



# RADIO *and Television* TODAY

SELL THEM ALL  
PORTABLES—  
FOR HAPPY DAYS  
THIS SPRING  
AND SUMMER!

APRIL



## *When Two Directions Are Better Than One* **USE UTAH BI-DIRECTIONAL SPEAKERS**

● The back wave, as well as the front, is utilized to deliver voice reproduction perfectly in the Utah Bi-Directional Speaker. Embodying the latest speaker design and construction features, it is especially suited for factory call and paging systems where high noise level is a factor.

The Bi-Directional Speaker cone resonance and response are matched to that of the attractive non-metallic case. An absence of excess low frequency response prevents distortion of voice. In addition to dustproofing the speaker, the case is treated to assure maximum freeness from dust and metallic particles.

Terminals of the Utah Bi-Directional Speaker are brought out through the case. It is not necessary to open it when installing. Choice of line transformers is included, tapped at 500 to 4750 ohms, marked clearly for hook-up. This permits the use of from 1 to 20 speakers on a 250 or 500 ohm line. Sturdy swivel base makes installation easy and enables

speaker to be turned in any direction after mounting.

### **UTAH WALL REPRODUCER**



This Utah speaker is identical in construction to the Bi-Directional; however, the response has been extended to reproduce music as well as voice. The case is of molded non-metallic material. The finish will blend with any decorative scheme. This unit is extensively used as an extra speaker for coin-operated phonographs—and as an additional speaker in homes, recreation rooms, etc.

Write for complete information about these and other speakers in the complete Utah line. 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

BE SURE TO STOP AT NOS. 1018 AND 1020 IN THE EXHIBITION HALL OR DEMONSTRATION ROOM 505A—NATIONAL RADIO PARTS TRADE SHOW, STEVENS HOTEL, CHICAGO, JUNE, '41.

THE POWERLINE FOR 1942

# Emerson

3-WAY  
PORTABLES

SUPER  
POWER

3

GANG  
TUNING

R.F.

NOISE  
REDUCING  
AMPLIFIER

7

TIMES AS  
SENSITIVE

•

GUARANTEED  
TO PLAY  
EVERWHERE



**SUPER-POWER**

**SPECIAL!** 6-tube Superheterodyne. 3-Gang Tuning Condenser. Tuned Radio Frequency amplification—Beam Power Output—Automatic Power Shift—Large Dynamic Speaker. Smart two-tone simulated leather case. Plays on (1), own power; (2), AC; (3), DC. **\$19.95**  
Model 427 COMPLETE

**SUPER-POWER!  
SUPER-STYLE!**

A streamlined beauty with all the great performance features of the POWERLINE—but styled to the limit. Simulated leather in russet contrasting with dark tan—banded with basket-weave decorative stripe. **\$24.95**  
Model 424 COMPLETE

**UTMOST IN POWER**

**UTMOST IN STYLE**

... The aristocrat of the POWERLINE—ultra-smart in its luggage-type styling—with special removable hinged front. AND... an extra large Dynamic (6½") Speaker. Night-Glo Dial Pointer... **\$29.95**  
BeamPower Output. **COMPLETE**  
Model 428

Prices Slightly Higher in West and South

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



## Taking Millions of People Out for a Good Time

EVERY HOUR, millions of RCA radio tubes glow with an invitation for everybody—a friendly, ever-present invitation. For Radio's latchstring is always out, in the greatest entertainment centers: Radio City in New York and Hollywood . . . the Metropolitan Opera . . . Studio 8-H with Arturo Toscanini and the NBC Symphony Orchestra. Or it may be drama, a comedian, a swing band!

### *Radio is Better than Ever this Year!*

New RCA Victor Radios, with finer tone—finer engineering than ever before—this year will bring even more pleasure to Americans everywhere. Push a button of one of

these RCA Victor Radios . . . and you're in a front-row seat! You hear perfectly the life-like, colorful performance: every note of the music, every inflection of the human voice.

And when the show is over, Cinderella-like you're home in a flash! No crowds. No traffic. No weather-worries. You've been across the city or across the ocean . . . without leaving your children or your household routine.

Distance doesn't matter—radio whisks you home as quickly from 3,000 miles as it does a mile. All the world is just across the street. You have had a great time—and you are informed right up to the minute!

## RADIO CORPORATION OF AMERICA

Radio City, New York

RCA Manufacturing Company, Inc.  
RCA Laboratories  
National Broadcasting Company, Inc.

Radiomarine Corporation of America  
R.C.A. Communications, Inc.  
RCA Institutes, Inc.



IS MOVING DAY FOR THESE SUPER-SELLERS!

