suzanne Sten, Jan Kiepura, Salvatore Baccaloni, John Carter, Roland Hayes, Bidu Sayao, and Nelson Eddy.

## Ansley Dealers Plan Fall Stocks

In a carefully planned effort to help authorized dealers to get regular deliveries of radios during the coming months, the Ansley Radio Corp., 21-10 49th St., Long Island City, N. Y., is using an "Ansley Inventory Protection Plan" whereby the retailers specify their requirements ahead of time. The program was announced by president Arthur C. Ansley, under the general query, "Are You Ready for Business?"

Prices and specifications of the complete Dynaphone line, effective Sept. 1 this year, were released, and dealers were asked to indicate requirements (through December, 1941) by July 1. Because Ansley has a large selection of "special" finishes, and because it would be difficult for retailers to estimate the number of these needed, the company has agreed to match all orders for standard jobs, with an equal number of "special Dynaphones." This is done on the factory's own responsibility, and it is said that "thus the Ansley dealer has a double inventory assured for his Fall needs, yet he carries only half the responsibility."

## "Olympic" Name Goes to Hamilton Radio

The "Olympic" radio trade mark has been purchased by Hamilton Radio Corp., 142 W. 26th St., New York City, and the company's 3-way portables are now called "Champions of the Air." The trade mark was bought from American Bosch Radio Corp., according to an announcement by Hamilton vice-president P. L. Schoenen.

Hamilton has also introduced two new radio-phonographs with automatic record changers. Sets are represented in the "New Products" pages of this issue.

**YOU'VE GOT A SURE SALE WHEN YOU SHOW THEM THE } NEW PRESTO, JR. TURNTABLE**



●Radically different in design and performance from any other turntable on the market . . . excellent for playing sound effects, phonograph records or 16" electrical transcriptions. A 12" dual-speed table that matches closely the performance of a 16" table at *one-fourth the cost*. It's precision-machined, dynamically balanced, hand-finished throughout . . . powerful, vibrationless. Speed is accurate to .4%, regulation within a revolution .2%. Show it to your customers who want a *better* turntable. Write for catalog sheet and price.

Canadian Distributor: Walter P. Downs, 2313 St. Catherine St. W., Montreal, P. Q.

**PRESTO RECORDING CORPORATION**  
 242 West 55th Street, New York, N. Y.

World's Largest Manufacturers of Instantaneous Sound Recording Equipment and Discs

## Hegleman Heads Own Firm to Distribute Farnsworth



Max E. Hegleman

A new radio distributor in eastern New York state and surrounding areas, is the new jobbing firm formed by Max E. Hegleman, one of radio's well known "old timers" in the territory. The new company will bear his name, and will be known as "your friendly distributor"—a slogan Mr. Hegleman has used for many years. Executive offices and showrooms will be at 12 Sheridan Ave., Albany, N. Y. Products of the Farnsworth Television & Radio Corp., Ft. Wayne, Ind., will be distributed.

Mr. Hegleman says that in spite of radio shortages, great merchandising opportunities exist now for the radio man, and that "the genius of American engineering has always come to the rescue."

## Tubes Get Philippine Tests

A report from Ken-Rad Tube and Lamp Corp., Owensboro, Ky., is that "The Commonwealth Government of the Philippines has been trying out tubes, and according to government technicians as well as other expert radio and sound technicians, Ken-Rad radio tubes were found to give longer life and more satisfactory service than any other tubes locally obtainable.

## Distributor Policy on Cannon Plugs

Announcement from Cannon Electric Development Co., 3209 Humboldt St., Los Angeles, Calif., is that its "sound plugs" will now be obtainable from jobbers, under a new policy. Costs to dealers and servicemen in most cases remain the same. A new type "x" catalog sheet now replaces all previous ones.

## RCA Head Speaks at Western Dinner

Speaking on the subject "Radio Marches On," Fred D. Wilson gave the main radio address at the 14th semi-annual Western Radio and Appliance dinner, held Aug. 6th in connection

with the Western Market at the Merchandise Mart, San Francisco. Mr. Wilson is manager of field sales activities for RCA Mfg. Co. Charles A. Dostal, Pacific Coast district manager for Westinghouse, was chairman of the program.

## Jaffe Heads Howard Advertising

The new advertising manager for Howard Radio Co., 1731 Belmont Ave., Chicago, is Raymond Jaffe, according to news from Joseph M. Muniz, general sales manager for Howard. Mr. Jaffe has become a well known radio advertising expert through association during the last 5 years with ad departments of leading radio marketers.

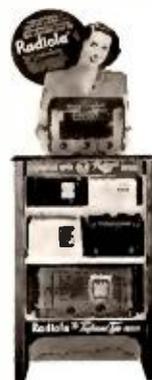
## Crosley Profits for First Half of '41

The Crosley Corp. for the first six months of 1941 operations showed a profit of \$1,098,634.58, before provision for taxes, according to R. C. Cosgrove, vice-president and general manager. This profit was based on total net sales of \$12,868,956.75.

## Neely for REL

Appointed as western representative for Radio Engineering Labs, Inc., Long Island City, N. Y., is Norman B. Neely Enterprises, at 420 Market St., San Francisco, Calif., and at 5334 Hollywood Blvd., Hollywood. REL is a pioneer maker of FM broadcast and communications radio equipment.

## Model Salesgirl



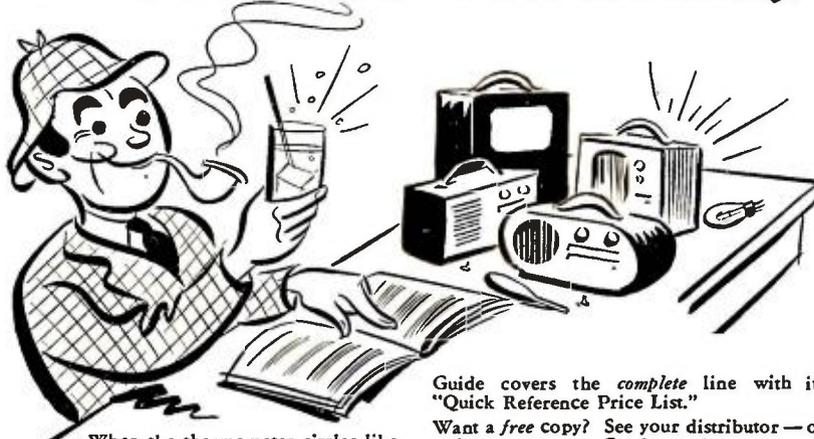
The nation's most publicized model, Jinx Falkenburg, appears life-size, full-color in this new Radiola display. It's sturdy cardboard for your floor or windows.

## Emerson Has Six New Tubes

Six tube types have been added to the renewal tube line of the Emerson Radio and Phonograph Corp., New York City. These types have been used in fairly large quantities as initial equipment, and renewal demand is already being felt. They are 12SF7, 6SS7, 1SA6GT, 1SB6GT, 3B5GT and 117Z4GT.

It was pointed out by Jack Geartner, tube sales head, that Emerson has now been in the tube field one year and already has "many millions of our tubes in use here and abroad."

## NO "DOG DAYS" FOR HOMER!



When the thermometer sizzles like a fried egg . . . and you're running yourself ragged, trying to figure out the right replacement for those new portables . . . take a tip from Homer!

Homer G. Snoopshaw, B.R.S. (Battery Replacement Specialist), is as active as a Burgess cell . . . and as cool as a cucumber. You see, he's got all the answers in a book — the "Burgess Replacement Guide to Portable Radios" — which he recently compiled. It's as simple as A B C to find the right battery for any given model — because the Burgess line covers the field like a tent — and the

Guide covers the complete line with its "Quick Reference Price List."