## NEW RCA VICTOR "EXTRA" RADIOS MOVE FAST..BRING YOU "EXTRA" PROFITS



### RCA VICTOR SUPER SIX

Model 15X—17 great sales features for less than \$1 a feature! Continental Style Cabinet. Six RCA Victor Preferred Type Tubes. R-F Stage for better reception. Edge-lighted Glass Dial. New Style Bull's-eye Pointer. Music-Speech Tone Control. Plug-in for Record Player Attachment. Powerful 5-inch Permanent Magnet Dynamic Speaker. Improved Superheterodyne Circuit. Popular 1610-1712 KC. Police Band. Magic Loop Antenna. Big Knobs for easy tuning. Automatic Volume Control. Special Hi-Stability I-F Transformers. Connection for Extra Antenna. 16 to 1 Verner Tuning. AC-DC operation . . . . . \$1695\*



# RCA Victor

RCA Manufacturing Co., Inc., Camden, N. J.  
A Service of the Radio Corporation of America

—your customers extra quality  
at no extra cost

WEEK AFTER WEEK, more and more people are joining the thousands who have "discovered" these sensational RCA Victor extra radios. They give buyers extra quality at no extra cost—and they mean extra profits to the smart dealers who push them. Try it—and watch them move!



You can offer your customers full short-wave reception for only \$3 extra—with the  
**NEW RCA VICTOR 16X-11**

Here's a value that the ever-increasing army of short-wave listeners will go for in a great big way! It's priced only \$3.00 above the sensational Super Six—but it offers short-wave reception on the 49, 25, 19 and 16 meter bands. Has most of the features of the Super Six—plus two Built-in Antennas and Underwriters' Approval: AC-DC. . . . . \$1995\*

Trademark "RCA Victor" Reg. U.S. Pat. Off. by RCA Mfg. Co., Inc.  
\*Price f.o.b. factory, subject to change without notice. In Canada,  
RCA Victor Co., Ltd., Montreal.

# New 1941 Spring PHILCO PORTABLES

*Now Ready*



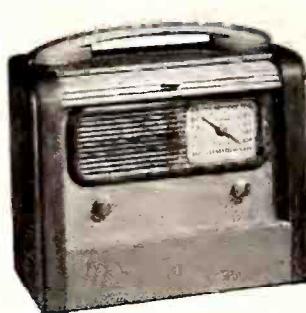
## 7-TUBE, PLUG-IN OR BATTERY PORTABLE

- Seven Tubes, including noise-reducing Converter tube.
- 3-Way . . . Battery, AC or DC house current.
- Two I. F. Stages . . . Built-In Aerial.
- Permanent Magnet Speaker.
- Handsome cowhide graining case.

MODEL 842T    \$29<sup>95</sup>  
Complete with Batteries

Just in time for the big Spring selling season! It's the easiest-to-sell variety of portable radios you ever saw. New 7-tube models, unequalled for power and performance . . . powerful Short-Wave models . . . new super-performing models in the lowest-price field. And they're all decked out in smart new cases with plenty of eye-appeal. Amazing values in every price bracket.

## MOST POWERFUL PORTABLE RADIOS EVER BUILT!



MODEL 844T. Same features as 842T. Walnut and Beaver graining case with Tambor door . . . . . \$39<sup>95</sup>\*



MODEL 843T. Same features as 842T. Case of pigskin graining with protective fold-down lid . . . . . \$3500\*

MODEL 854T. Same features and case as 844T, plus American and Foreign Short-Wave . . . . . \$49<sup>95</sup>\*

MODEL 853T. Same features as 843T, plus American and Foreign Short-Wave. Cowhide graining case with lid . . . . . \$4250\*

## AMERICA'S GREATEST PORTABLE RADIO VALUES!



MODEL PT-87  
5-tube Circuit. Plays anywhere on battery or AC-DC house current. Built-In Aerial. Full-Vision Dial. Cowhide graining case, ivory piping.

\$19<sup>95</sup>\*



MODEL PT-88  
Same features as PT-87. Case covered in pigskin graining, with lid. Ivory piping. Matching plastic bezel. Real leather handle.

\$25<sup>00</sup>\*

\*Prices include batteries. Prices slightly higher Denver and West.

**PHILCO ALL YEAR 'ROUND**

The Most Valuable Franchise  
in the Appliance Field!

RADIO TODAY

**RADIO**  
*and Television*  
**TODAY**

## GET YOUR PROFIT—OR DON'T SELL IT!

New conditions today face the radio trade.

The long downward spiral of deflation, falling prices, shrinking buying-power and glutted markets, now is past.

The "buyers' market," too, is fast passing into history.

The mad scramble for volume already is turning into a serious battle for profits.

Surplus production is disappearing as the major manufacturers turn more and more of their productive capacity into the channels of National Defense.

Raw-material costs and Labor's wages are increasing.

Taxes and other operating costs are rising.

Prices are going up—and the public is willing to pay them.

The stage is all set for radio dealers now to claim their rightful profits.

More people are earning more money than ever before in the history of our country.

This buying power, and the long deferred "urge to buy," is reflected in the rising tide of buying now reaching new all-time highs in many lines.

\* \* \*

Yet, in the past, faced with the competition of "buy-it-wholesale" offers, discount houses, "second-story artists," and cut-rate houses, honest radio dealers have been forced into the practice of giving discounts, long trade-in allowances and "deals" in an effort to stem the tide of receding sales volume.