Want a free copy? See your distributor — or write to Homer G. Snoopshaw, care of Burgess Battery Company, Freeport, Illinois.



that make Burgess "The Complete Replacement Line."

**BURGESS BATTERY CO.**  
FREEPORT, ILLINOIS

**BURGESS** THE Complete REPLACEMENT LINE

## Dry Electrolytic Condenser Patents Upheld

In an exhaustive opinion dated June 19, 1941, in the case of Samuel Ruben and P. R. Mallory & Co. Inc. vs. Ariston Laboratories, Inc., Judge Barnes of the U.S. District Court upheld the validity of Ruben patents Nos. 1,710,073 and 1,714,191, covering dry electrolytic condensers, found that defendant had infringed, and ordered an accounting of damages. The Mallory Company is the exclusive licensee under the patents, with the right to grant sublicenses.

The decision held that the Ruben inventions had filled a long-felt want and embodied a new combination not anticipated by any prior references. The Court said:

"The evidence shows that all commercially practical dry electrolytic condensers on the market today stem directly from and embody the Ruben inventions of the patents in suit. So far as the art knows today, there is no way of making a commercially practical electrolytic condenser except by following the fundamental teachings of the Ruben patents."

## "Sun Sound Studios" Open in NY

The public address department of Sun Radio Co., 212 Fulton St., New York City, has been expanded into the "Sun Sound Studios," a big display and demonstration room occupying the entire second floor of an adjacent building. In the special sound-proofed interior, decorated in the modern manner to simulate home conditions, will be shown a variety of home fidelity equipment plus all types of amplifiers and sound systems and accessories.

Sun Studios will open to the public daily. Also, readers with sound problems are invited to write the firm for free analysis and recommendations.

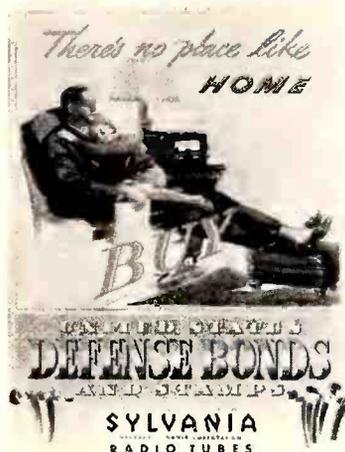
## E. J. Maginot Manager of Sales Engineering at N.U.

With a rich background in both the technical and practical ends of radio, E. J. Maginot becomes manager of the sales engineering department of the National Union Radio Corporation, Newark, N. J.

Mr. Maginot started in radio in the very early days—first as an amateur operator constructing a phone transmitter around old Navy VT2 tubes and as a commercial ship operator during 1913-15. After the World War, he joined the Arthur W. Mayer Company of Boston in the retail radio business, and started his own radio service company in 1934. During this time, Mr. Maginot lectured at Eastern Radio Institute, Boston, and the Massachusetts Radio & Telegraph School, Boston. He also helped organize the Radio Technician's Guild and served as President for three terms.

A. R. Kahn of Electro Voice Mfg. Co., South Bend, Ind., is receiving expressions of sympathy on the death of his father, who was associated in the Electro Voice business.

## Defense Promotion



A tube manufacturer herewith contributes to sale of U.S. Defense Bonds and Stamps, by supplying this 8-color window poster through jobbers

## Service Meets to Discuss RCA Magic Brain

A series of five meetings of RCA executives, distributors and key dealers is being planned to demonstrate and explain the new Magic Brain automatic record changer features. The meetings are scheduled for Camden August 18, Chicago August 21, San Francisco August 25, Kansas City August 28, and Atlanta, Ga., September 4. All meetings will be conducted by Allan Mills, manager of Victrola sales, B. R. Carson, design engineer, Warren Kimball, service engineer, and John Allen of RCA advertising department.

## Cabinet Plant Opened by Howard Radio

A new radio cabinet plant has been opened by Howard Radio Co., 1735 W. Belmont Ave., Chicago, and modern equipment has been brought in to "insure finest quality of workmanship and best possible service." The plant will be supervised by Howard executive vice-president Charles B. Shapiro, a cabinet expert of long standing, who has been recalled from his work as Pacific Coast sales head, for the new position.

## New Rider Book Covers Philco Alignment

Volume two of Aligning Philco Receivers has just been published by John Rider, 404 4th Ave., New York. This 200-page text covers those Philco sets marketed since the publication of the first edition in 1937. The tabular alignment data scheme has been followed and chassis layout diagrams show the position of the various trimmers. A chapter with general information on the alignment and set-up of remote control units, and one on general alignment procedure round out the book. The price is \$1.60.

## RSA NOTES

Newest RSA chapter is the LaPorte Radio Servicemen's Association of LaPorte, Ind. Ray B. Mould, 319 E. Maple St., is president and Stanley A. Kubit, 119 Laurel St., is secretary-treasurer. Eleven members form the nucleus of the group.

Various systems have been worked out to mark receiver chassis so that a glance will tell the approximate price of a former repair, or of an estimate for repair. The Oklahoma City Radio Service Association employs only a sharp edged tool for scribing a simple number and letter combination on the chassis. Its use does not harm or mar the radio and is very inconspicuous; yet cannot be easily removed. At a glance a serviceman can tell who serviced the receiver (or estimated the cost of servicing), and the amount of such repair or estimate within twenty-five cents.

As described by R. B. Cherry: "Each local serviceman has been designated by a number. We first scribe our number in an inconspicuous place on the back of the chassis. Following the number, a letter is scribed designating the amount of charges, starting with the letter A for \$1, B for \$2, C for 3, etc. The letter is followed by a plus or a minus sign to show the cost within fifty cents. For example, a member with number 4 assigned to him repairing or estimating a job for \$3.80 would scribe on the chassis 4D—; member 11 doing a job for \$2.40 would mark it 11B+; etc.

The Boston Chapter, RSA, Raymond C. Wyman, chairman, is carrying its usual schedule providing a series of lectures on fundamentals of radio theory, with practical applications of the material to radio servicing. It is planned to continue this series giving a well rounded coverage of the entire field. The speakers are selected from the membership, which promotes a very friendly atmosphere.

In the annual election of officers of the Danville Chapter, elected were: president, F. S. "Mike" Mosier; vice-president, Ben Williamson; secretary, Evard Welch; treasurer, Earl Drolinger; membership, Harry Longer; examiner, G. R. "Doc" McKinney; advertising, Lyal Cummings; program, Owen McArdle; and Editor the "Serviceman's Dirt," Cal Stapp. The retiring officers entertained at an after dark picnic on July 23rd at Doc McKinney's "Ranch." The Sea Scout school conducted by Danville RSA has been dismissed for a summer vacation.

Lehigh Valley Radio Service Association holds its regular monthly meetings in the Hotel Allen, Allentown, Pa., on the first Monday of each month—a closed meeting for members only, and an open meeting on the third Monday of each month. At the meeting of July 7th the parts and equipment show for September was discussed. A "Radio Quiz" of fifty questions, in which all present participated, found Rees as winner with Buss runner up. The third annual clambake will be held on August 18th at Feilbach's Grove, Bethlehem.

## Emerson-Pennsylvania Opens in Philly

To serve Emerson dealers in eastern Pennsylvania, southern New Jersey and the state of Delaware, the firm of Emerson Radio of Pennsylvania, Inc., has been formed with headquarters at 2116-30 Arch St., Philadelphia. President is A. Irving Witz, who has already greeted dealers at an open house event. Full stocks of new Emerson sets, parts, cabinets, tubes, batteries, etc., are carried in the new and spacious quarters.

Albert Winchell, formerly with Gross Sales Co., New York City, has been named credit and office manager for the new outfit.

## Antenna Maker Names Three Reps

Three representatives have been announced by the Vertron Mfg. Co., 132 Nassau St., New York City, makers of noise-reducing home antennas: John O. Olsen, 1456 Waterbury Road, Lakewood, Cleveland, Ohio (for Kentucky, West Virginia and Ohio); J. Earl Smith, Box 1805, Dallas, Tex. (for Texas, Oklahoma, Arkansas and Louisiana); and Harry A. Lasure, 2216 11th St., Los Angeles, Calif. (for Arizona and California).

## Television Facts

Compiled by M. N. Beitman, Supreme Publications, 3727 W. 13th Street, Chicago, has issued its new



The sales crew of the new distributor, Emerson Radio of Pennsylvania, Inc., Philadelphia. Left to right, lower row, A. Winchell, S. Levine, A. Irving Witz (president), M. Marr, M. Oberst, H. Segal, I. Dunstan, W. Brunner, and S. Baker. Upper row, P. Rofield, R. Miller and a guest.

60-page "Cyclopedia of Television Facts."

Following a brief statement of the principles of television operation, with circuit diagrams and illustrations, the major part of the book is made up of definitions of television and radio terms, fully interpreted.

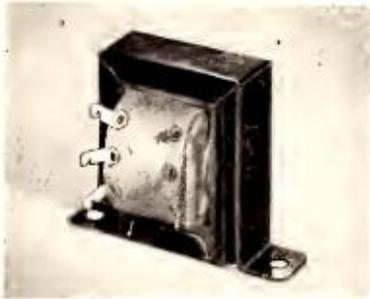
The price of the book to radio service men and experimenters is 40 cents net. Copies can be obtained from radio jobbers or from the publishers.

## Holmes to Manage Crosley Defense Activity

Appointment of Howard A. Holmes of Detroit to head the defense products division and to act as representative of the Crosley Corporation in its dealings with governmental agencies on national defense projects has been announced by R. C. Cosgrove, vice-president and general manager of the company.

# SERVE OUR COUNTRY!

CURTAINED SET PRODUCTION  
MAKES PART REPLACEMENTS  
VITALLY NECESSARY



Dealers and Service Engineers—serve our country by encouraging replacements in old receivers, thus reserving vital components necessary for national defense.

The limitation of materials for new receivers is creating a wide transformer replacement market. Be fully acquainted with the complete line of THORDARSON Replacement Transformers to meet this increased demand. THORDARSON is doing its part by continuing to supply a complete line of replacement transformers for practically all receivers. You can replace quickly and accurately with THORDARSON.

Ask your THORDARSON distributor for Replacement Transformer Encyclopedia No. 352-F and Transformer Catalog No. 400-F. These books are full of valuable information for the Service Engineer.

## THORDARSON

ELEC. MFG. CO.

500 W. HURON ST. CHICAGO, ILL.

TRANSFORMER SPECIALISTS SINCE 1895



## SUPPLEMENT TO SYLVANIA'S TECHNICAL MANUAL

THIS supplement lists all the types of tubes announced since the Fifth Edition, Second Printing of the Sylvania Technical Manual was released.

Base views and operating characteristics are either given—or referred to equivalents. This saves time and space. Cross references used are clear and easy to follow.

Distribute these supplements to

*Sylvania Radio Tube Division*

**HYGRADE SYLVANIA CORPORATION**  
EMPORIUM, PA.

Please send me ..... copies of the new Sylvania Technical Manual Supplement.

Name .....

Address .....

# DON'T JUNK YOUR OLD RADIO TUBES

• You can cash them in for valuable merchandise under General Electric's New Radio Tube Merchandise Award Program.

Get the facts! Talk with your nearest G-E Radio Tube distributor or write the General Electric Company, Radio and Television Dept., Bridgeport, Conn.

**GENERAL  ELECTRIC**

## Amphenol Products Expanded

Two new factory buildings have been added to the manufacturing facilities of American Phenolic Corp., fabricators of Amphenol radio and electrical parts and molders of bakelite, polystyrene and other synthetic resins. The increased facilities will, according to president Arthur J. Schmitt, insure fairly prompt delivery of parts needed in radio production although about 80 per cent of production goes to defense. Mr. Schmitt said that jobbers who supply servicemen, dealers, amateurs, and industrial accounts with connectors, sockets, insulators, co-axial cables, coil forms, etc., are getting merchandise without undue delay.

American has developed a new line of connectors, called "AN" because they conform with Army-Navy specifications, a line so extensive that many domestic uses have been found for the connectors in radio and electrical industries.

The new address of American Phenolic is 1830 S. 54th Ave., Cicero Post Office, Chicago.

## Dealer Showings Boost Emerson Sales

At Emerson headquarters in New York City, reports of new sales peaks are being received from the firm's distributors in various cities, who have recently held dealer showings for the new Emerson lines. Such reports have come from Kelley-Mason Co., Inc., Cincinnati; B. W. Smith, Inc., Cleveland; Van Zandt Supply Co., Huntington, W. Va.; Electrical Specialties Co., Detroit; R. B. Wall Co., Wilkes-Barre, Pa.; and Mayflower Sales Co., St. Louis.

## Kelvinator Execs Promoted

Nash-Kelvinator Corp., Detroit has created a new post, that of vice-president in charge of sales, and Frank R. Pierce, formerly general sales manager of the corporation's Kelvinator division, has been elected to fill it, George W. Mason, president, has announced.

Other advancements in the executive organization were announced by Mr. Pierce. Charles T. Lawson, who has been sales manager of household appliances, will succeed Mr. Pierce,

and will have the title of general sales manager of the Kelvinator division.

E. Ray Legg, former Western sales manager, has been appointed successor to Mr. Lawson as sales manager of household appliances and Don Rulo will succeed Mr. Legg as Western sales manager.

## New Jobbers for Columbia Records

Three new distributors have been appointed for Columbia and Okeh records, according to word from Paul Southard, sales manager of Columbia Recording Corp., Bridgeport, Conn. These are the Southern Equipment Co., 419 S. St. Mary's St., San Antonio, Tex.; Omaha Appliance Co., 18th and St. Mary's Streets, Omaha, Neb.; and Westinghouse Merchandise Distributors, 196 Franklin St., Buffalo, N. Y. (for the area formerly served by W. Bergman Co.)

## Adams Named by Admiral

John Q. Adams has been announced by Continental Radio & Television Corp., Chicago, as the new district sales manager for Ohio, Southern Illinois, Eastern Missouri, Iowa and Nebraska. Mr. Adams formerly sales manager for Champion Radio Works, has had 20 years of experience in radio merchandising, buying, and manufacturing. His headquarters will be at Admiral offices, 3800 Cortlandt St., Chicago.

## Turner Appoints Aaron

Named as sales representatives for The Turner Co., Cedar Rapids, Iowa, are Irvin I. Aaron & Associates, 4038 N. 16th St., Milwaukee, Wis. Aaron will cover Minnesota, Wisconsin, and parts of North Dakota and Illinois, handling Turner's complete line of microphones and mike equipment, and the new Turner push-pull vibrator.

## New RCP Rep

Radio City Products Corp., 88 Park Place, New York City, has announced the appointment of L. M. Bornstein to represent RCP radio and electrical test equipment for Missouri, Kansas, Iowa and Nebraska. Headquarters are at 5418 Paseo, Kansas City, Mo.