And they have thrown away their profits in the doing.

It is now later than most dealers think, to correct this "discount racket" of the past. Further delay may forever remove the opportunity to do so.

Manufacturer, distributor and dealer should cooperate to this end. But the dealers alone can do the job.

Now is the time for every dealer to stop worrying about what the "other fellow" may do, and himself to do what he knows is the right thing to do.

Mark your radio with a fair price—and stick to it.

Allow no more on a trade-in than you know it is worth. Forget the "deals," the discounts, and the lost sales.

Don't continue to give your profits away—because you may find out you have given your business away, with no one to even say "thanks!"

Dealers CAN, if dealers WILL.

GET YOUR PROFITS ON EVERY RADIO YOU SELL—  
OR DON'T SELL IT.

Now is the time to do it.

Do it.

# SPRING TRENDS

## Many Push-button Radios Still Need Re-setting

The Great Re-Allocation of March 29 has come and gone, and 800 of the nation's stations are on their new channels and in new positions on the customer's dials. Service calls that were made were profitable. Some netted sales of \$6 to \$8 per visit.

But a large proportion of the country's eleven million push-button radios have yet to be re-set, from the reports coming in from radio servicemen, dealers, and listeners themselves.

It is doubtful that one-third of the button positions were re-tuned during Re-Allocation week-end. And as this issue goes to press, the likelihood seems to be that less than half of the receivers needing re-setting, have yet had that operation performed. More than half the big Re-setting job yet remains to be done.

In some cases new station positions were close enough to the old ones, to bring in an off-center but recognizable signal. In other instances, pushing a button brought in a new station of different call-letters, but some listeners just didn't mind. As customers continue to try out their sets on familiar stations, they are going to run into tuning trouble, and this will mean service calls all during April—and probably May.

Radio servicemen and dealers still have a lot of tune-up business waiting

for them. And as they call to re-set receivers, they will be able to sell tubes, condensers, transformers, controls, antennas and other repairs.

## Business Activity Continues Headlong

The buoyant quality of general business activity continues strongly into April, aided by the settlement of some of the major strikes, the Easter buying season, warm weather favorable to retail sales, and continued re-employment of workers in defense industries.

There has been talk about the delayed flow of goods to the public, as a result of the terrific emphasis on arms production, but Dun & Bradstreet report that "there is still no evidence of any significant curtailment of consumers' goods output resulting from defense activity."

Affecting radio sales these days are several factors: the new interest in portable sets, the continued increase in public buying power, more aggressive retail attitudes toward selling radio all summer, and the exceptional listener interest in broadcast news of the struggle in the Balkans.

## Musical Mobilization on May 4

This year, National Music Week will have a special feature as the event takes on an inter-American aspect. Plans are that a hundred million people from Canada to Cape Horn will sing and play and listen together on the opening day of the Week, May 4. The idea was developed by C. M. Tremaine, NMW chairman, and now most of the government heads up and down the Americas are in on it.

While the networks broadcast special musical highlights, top artists make feature appearances, and radiomusic men do their part, the real celebration occurs in local communities where schools, churches, clubs and musical groups of all kinds get together. Festivals and contests and rousing concerts are heard; if music hath charms, the week of May 4-10 will furnish a classic exhibit of them.

## Television in 1942?

Hope for FCC authorization of commercial operation of television stations, permitting the sale of television receivers on a limited merchandising scale, is now centered on a date somewhere around January 1, 1942. When the NTSC hearings at Washington



Phillip R. Mallory, president of P. R. Mallory & Co., Indianapolis, whose company this month celebrates its 25th anniversary of entering business.

broke up March 24, there was the feeling that FCC policies might be announced some time in the late Spring, with 4 to 6 months' allowance for the industry to get ready for television production. Any date falling before Christmas would interfere with the holiday radio trade, but a January "commercialization" go-ahead could start off 1942 as the beginning of the long-awaited television era.

During the NTSC hearings, recommendations were made for a new standard of 525 instead of 441 lines, with new synchronizing control, and for frequency-modulation sound to accompany the amplitude-modulated video signal.

## Portables in the Spring, Tra-la!

"I'm starting to sell quite a lot of portables to baseball fans—they take them along to the games and tune in because they want to get reports on other games being played elsewhere at the same time."

This dealer also reports that as Springtime hits the big cities, a great many people will want the sets to use on the roof-tops. Apartment dwellers spend a lot of time up there, sunning themselves, and they've found that a little radio is the best possible company.

Another market for the small sets was mentioned here; groups of employees who retire to a lounging room for lunch or for rest periods. They chip in and buy radios, so they can have music and news as a part of the relaxation.

This retailer says that portables with phono attachments will be more important this year, because people are in-



Larry Gubb, Philco's executive vice-president who declares: "The tide which swept compact radios into popularity is now surging up on portables."

creasingly interested in records. He says that interest in all portables is on the boom, however, because of the war news.

#### SKIRT TRADE

Women buy a big part of the portables, it was pointed out, and when you sell them, you must be careful about the matter of what they (the radios) weigh. Women often think that they are too heavy, the regular sized ones. So there's no point in letting her handle the set in an awkward position that serves to accent its weight; let her take it out of your hand or from a low counter. If she still objects to the weight, sell her a camera-sized job.

As you will be able to see from the reports on the "New Products" pages of this issue, dealers have a terrific advantage this year in the performance and convenience features of new portables. The new units have extra power, versatility, and eye appeal.

#### Nice Work, and You Can Get It

Sound men are showing an extraordinary interest in installing P.A. equipment for fashion shows. They say it's a new and very pleasant market to develop, and the chuckle means that they're thinking of those eye-filling dolls who do the modeling. Imagine an afternoon backstage, stringing the wires among the shapely blondes. It's a chance for a young engineer to step out of his class.

To get back to business, and to follow some trends already started by Jay Thorpe in New York City, you can see that the matter has endless possibilities. Bathing suits are paraded against a background of beach-scene murals and amplified sounds of rolling surf. The horsey togs are



E. A. Tracey, new chairman of the board and general manager of Majestic Radio & Television Corp. (See p. 23.)

trotted out amid the clip-clip sound of horse's hoofs, and the yacht clothes are shown along with the ringing of ship's bells. The fashions for air travelers are matched with the roar of planes, and the night-club clothes seem right at home amid the cafe chatter supplied by the loudspeaker.

#### Radio Techniques in Production and Defense

With electronic applications of radio equipment occupying more and more attention from the radio trade and industry, the series of Radio Magic program topics presented each week over WJZ and some 50 stations of the NBC Blue network, are attracting the interest of both general public and radio men.

These weekly programs at 7:15 p.m. Eastern Time (6:15 p.m. Central Time) are conducted by Editor O. H. Caldwell of RADIO TODAY. Already some seventy of these Radio Magic programs have been presented, all on different applications of radio tubes in entertainment, education, science, industry and everyday life.

Topics scheduled for coming Friday evenings are:

- Apr. 11—Automobile Radio. News and Entertainment as you Drive Along.
- Apr. 18—New Electronic Power Sources. Smashing Atoms with Cyclotrons.
- Apr. 25—Campus Broadcasting. Thirty colleges Have 1-watt Networks.
- May 2—Testing Defense Armament by Radio Methods. Speeding Production.
- May 9—"Black Light" from Radio Sources. New Industrial Uses for UV.
- May 16—Electricity from the Human Brain. Detecting Cerebral Flashes.
- May 23—The New X-Rays. Electronic Applications in Industry.
- May 30—How Radio Devices Aid the Press. Facsimile and Photo-engraving.



Arthur Moss, former president of Electrad, Inc., who has resigned as executive secretary of the National Radio Parts Distributors Association, after building up its membership to 200.

On Sundays, at 12:30 p.m. these Radio Magic programs are repeated to Europe and South America over NBC's 50-kw. beam station, WNBI (17.78 megacycles).

#### Syracuse Dealer Tries a Pair of Ideas

From Clark Music Co., Syracuse, N. Y., come reports of a "live" window display which cost little, but proved to be of exceptional value. The store hired a commercial artist to sit in the window and paint, for hour-long periods in the morning, afternoon, and at night. He sketched a variety of passers-by, landscapes, radio personalities, and comics, with a number of radio units shown in the window around him.

Crowds attracted by the stunt could get sample souvenirs of the artist's work free by stepping into the store, and having a look at the new radio models there. Only cost of the whole



Ray Simpson, president of Simpson Electric Co., Chicago, manufacturer of test equipment, announces that the 5-year old firm has already earned a big expansion. (See page 23.)

promotion, to the store, was the artist's fee.

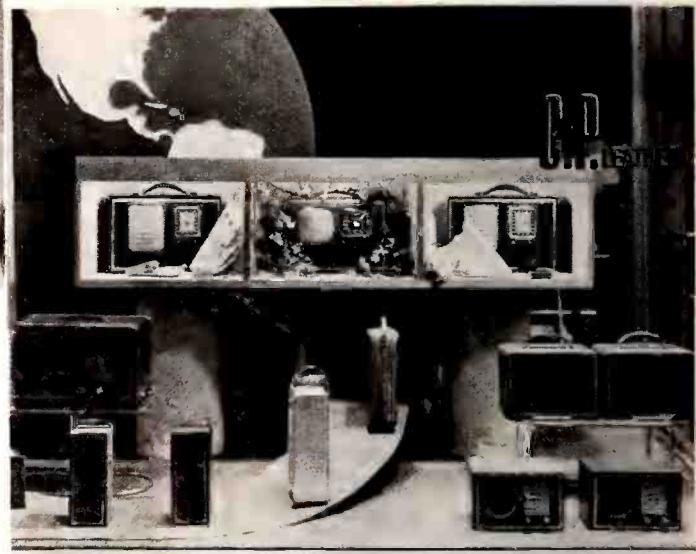
Clark's also attracted wide attention with another promotion, this time a tie-up with the local Schine theatre. A phonograph-radio model was placed in the lobby, playing records from the musical picture being shown at the time. The unit was equipped to play this music for an uninterrupted hour at a time, and it was placed so that it could be heard outside the theatre, as well as in the lobby. An accompanying placard suggested that prospects drop in at Clark's, to see the newest in records and radio-record equipment.