## It's New -- It's Here to Stay -- the **HOWARD** Automatic Record Changing Arm-Chair Radio

Again Howard cracks a new market with an unbeatable sales and profit opportunity — the new "Arm Chair Radio."

Each beautiful cabinet, available in 3 finishes, contains the famous 8 tube, 2 band Howard chassis providing over 7 watts of powerful push-pull output; 12 inch Jensen electrodynamic speaker, automatic volume control, push-button tuning, electric eye and built-in loop antenna — plus convenient storage compartment for record albums.

In combination with this superb set-up is the latest type automatic record changer. Plays 10 records automatically and has high fidelity crystal pick-up assuring the full rich reproduction synonymous with the famous Howard name.

The many exclusive Howard features of higher priced units are "wrapped up" in this choice "bundle" of radio value. Write today for extra profits tomorrow!

**HOWARD RADIO COMPANY**

1731-35 Belmont Av., Chicago, Ill. - Cable Address: HOWARDCO, USA

*America's Oldest Radio Manufacturer*

## NEW BOOKLETS

Replacements for receiver volume controls are listed in the new IRC Replacement Manual now available to servicemen through IRC jobbers or direct from International Resistance Co., 401 N. Broad St., Philadelphia, Pa.

The new Staco No. 621 catalog listing seven additional new Staco relays. Standard Elec'l. Products Co., 317 Sibley St., St. Paul, Minn.

Premax Prods. Div. of Chisholm-Ryder Co., Inc., Niagara Falls, N. Y., announces their new catalog R-42 showing the present line of Premax radio antenna equipment.

Two models of a new electric bond connection tester, the Aero-Gun and the Milli-Ohm-Meter model are described and illustrated in a new bulletin designated as "B" 28 from the Shallcross Mfg. Co., Collingdale, Pa.

Leaflet on Bright Star radio batteries for portable and non-portable receivers gives specification data and illustrations of the different types. Bright Star Battery Co., 200 Crooks Ave., Clifton, N. J.

The Duotone Co., Inc., 799 Broadway, New York City, presents a complete line of playback and cutting needles in a new folder.

A catalog page from the Tonofon Co., 15 E. 26th St., New York City, contains information on phonograph needles, recording discs and accessories.

The installation uses, description and prices of Worner "Fotoelectric" products are given in 2 circulars entitled "Speed Up Your Production" and "The Guard that Never Sleeps" from Worner Prods. Corp., 1019 W. Lake St., Chicago, Ill.

The new 1942 line of Emerson radios with "Miracle Tone" are offered in a new manual, furnishing specifications and pictures.

"Wilcox-Gay Recordio for '42" is the name of the new brochure put out by the Wilcox-Gay Corp., Charlotte, Mich., showing the complete Recordio line and also including information on its advertising and merchandising helps.

The National Broadcasting Co. has compiled a list of their radio broadcasting stations throughout the United States and Canada, giving power and frequency as of May 1, 1941, in booklet form.

General Cement's new catalog No. 142 on its line of radio chemicals and products contains specifications, prices and illustrations in 36 pages. Available on request to General Cement Mfg. Co., Rockford, Ill.

Two publications are now being released by Solar Mfg. Corp., Bayonne, N. J. One is "Defense and You," a lively discussion of problems arising from material shortages in making condensers (with a list of available types), and the other is the latest Solar specification catalog in pocket width with pictures and ratings.

Two new folders from the Allen B. Dumont Labs., Inc., Passaic, N. J., describe and illustrate their new television receivers.

New Stangard catalog includes complete list of aids for the radio serviceman such as chemical products, switches, dial parts, auto antennas, dial belts, ballast tubes, etc. J. F. D. Mfg. Co., 4111 Ft. Hamilton Pkwy, Brooklyn, N. Y.

A copy of the new 20-page catalog, No. 11, of Howard B. Jones, 2300 Wabansia Ave., Chicago, Ill., will be sent free on request. It illustrates and describes their complete line of electrical connecting devices.

The new Learmatic Navigator, a basic instrument for aircraft navigation is described in a booklet just released by Lear Avia, Inc., 30 Rockefeller Plaza, N. Y. C.

A complete engineering and amateur guide book on RCA transmitting tubes is now off the press. The 72-page book describes 69 tubes, 5 transmitters and 150 circuits. Price, 25c from RCA Commercial Engineering Section, Harrison, N. J.

A new edition of Meissner's 1941 general catalog gives price changes and considers the needs of the serviceman, custom set-builder and experimenter in its presentation. It also includes an amateur equipment section. Meissner Mfg. Co., Mt. Carmel, Ill.

Prices and specifications of the complete line of sound equipment of Atlas Sound Corp., 1443 39th St., Brooklyn, N. Y., is shown in its new Catalog F-41.

A revised edition superseding the January '41 issue of Burgess Replacement Guide of portable radio batteries has been released by Burgess Battery Co., Freeport, Ill.

Two folders from the Astatic Microphone Lab., Inc., Youngstown, Ohio, describe its featherweight low pressure crystal pickups.

Copies of the 1941 catalog No. 41 of the Garrard Sales Corp., 296 Broadway, New York, N. Y., may be obtained free. It describes and illustrates their complete line of automatic record changers, phono turntables, motors, pickups and accessories.

A folder relating the uses and description of the FPC after-glow luminous liquid plastic paints, includes a sample. Fluorescent Pigments Corp., 145 W. 41 St., New York City.

New 50-page catalog from J. W. Miller Company, 5917 S. Main St., Los Angeles, Calif., covers the very complete line of radio and industrial coils, high fidelity and FM tuners, receiver kits and special parts. Several industrial filter and radio circuits and complete price list are included. Available on request.

Erwood's new sound equipment catalog, 641, covers information on sound systems from 8 to 75 w. and also special units and accessories.

# Big Profits

## FROM NEW BUSINESS

### SELLING GTC

# PORTA-POWER



### FOR NON-ELECTRIFIED RURAL DISTRICTS

*Operates from 6-Volt Storage Battery*

Replaces "A" and "B" batteries in 1½ volt portable or farm radios, having 4, 5 or 6 tubes. Supplies 1½ "A" and 90 volts "B." Gives high quality reception at low cost operation.

List price \$12.50—**COSTS YOU \$7.50**

### For R. E. A. DISTRICTS use these GTC

## PORTA-POWER MODELS

*to Convert Battery*

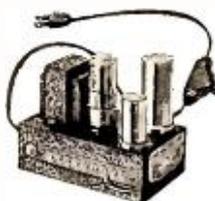
*Radios to Power*

*Line Operation*

### MODEL "P" For 6 volt radios "Twin-Powered"

Converts 98% of all 6 volt radios. Vibrator disturbance is eliminated. High fidelity performance assured.

List price \$13.95—**COSTS YOU \$8.37**



### MODEL "L"

For 2 volt radios Supplies "A" and "B" and "C" power to 4 to 8 tube battery-operated radio sets using 2 volt tubes.

List price \$9.95.

**COSTS YOU \$5.97**

### MODEL "U" For 1½ volt portable or farm radios

Powers any 4 or 5 tube portable or farm radio using 1½ volt tubes. Provides "A" and "B" power. List price \$7.50.

**COSTS YOU \$4.50**

### MODEL "G" For 1½ volt radios of 4, 5, or 6 tubes

For 1½ volt radios of 4, 5, or 6 tubes requiring more power than Model "U" provides. List price \$9.50.