AS A SUCCESSFUL  
*Radio Dealer*  
**I SELL  
PORTABLES**

1. By giving them prominent display space in my store.
2. By having a good assortment of colors and styles.
3. By keeping them in my windows,—with timely displays.
4. By putting them on the streets in the hands of a "character," a clown, hobo, cowboy, drum majorette, or others.
5. By dramatizing their "news value,"—by associating them with the pictures in the news from papers, Life, or other sources.
6. By taking them to the "club," to parties, to the women's clubs.
7. By sending them to the golf links with the caddies.



One of the best bets for the radio dealer is good window display, illustrated at right by storefront of C. P. Leathercrafts, 650 Madison Ave., NYC. Note center shelf with indirect lighting.



8. By taking them fishing, to the ball game, to pleasure resorts.
9. By pointing out their "gift value" to young and old,—man, woman and child.
10. By using direct mail to my full list, one card a week, one use suggestion to each card, and a "buy it" story on every card.
11. By running a high-school contest with a portable as

the prize, for the best 100-word story on "Why I want a portable radio, and how I'll use it."

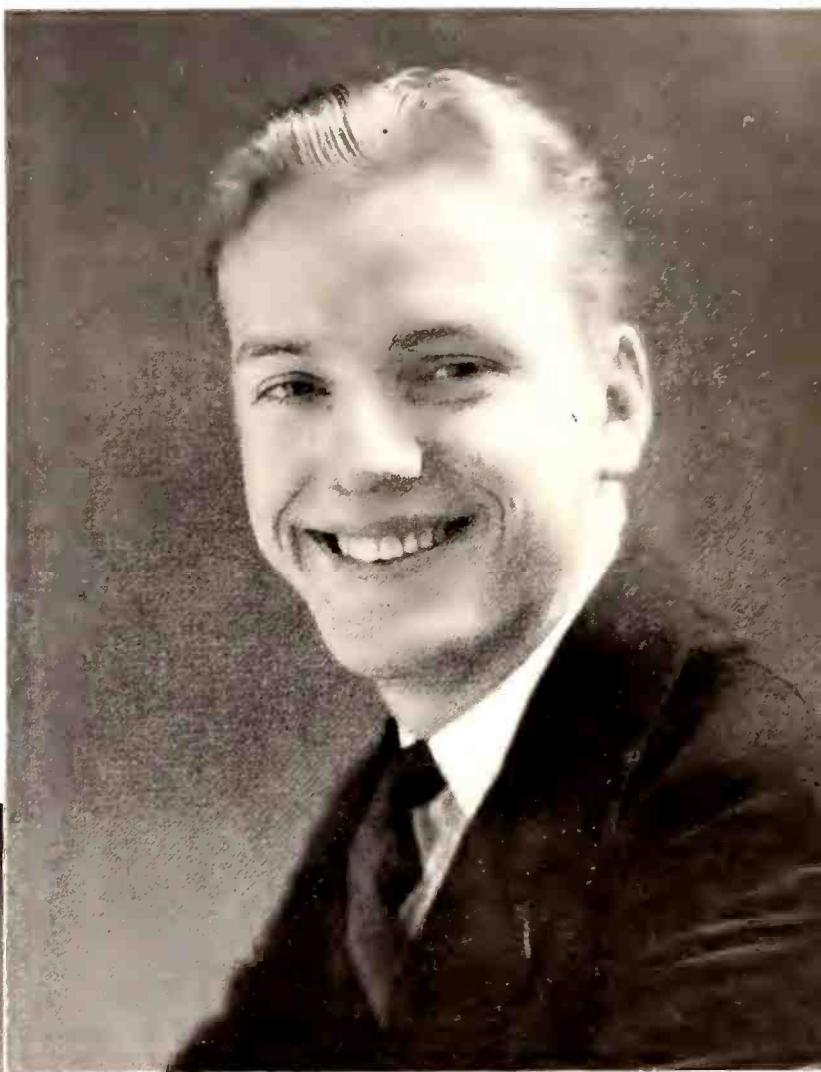
12. By publicizing the contest, dramatizing the prize presentation, featuring the uses stated.
13. By following up the families of the contestants.
14. By carrying a portable wherever I go, and USING PORTABLES, TALKING PORTABLES, and so SELLING PORTABLES!

AS AN EXPERIENCED

# *Service Man*

# I SELL PORTABLES

1. By carrying a portable with me wherever I go.
2. By showing one on every service job I handle, and demonstrating the brand new features of the season.
3. By leaving one with those service customers who show interest.
4. By demonstrating portables to all the business men in my vicinity, and leaving some for display purposes.
5. By demonstrating them to boat owners and sportsmen, for entertainment and for use as a radio compass.
6. By renting portables in the hospitals, giving 10% to the hospital fund.



"Always carry a portable on all service calls" is the key to servicemen's selling a set to service customer, when he makes repairs or replacements. So keep a portable in hand for all service contacts.

7. By using direct mail to my full list, and telling their story step by step, use by use.
8. By making my new Spring business card in the eye-catching form of a "portable".
9. By renting portables at the beaches, lakes, vacation resorts, and dramatizing the idea that everyone now wants to hear the world news.
10. By displaying them in the local Draft Board Headquarters.

11. By suggesting portables as a gift, to the family of every draftee.
12. By getting a draftee to sell them in camp.
13. By using them to locate interference.
14. By telling everyone I can about the many uses of personals and portables. The MORE I TELL, the MORE I SELL.



# A MESSAGE TO CAR OWNERS

NEWS AND ENTERTAINMENT FOR DRIVERS ON THESE FINE SPRING DAYS

AS BROADCAST OVER THE NBC BLUE NETWORK FRIDAY, APRIL 11, 7:15 EST. BY EDITOR CALDWELL OF RADIO TODAY

This is the season when people begin to think more about their automobiles—for Springtime jaunts and weekend trips, and in preparation for summer vacation tours.

Now, as you plan for real enjoyment of your car, this spring and summer, don't forget that wherever you drive—in town, in the country, in the mountains or at the shore—the interior of your car is *always* filled with miraculous music and latest news. It's all there, all the time—inside your sedan or coupe, whether you hear it or not. It filters into your car windows, right through the glass; it surrounds your car no matter how isolated the road or how lonely the parking spot. By radio magic the whole world is right in there with you—however far "away from civilization" gasoline may take you!

## MUSIC ON WHEELS

But, of course, you'll have to provide a radio set to pick up these magic waves from the air around your car. And once installed (which takes only an hour or two, with modern automobile radios) such a radio set will open up for you a whole new world of driving pleasure, as you listen to music and news while you speed along.

No longer need you be separated from the air features you like.

You can enjoy your favorite programs wherever you are. You can get the news as you drive to work or business. You can pick up market reports as you speed to town. You can have musical companionship on long tours.

Automobile radios have been improved a lot in the last few years. They are powerful, compact and good looking. Now you can get control

panels which exactly match the fittings of your car. Most of the new car-radios are tuned by push buttons. With no dial to watch, these buttons can be manipulated without distracting attention away from the road, even for an instant, and so they contribute greatly to the safety of driving.

Some car radio sets have a separate push button for each favorite station. Others employ a single push button. Press it once and you hear station No. 1. Press again, and the radio is tuned to Station No. 2, and so on. With these modern auto radio sets tuning is convenient and almost automatic. Volume controls are handy, too, and can be operated without taking any attention from driving or removing the eye from the road.

One new combined volume and station-change control is worked by a foot-button on the floor; if you want to lower the volume of the radio in order to listen to conversation or traffic signals, lightly pressing your foot on the floor button reduces the radio volume. By pressing harder on the foot button, stations are changed as with the usual push button control.

## SHORT-WAVE, TOO

And if you are a short-wave fan, you can now listen to Europe direct from your car, just as you listen on your short-wave set at home, if you specify one of the new car sets with short-wave band, or have one of the short-wave adapters added. Such short-wave listening is a great advantage in regions where reception is poor or static is bad on the regular broadcast band.

As with home radios, a good antenna is important for your automo-

bile radio. Most popular and effective nowadays are the rod type antennas mounted on cowl, roof or fender. Most of these have telescoping parts and can be run up or down by hand. In the city, where the intensity of radio programs is high in field-strength, the antenna will usually work well in its shortened position. But out in the country, or in remote sections far away from broadcast stations, it may be necessary to extend the antenna up to its full

height several feet above the car roof. Of course, care must be taken to shorten it again before attempting to drive the car into a garage with a low doorway. Some of these rod antennas may be raised and lowered from a crank on the dashboard.

## ANTENNAS

These rod-type antennas seem to give much more satisfactory service than the under-running board antennas so popular a few years ago. The running board antennas had the advantage of not being seen, but they did not pick up as strong a signal to start with, so the radio set was always at a disadvantage. In addition such an underslung antenna invariably picked up a good deal of tire static and brake static, and these forms of interference were usually heard in the radio set, spoiling reception of the broadcast program.

Tire static may be especially bothersome in cold dry weather, but usually disappears in wet rainy weather. As the rubber tire is separated from contact with the pavement, it becomes charged with electricity and these electrical charges are carried up and may discharge through the wheels or under the fenders. Such almost invisible flashes of static electricity, discharging near the antenna may produce almost the same effect in the set as a far-off lightning discharge, and so become very annoying when heard as a rhythmic gunfire of noise.

## BRAKE STATIC

The brake-bands bearing on the spinning brake drums even loosely when the brakes are "off" may also

(Continued on page 19)



Portable radio is a favorite at Ft. McClellan, Ala., where Pfc. Charles Ullrich took this photo for "Radio Today."