**COSTS YOU \$5.70**

*Free Literature and Further Information on Request*

**GENERAL TRANSFORMER CORP.**  
1254 W. VAN BUREN ST. - CHICAGO, ILLINOIS



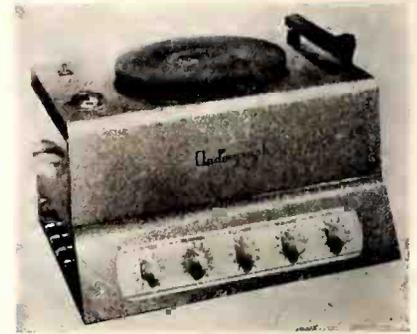
### Erwood P.A. system

★ Address system with amplifier having provision for using 4 mikes. 30-watts output. 2 mikes of uni-directional type. P.M. speakers available in portable cases or in permanent type walnut baffles. Erwood Sound Equip. Co., 222 W. Erie St., Chicago, Ill.—RADIO TODAY.



### RCA Magic Brain

★ New automatic record changer plays up to 15 records on both sides without turning them over. Twin pickups play the record first on top and then underneath as turntable reverses rotation. Played record is deposited in pit at left. Permanent needles and "Tone Bridge" give new quality performance. RCA Mfg. Co., Camden, N. J.—RADIO TODAY.



### Audiograph amplifier

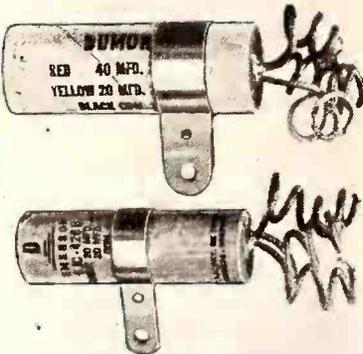
★ New 70-watt amplifier for high power installations has four separate mike channels, and one phono input channel. Uses two separate power supplies for best regulation. Range of output impedances from 2 to 500 ohms. List \$95. Model B-70C. John Meek Industries, 1313 W. Randolph St., Chicago, Ill.—RADIO TODAY.

**DEPENDABILITY  
QUALITY  
ECONOMY**

• Fastest Selling  
Condensers to the  
Service Trade

**DUMONT  
PRECISION BUILT  
CONDENSERS**

From 6 Volts to 485 Volts



**FULLY  
GUARANTEED  
for  
ONE  
YEAR  
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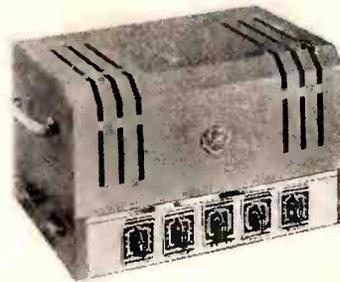
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**YOUR GUARANTEE**  
of Finest Quality

AT YOUR JOBBER OR WRITE TO

**Dumont Electric Co.**  
514-516 Broadway, New York  
MICA · PAPER · ELECTROLYTIC

### Okeh chromium needle

★ New type of popular priced needle with purple shank. Made from finest steel chores and chromium plated. 10c for a package of 3. Columbia Recording Corp., 1473 Barnum Ave., Bridgeport, Conn.—RADIO TODAY.



### Webster-Rauland amplifier

★ Phono-amplifier with automatic volume expansion permitting true fidelity of voice and music as recorded. Dual-fader-phono unit, 2 separate tone controls, master volume control. Webster-Rauland, 3825 W. Armitage Ave., Chicago, Ill.—RADIO TODAY.



### Walsco wall-rack

★ A wall rack to hold an assortment of Unibelts (new adjustable dial belts), dial cords and cables, and a bottle each of radio cement, cement solvent, contact cleaning fluid and dial oil. Free with purchase of products it holds. Walter L. Schott Co., 5266 W. Pico Blvd., Los Angeles, Calif.—RADIO TODAY.



### Talkaphone intercom. systems

★ A deluxe line of intercommunicating systems available for 3 types of intercommunications: master selective, super-selective and combination selective. All operate from 110 v., AC or DC. Walnut cabinets. Talk-A-Phone Co., 1217 W. Van Buren St., Chicago, Ill.—RADIO TODAY.



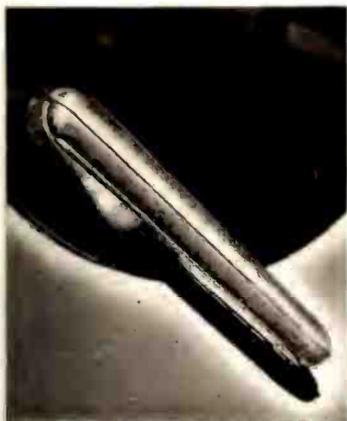
### Astatic mobile pickup

★ Model AB-8M pickup is designed for sound trucks, aeroplanes, and other mobile equipment where the turntable cannot be kept horizontal at all times. Shown in actual operation, the pickup will track without jumping even with a vertical position of the record. Astatic Corp., Youngstown, Ohio.—RADIO TODAY.

# THINGS

## G. C. knob puller

★ A radio knob puller for removing spring held types fits back of all knobs and gives good grip. Made of spring steel, the tool is easy to carry and handy for those small plastic knobs that are hard to get a hold on. General Cement Mfg. Co., 919 Taylor Ave., Rockford, Ill.—**RADIO TODAY.**



## Shure crystal pickup

★ New 1-ounce crystal pickup with permanent sapphire point needle. 1.4 v. output at 1000 c.p.s. Plastic arm in mahogany finish. Set screw permits changing of needle without replacing cartridge Model 97AN pickup with permanent sapphire needle lists at \$6.50. Shure Bros., 225 W. Huron St. Chicago, Ill.—**RADIO TODAY.**

## Acrosnap switch

★ A single pole switch furnished with normally open, normally closed or double throw. 10 amps. 115 v. AC capacity. Operating pressure ½ oz. to 14 oz.; weight less than 1 oz. Acro Elec. Co., 3172 Fulton Rd., Cleveland, Ohio—**RADIO TODAY.**

## Littelfuse mercury switch

★ Small mercury switch, 7/16 in. x 3/8 in., for use in circuits up to 25 v. AC or DC and currents up to 10 amps at 6 v. and 3 amps at 25 v. Designed for pin game machines, radio door lights, indicator circuits, etc. List price, 15c. Littelfuse, Inc., 4748 N. Ravenswood Ave., Chicago, Ill.—**RADIO TODAY.**



## Bell amplifier

★ A streamlined 48-watt amplifier has electronic bass and treble boost. Inverse feedback and power output tubes. 3 mike channels and phono pickup channel having separate volume controls. Impedance switch for using and matching as many as six speakers. Bell Sound Systems, Inc., 1183 Essex St., Columbus, Ohio—**RADIO TODAY.**

## RME crystal controlled sets

★ SPD-11 has a 6 channel tuning range within 2000 to 4000 kc., 3000 to 6000 kc., 4000 to 8000 kc. SPD-13 is designed for single channel operation up to 10 mc. SPD-15 identical to SPD-13 except for additional frequency doubler tubes. Range extends from 10 mc. to an upper limit of 40 mc. Radio Mfg. Engineers, Inc., Peoria, Ill.—**RADIO TODAY.**



## Atlas utility box

★ P.A. utility box for remote volume control, switch mounting, plug-in connector box, multiple microphone connectors. Holes are punched in position for control or connector application. Removable snap-button plugs cover "knockout" holes when not in use. 3 in. diameter, 1 ¼ in. deep. \$1. each. Atlas Sound Corp., 1451 39th St., Brooklyn, N. Y.—**RADIO TODAY.**