# SETS FOR SOLDIERS

## DEALERS HEAR WAKE-UP BUGLE FOR NEW RADIO MARKET

The call to arms in the United States has concentrated thousands of men in the Army Camps of the country. The total is expected to be around 1,500,000 by July, including nearly 800,000 Selective Service trainees.

Most of the names of the new Army men are printed by the dozen in local newspapers, as they are called, thus providing the community radio dealer with the first specific information as to which families and friends are affected. These lists can be regarded as the starting point for a big sales job on small sets for soldiers.

### MILITARY MARKET

The recruits have a reasonable amount of time to listen to a radio. "After recall in the afternoon and all evening up to taps," is one report, and another is that "most of the listening is done after supper, but we also turn the sets on in the morning and keep them going until we fall in."

Meanwhile, dealers and servicemen are running ads in newspapers published for the soldiers; manufacturers are bringing out sets specially recommended for the trainees; new programs are going on the air to interest the recruits.

In RADIO TODAY'S special survey on the subject, it was revealed that radio ownership and listening conditions vary with the posts, but typical conditions are presented in an effort to guide dealers in their sales efforts. Many sales will be made to relatives or friends in the dealer's community who want to send sets to men in camp; other sales will be made directly, by retailers in towns near the posts. According to a report by Dun & Bradstreet, there are 142 of these "nearby" towns—cities in the trade

areas of the 68 camps in the U.S. which have been expanded to handle new recruits.

In cases where the radios are sold to people who will give them to soldiers as gifts, the radio man feels a particular need for information on which types of sets are appropriate, and why.

Selective Service heads in New York City advise that the soldier who is to get the set should be consulted first, by the donor. In this way the camp conditions, as to space, power, and general regulations, can be determined. Lt. Col. Frank E. Bridgetts, Morale Officer of the 2nd Corps Area, emphasizes this point that the matter is up to the various post commanders. Conditions are not uniform.

### WHAT THEY WANT

A typical report from a trainee, sent direct to RADIO TODAY from Ft. McClellan, Alabama, sums up the radio situation in his camp as follows:

"The most appropriate radio for us here is a 3-way portable. When we go on maneuvers, we will not have electricity available in our quarters, and batteries will be used. Now, however, we use current because we get more volume that way. All tents have AC current. About 75 per cent of the sets in use here are 3-way portables; the others are small electric sets and straight battery portables.

"Everybody here is allowed to have a radio. In some of the tents where nobody had a set, the men chipped in and bought one.

"In my company of 100 men there are now 25 radios. Total number stationed at the Fort is 18,500 National

Guardsmen and trainees, not counting the Regular Army Quartermaster Corps.

A check on the use of radios in other companies at Ft. McClellan, which was made specially for RADIO TODAY, shows that in the companies having about 100 men, the number of radios now in use ranges from 7 to 25. This report also says that "the men are encouraged in the use of radios" and mentions that they are being attracted by radio set sales being staged by stores in the nearby city of Anniston.

### MORE SETS NEEDED

From Georgia comes a report from an officer who has been stationed at several camps and knows what general conditions are. He says that "there are plenty of radios in the Army—I should say that about one man in every five has a set, and of course all the officers are equipped.

"I do not know of any restrictions in any camp against the use of radios . . . it is possible of course that in some posts there may be local restrictions in cases where the lines are overloaded, but this is probably temporary. In these cases the battery-AC-DC set would best serve the purpose.

"All of the camps have electricity, and the compact set is satisfactory. Most of them seem to be of the AC-DC type. They should be fairly sensitive because many of the Army posts are far away from the big broadcasting stations.

"Each man has a foot locker and when he goes on maneuvers he can normally stow a small set there. If it is only an AC-DC set, it would probably not be of any use when the Army takes the field."

# OUTDOOR SOUND JOBS

**Auto parking lots, loading platforms, carnivals, parks, industrial plants—these are just a few of your outdoor prospects.**

Outdoor sound jobs right in your town are beginning to shape up for the Spring and Summer months. There are many local activities that are being planned now which can be added to your list of prospects for the outdoor months. Right now is the time to find out when and where your town is going to have band concerts, conventions, company "outings" and picnics, carnivals and circuses, celebrations, etc.

Lots of industrial sound jobs are waiting to be sold in every town. Take automobile parking lots for example. These parking lots and auto garages are finding out how valuable and useful an intercommunicating sound system can be for getting cars out fast in rush hours. The car-lot can also be operated with a smaller number of men when they have two-way sound to help them.

A typical parking lot sound installation at Bloomington, Illinois, is shown in the accompanying photographs and block diagram. This installation is unique in that it takes care of the auto handling problem for a service station, a car washing building, and the parking lot. Cars left in the parking lot can be picked up by a service station attendant for a lubricating job, battery test and charge, and other routine maintenance. Or, the car can be picked up and taken to the washroom, cleaned, and then returned to

the parking lot before being called for by its owner.

This combination of intercommunication units speeds the work through the three departments, saving time and money.