## Recordit brush

★ New chip brush for recorders keeps path in front of cutter free from cuttings which tend to jam the stylus. Fits all record-changer-recorders as well as straight types. Recordit, 555 Bedford Ave., St. Louis, Mo.—**RADIO TODAY.**



## Thordarson transformer

★ The addition of a new "19" series filament transformer, T-19F75, is especially recommended for use with the new RCA 816 rectifier tube. 115 v., 50-60 cycle primary. 2 ½ v. at 5 amps. ct. Test voltage is 7500 v. RMS. Thordarson Elec. Mfg. Co., 500 W. Huron St., Chicago, Ill.—**RADIO TODAY.**



## Ohmite plate choke

★ 2 ½ meter band R.F. plate choke, Z-O, single layer steel tube wound on a low power factor steel tube. 1 ¼ in. long, ¼ in. tube diameter. Mounted by means of wire leads. Other sizes available for 5, 10, 20, 40, 80 and 160 meter bands. Ohmite Mfg. Co., 4835 Flournoy St., Chicago, Ill.—**RADIO TODAY.**

# 46

## USABLE RANGES



## SUPREME 592 MODEL SPEED TESTER

Service men who know the principle of Model 592 operation will never go back to rotary switch or pin jack operation. 46 ranges at your finger tips!

1 MICROAMPERE TO 14 AMPS: 8 ranges (1-70/700 microamps; 7/35/140/350 M A; 1.4/14 amps.)

0.1 TO 1400 D.C. VOLTS: 7 ranges at 1000 ohms per volt and 7 ranges at 25,000 ohms per volt sensitivity of: (0.1-3.5/7/35/140/350/700/1400) Double Meter Sensitivity.

1/4 OHM TO 50 MEGS: 6 ranges (1/4-500/5,000/50,000/500,000 ohms and 5/50 megs). All from self contained battery power.

0.1 TO 1400 A.C. VOLTS: 6 ranges (0.1-7/35/140/350/700/1400). Temperature compensated—rectifier guaranteed.

COMPLETE OUTPUT RANGES: 6 ranges (0/7/35/140/350/700/1400). No external condenser necessary.

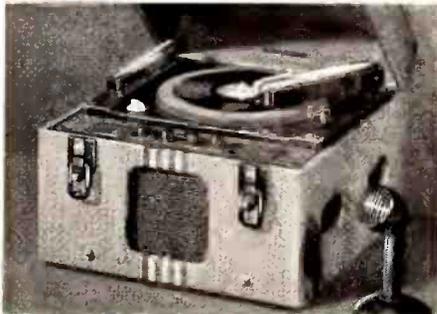
—10 TO +46 D.B.: 5 ranges. 0.006 to almost 200 watts --- (-10/+6; 0/+16; +10/+26; +20/+36; +30/+46). Reads direct on 500 ohm line. Chart supplied for reading any-line of known impedance.

Four years actual field use by thousands of Service Men prove the 592 to be TOPS in instrument value. See your Jobber or write Dept. RT7 for information.

# SUPREME

GREENWOOD, MISSISSIPPI, U. S. A.

## NEW BEST SELLER IN HOME RECORDERS!



Here's Talk-A-Phone's newest hit—a sensational 2-Speed Home Recorder! (1) Makes Records at 33 1/3 or 78 RPM; (2) Plays Records at either speed; (3) Works as PA System. 5 Tube Amplifier; 3 1/2 Watts Output; 6 1/2" Speaker; Electric Eye; with Crystal Microphone. Plays 10" and 12" records with lid closed. In handsome luggage-type portable case; 16" x 16" x 11". Quality-built—priced for volume sales! Write for details.



### A Complete PHONO LINE—20 Models! COMPLETE INTERCOM SYSTEM LINE!

Profit-Builders all! Wired and Wireless Players, Player-Amplifiers, Changer Players, etc. Also fast-moving Intercommunication Systems priced to sell! Take on these profitable lines! Distributors—a few choice territories still open. Dealers—see nearest distributor or write to us direct. Prices, discounts, literature sent on request.

**Talk-A-Phone Mfg. Co.**  
1219H W. VAN BUREN ST.—CHICAGO

## BUT WHAT OF Tomorrow?

"All-out" production to meet today's pyramiding orders does not mean that Triplett has lost sight of the broader requirements of tomorrow. Instead, research and engineering programs actually have been "stepped-up" to assure constant improvements in products and processes; in addition to needed developments in new fields.

Today's demands are important, but the needs of tomorrow cannot be slighted—and are anticipated in never flagging engineering and research developments. You have assurance that in the months and years to come, new Triplett products will serve in expanded fields, where they will merit values and savings for every dollar spent in their purchase.

**THE TRIPLETT ELECTRICAL INSTRUMENT CO.**  
Bluffton, Ohio

**TRIPLETT**

# SALES HELPS

## Home-like "Frame" for New Philcos

One of the newest merchandising "frames" for dealers to use in showing their new radios to best advantage on their sales floors, is a big "room setting" display piece offered by Philco. It gives retailers a chance to show sets as they would appear in the home.

The display shows off both large and smaller models, and is available on a cooperative basis through local Philco distributors.

Philco was the first radio manufacturer to announce a poster featuring Defense Bonds and Stamps—an eye-catching display available to dealers without charge. It is designed around a "Beam of Light" coming from the Statue of Liberty, and at the bottom the Philco signature includes a reference to its "Music on a Beam of Light" feature.

## Sales Aids Come from Ansley

The list of sales helps offered by Ansley Radio Corp., 21-10 49th Ave., Long Island City, N. Y., now includes complete advertising layouts for which mats are available, a sales manual on the Dynaphone, a set of individual mailing pieces on various models, and display materials for store use. The latter includes a distinctive "wood display" showing 13 different finishes used in Dynaphone manufacture.

All these sales aids are presented as part of a carefully planned advertising program undertaken by Ansley.

## A Business Helper for Two Bucks

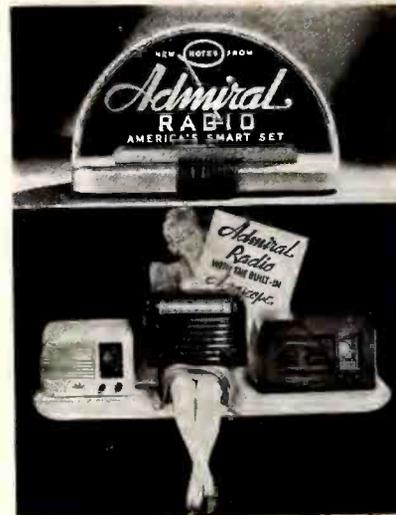
A new book making the rounds in the radio trade is "The Business Helper," written and published by Leslie C. Rucker, the well known Washington, D. C., jobber who was formerly president of the National Radio Parts Distributor Association. It is a 128-page non-technical handbook based on Mr. Rucker's 23 years of business experience, dedicated "to Mr. Little Businessman with the hope that it will assist him toward making a better living."

In practical language, the 22 chapters deal with such topics as buying, overhead, bookkeeping, advertising, banking, selling, collecting, etc. The volume sells through jobbers at \$2 net.

## Listen, Dealers!

"Listen America," 20-page booklet with handsome illustrations of the full line of new radios made by Sonora Radio & Television Corp., 2626 W. Washington Blvd., Chicago. Descriptions of table models, consoles, record players, combinations, recorders, farm sets and auto jobs, with emphasis on the "Clippers," "Stratoliners" and the 3-way personal "Candid" units.

## Sales-Getters for New Admirals



Released by Continental Radio & Television Corp., 3800 Cortland St., Chicago, are a series of lively and colorful sales aids for Admiral radios. The firm reports that radio men ordered these items in amounts as high as 400 per cent over original expectations.

For window or floor display, there's the "Record Girl," life size, full color, featuring combinations. For counters, there's another girl with one of three radios on her lap, and also for counter, window or shelf Admiral has an extra attractive electric sign, 13" by 8".

A blue satin banner with a patriotic theme is a colorful eye-catcher for store walls, and Admiral also offers an electric motor device to demonstrate the "Slide-A-Way" feature. Then there's a set of line folders, a pocket manual, a dealer deluxe catalog, etc.

## Home Recording Needs in Lively Display

An attention-getting display and dispenser card in three colors, has been introduced by Recoton Corp., 42 W. 15th St., New York City, as part of the



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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.

firm's Fall promotion drive. Newly designed packages of cutting needles, both steel and Stellite, and conveniently attached, along with packs of special playback points for home recordings. The display thus provides a lively and colorful showing of Recoton's full line of home recording needles, for window or counter.

Recoton is now taking orders for its new "Concerto" louder-tone needle, and is planning new sales promotions for this new product, too.

## Dealers Get Dice, Arrows, Lanterns!

Novel methods are now being used by Crosley distributors throughout the country, to invite dealers to local open-house showings of the new 1942 Crosley Glamor-Tone line of radios.

On the first day, a dealer gets a pair of dice that always roll "seven up" and a telegram that says "no gamble." Next day, he gets a bow and arrow, with a message about "hitting the mark" with new Crosley radios. On the third day comes a red lantern, with advice "to stop—don't move till you see Crosley."

Western Union messengers deliver the materials, and jobbers report exceptional success with the stunt.

## Attention-Getters from Westinghouse

A colorful set of promotion pieces has just been released by Westinghouse Electric Supply Co., 150 Varick St., New York City, where A. W. Sullivan is sales promotion manager. Among the smaller items are (1) 5-color post-cards on the Carryette WR-62K3, (2) 2-color folders for the rest of the Carryettes, (3) Full-line folders on 1942 models, and (4) 2-color wall-chart of the full line.

These pieces all have space for dealer imprints, and are effective for direct mail, stuffers, give-aways, as well as for store, window, or counter display.

Larger items include a banner, in silky blue and gold, 35" by 39", and a 4-color window or counter display with a "Listen to the World" theme with sections that may be used separately or grouped.

## RMS Plan Celebrates Eighth Birthday

The Philco RMS plan is honoring its eighth anniversary with a handsome new three-color membership certificate. The new certificate identifies the RMS member as "the official service organization for all Philco products." This ties in with the all year 'round service plan to repair radios, refrigerators, and air conditioning equipment. The certificates are available to members through Philco jobbers.

A special letterhead offer to RMS members has also just been announced. The new letterheads are lithographed in two colors and may be had with envelopes. Both are imprinted with the member's name, address, and telephone number. Net price from the jobber is \$4.60 per 500 or \$6.50 per 1000 for letterheads. Envelopes are \$3.85 per 500 and \$6.60 per 1000.



# Individually TESTED!

• Yes, even these inexpensive paper tubulars by Aerovox are INDIVIDUALLY tested. That's true of EVERY Aerovox condenser regardless whether it be a ten-dollar oil-filled capacitor or a ten-cent paper tubular. Each and every Aerovox condenser is pre-tested for your convenience, peace of mind, ultimate pocketbook.

## • Ask Your Jobber . . .

Ask for these Aerovox paper tubulars in new colorful yellow, black and red labels. Ask for latest catalog. Or write us direct.





## UNIVERSITY




**ENGINEERED to  
National Defense  
Specifications**

Every UNIVERSITY Reflex Speaker is built to Defense Specification Standards.

Every UNIVERSITY Reflex Speaker is well fitted to the various special National Defense Needs.

U. L. Reflex Speakers are being specified for most Defense Installations,

Because:

- U. L. Reflex Speakers have long had the enviable reputation of perfect performance in difficult installations.
- U. L. Reflex Speakers give perfect speech intelligibility with high background noise.
- U. L. Reflex Speakers have highest possible efficiency.
- U. L. Reflex Speakers have highest rated power capacity.

Assured delivery for all National Defense needs—maximum cooperation on all civilian orders.

**UNIVERSITY LABS.**  
195 Chrystie St., N. Y. C.




























## OUTDOOR SOUND

(Continued from page 16)

Each horn covers an area of 450 by 800 feet. The sound reaches maintenance men who are under the train platforms, or between the trains. The speech also has to reach the men riding the "electric mules" handling baggage and mail. The system is used solely for the purpose of directing the mechanical inspection crews that handle the cars and make up trains. The equipment consists of a 50-watt amplifier, 2 horns and "salt shaker mike," all Western Electric.

### P.A. AT RACES

Cooper has also installed a number of P.A. systems at race tracks, one worthy of particular note being at the track in the Detroit fairgrounds. This is unusual in that it is all automatic, with just one volume control for the minimum or maximum crowd conditions. The in between settings of volume are regulated automatically. The announcer can talk loud or soft, and it all comes out at the same level without in any way distorting. It eliminates any tendency of blasting or distortion.

They have a program wire service, automatic phonograph pickup and a separate bugle-record turntable. Be-

tween races they play a wired music service program over the system. In addition they also have records for supplementary entertainment.

Other P.A. jobs include race track at River Downs in Cincinnati and at Thistledown in Cleveland, each consisting of 100-watt sound systems. The peak outputs of these units is considerably more than the normal rated capacity.

From the description of these installations, it is easy to see that here is large and profitable market for sound men. There is still plenty of time left to get after many of these summer prospects. Start figuring on the fall installations too,—state fairs, circuses and carnivals, harvest festivals, etc.

### Ohmite Expands Factory Space

Another factory addition for Ohmite Mfg. Co., makers of rheostats, tap switches, resistors and chokes, has been completed at the plant on West Flournoy Street in Chicago. The expansion will further provide for the increasing requirements for Ohmite products in industry and National Defense.

The new plant doubles the firm's production space and features the most modern equipment throughout.

## Timely Promotions for Room Coolers

While the nation swelters in the late-summer heat wave, dealers are seriously considering the matter of quick and effective demonstrations and displays of new air conditioners and room coolers.

Among the fresh announcements made on this subject are those from Gale, General Electric and Philco. Gale emphasizes the importance of dealers making *rentals* of the cooling units, as a profitable method of actually selling the performance of the improved conditioners. Philco is doing a big job of whipping up consumer interest in its new models via a huge direct-mail campaign, and has reported strong sales increases for the newly styled Philco jobs.

General Electric has just announced a new presentation for use by salesmen of its new packaged cooling line. It's an 80-page book, produced strictly as a result of field experience, which enables "even a green salesman to go out and make an orderly and effective sales presentation." The device is arranged, according to the GE promotion head, Glenn Gundell, so that (1) It forces the prospect to select the proper unit to fill his needs, (2) It demands that the salesman ask for the order, and (3) it has a survey form, which when signed becomes the sales contract.

### Trio of Jobbers for Emerson

Three new distributors have been named by Emerson Radio & Phonograph Corp.: The Norge Products Co., Inc. of New Orleans, La., G. H. Lehlleitner, president; Southern Furniture Sales Co. of Knoxville, Tenn., F. E. Fowler, president and E. L. Fielden, sales manager; and Electric Supply Co. of Grand Rapids and Kalamazoo, Mich., J. L. Popkin, president.

### Universal Microphone Expansion

It has been announced by James R. Fouch, head of the Universal Microphone Co., Inglewood, Calif., that the Universal factory force has been tripled, and night shifts will be started. The firm is working on big government orders for aircraft microphones, special gear assemblies for radio equipment of the Navy, and other National Defense projects.

### Weston Names Reps

Weston Electrical Instrument Corp. has appointed Edward S. Sievers as Weston representative, located at 567 Subway Terminal Bldg., 417 So. Hill St., Los Angeles, Calif. John D. Farneman will be associated with Mr. Sievers in this territory.

### Conover at Crosley

The new branch manager of The Crosley Distributing Corp. in New York City is J. Lee Conover, who is already on duty at the NY jobber headquarters, 153 E. 44th St. Mr. Conover succeeds Fielding Robinson, who recently resigned.

# The FINEST MICROPHONES

for P.A. and RECORDING!



**AMPERITE VELOCITY MICROPHONE WITH PATENTED ACOUSTIC COMPENSATOR**



**New P. G. DYNAMIC WITH NEW SUPERIOR ELIPSOID PICK UP PATTERN!**



**AMPERITE KONTAK MIKES IDEAL FOR AMPLIFYING STRINGED INSTRUMENTS USED WITH ANY AMPLIFIER AND WITH RADIO SETS.**

ASK YOUR JOBBER . . . WRITE FOR FOLDER

# AMPERITE

561 BROADWAY NEW YORK



# New FARNSWORTH Combinations

*Strikingly different in eye appeal . . .*

*Impressive in performance*



← **Model CK-75**  
Meets the long-felt need for an attractively designed cabinet which can be placed anywhere—alcove, library, dining room or den. 7 tubes (including rectifier and 2 multiple purpose tubes), which provide 9 tube performance. Farnsworth "Velvet Action" Record Changer and record storage compartment.



**Model CK-73** →  
Offering the utmost in luxurious listening comfort, this charming version of a chairside combination is a beautiful example of Farnsworth modern styling. 7 tubes (including rectifier and 2 multiple purpose tubes), which provide 9 tube performance. Farnsworth "Velvet Action" Record Changer.



**Model CK-93**—Luxurious lines characterize this impressive combination. 11 tube performance. Farnsworth "De Luxe" Automatic Record Changer.



**Model CK-91**—A smart modern masterpiece—yet has many of the best features of period styling. 9 tubes. Farnsworth "De Luxe" Automatic Record Changer and record storage compartment.



**Model CK-92**—This Farnsworth draws its inspiration from Sheraton design. 11 tube performance. Farnsworth "De Luxe" Automatic Record Changer play control and record storage.

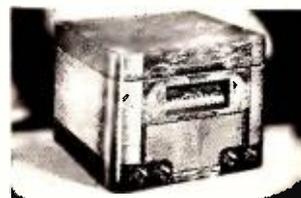
**D**ESIGNED to stand out in appearance and in performance, these new combinations by Farnsworth represent real profit opportunities for dealers who want to offer their customers not just radios with phonographs attached, but skillfully blended units.

Beautiful as they are, ingenious as is their design, extensive as is their range of style and price, fundamentally they are musical instruments of distinguished quality. Each has, of course, the dependable trouble-free Farnsworth automatic record changer.

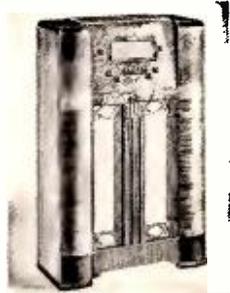
Of special interest are the new chairside combination (CK-73), and the compact, amazingly adaptable Washington Consolette (CK-75), featured on this page. They offer sensational sales opportunities. Call up your distributor today about them—or write, wire or telephone Farnsworth Television & Radio Corporation, Fort Wayne Indiana.



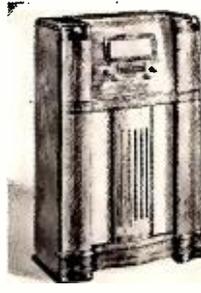
**Model CK-111**—This handsome Farnsworth combination is authentic Chippendale styling. 11 tubes. Farnsworth "De Luxe" automatic Record Changer, play control and record storage.



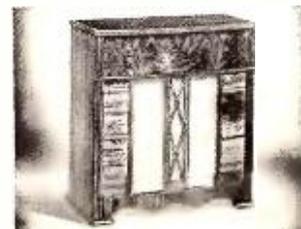
**Model CK-66**—A compact, moderately priced combination. 6 tubes. Farnsworth "Velvet Action" Record Changer. Beautiful two-section cabinet of walnut veneers.



← **Model CC-90**  
11 tube performance. Wide range electric tuning. Connection for television or FM adaptor.



**Model CC-70** →  
9 tube performance. Wide range electric tuning. 10-inch dynamic speaker.



**Model CK-74**—A cabinet of dignity and simplicity. 9 tube performance. Farnsworth "Velvet Action" Record Changer and record storage compartment.

# FARNSWORTH

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

# The RCA Preferred Type RENEWAL Tube Guide

... ANOTHER RCA FIRST!



RCA PREFERRED RENEWAL TYPE	INTERCHANGEABLE TYPE(S)*	Suggested Stock Quantities†			RCA PREFERRED RENEWAL TYPE	INTERCHANGEABLE TYPE(S)*	Suggested Stock Quantities†		
		A 150 Tube Inventory	B 250 Tube Inventory	C 300 Tube Inventory			A 150 Tube Inventory	B 250 Tube Inventory	C 300 Tube Inventory
OZ4	OZ4-G	1	2	4	12A8-GT	12A8-G	1	1	2
1A5-GT	1A5-G	1	1	2	12K7-GT	12K7-G	1	1	2
1A7-GT	1A7-G	2	4	8	12Q7-GT	12Q7-G	1	2	3
1C5-GT	1C5-G	1	1	2	12SA7	12SA7-G, 12SAZ-G	1	1	1
1H5-GT	1H5-G	2	3	7	12SK7				
1N5-GT	1N5-G	2	4	8	12SQ7				
2A3	2A3-H	1	2	3	24				
2A5			2	3					

INVEST LESS!

MAKE MORE!



# HERE'S YOUR GUIDE

to better Renewal Tube Business!

**A GLANCE** at the RCA Renewal Tubes Guide and you know exactly *which* tube types, and *how many* of each, should be on your shelves ...for maximum turnover with minimum inventory! You can quickly set up a "model stock" based on *facts*, not theory or guesswork. You can get the *most* business—most quickly—from your investment.

Of the 500-odd tube types listed for replacement needs, a few move fast. These are your profit-makers. Many move very slowly—cause excessive inventory and stock obsolescence.

**JUST 66 TYPES COVER UP TO 84% OF DEMAND!**

After months of study of actual renewal tube movement throughout the industry, RCA has shown that just 66 tube types cover 66% of all replacement tube requirements...and can

be *made* to cover up to 84% by interchanging types. (it takes over 400 additional types to serve the remaining 16%!) From such considerations, RCA created the Preferred Type RENEWAL Tube Program—to help you cover the greatest possible *demand* with the smallest possible inventory.

With radio's present importance in the National life, this program benefits both the industry and the public. To the retailer and the distributor, it means more profitable, more efficient operation. To the public, it means less waiting to restore operation of a high percentage of all of America's radio receivers...If you haven't received *your* copy of the RCA Preferred Type RENEWAL Tube Guide, by all means ask your RCA Tube Distributor for this handy chart today!



Preferred Type

RENEWAL

Tubes