## THREE-WAY COMMUNICATION

The main communicator No. 1 at the filling station is used for two-way communication between either the parking lot office, or the car washroom. The distance from the service station to the parking is about 300 feet, and it is about 150 feet to the washroom.

Station No. II at the office of the parking lot can be used for two-way conversation with the gas station and two-way conversation to a lot-speaker. Messages from the parking lot to the washroom are relayed through station No. I in the filling station. The No. II station is shown being operated by a parking lot attendant.

In connection with the sound system at the parking lot, an outdoor calling and talk-back speaker is mounted at the far end of the parking field. It is used to call the man who brings the cars in from the far end of the lot. Thus in busy rush periods, time is saved in bringing cars up to the office and the waiting customers.



Station attendant calls from office to man on the lot for car tagged "No. 348." Sound speeds up handling.

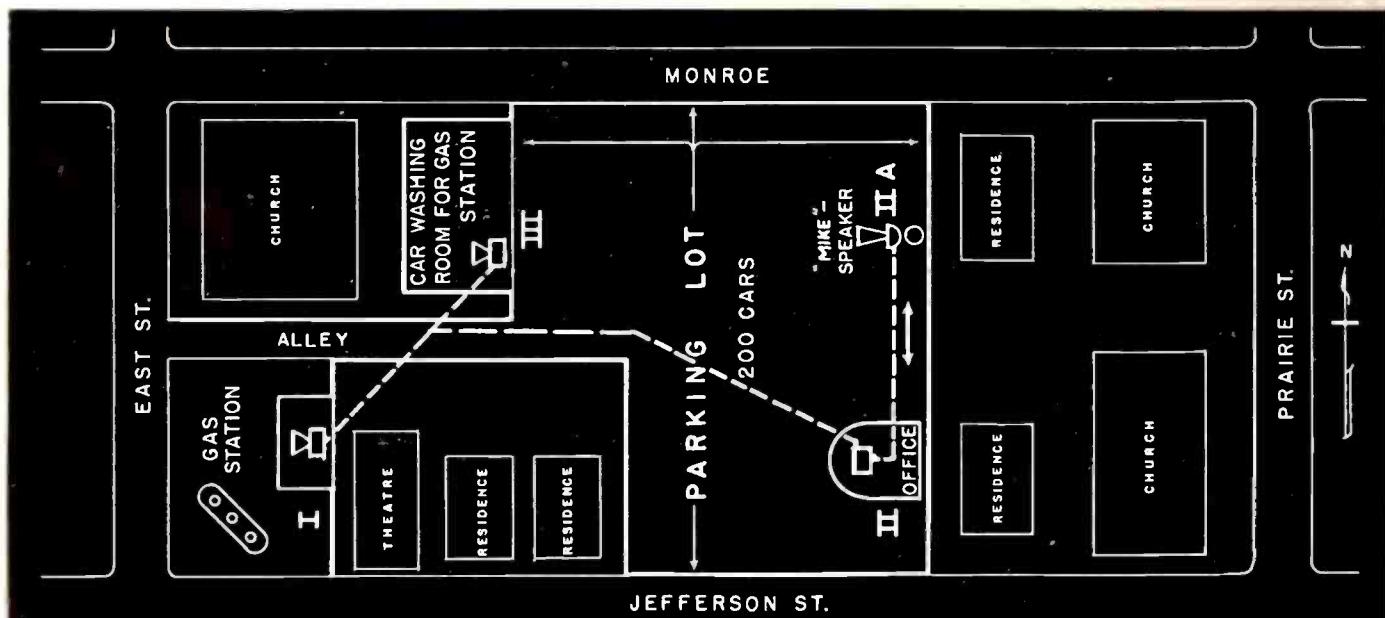
## FIELD TALK-BACK

In actual operation, the procedure is for the car owner to deliver the stub of his receipt check to the attendant at the parking field office who can tell from the stub number in just what part of the lot the car is parked. If it is down at the far end of the field, the attendant relays the stub and license number through the trumpet speaker (shown mounted on the light pole) at the far end of the field. The man stationed there then picks out the car and brings it up to the office. The speaker is used as a dynamic mike for talk-back and has a pick-up range of 20 to 30 feet.

A block diagram of the layout of this sound communication system shows the positions of the various units.

Intercommunication and sound systems similar to the one described are being successfully installed all over

Diagram of sound-intercommunication system showing relative layout of parking lot, filling station, and auto washing building. Station II A is combination mike-speaker for communication between office and man on the lot. See text for details.





Speaker IIA (see block diagram) operates as "mike" on talk-back from the field to the office.



An additional call speaker is mounted over the door to contact office man when he is taking charge of cars in his end of the lot.

Industrial sound calling system at gasoline and oil loading depot serves to instruct drivers about the amounts of fuel to be taken on. Dispatcher can also call to barge captains unloading oil 275 feet away at company docks. Atlas Sound speaker circled at left.

the country by sound and servicemen. There are many opportunities right in your town for these jobs. The old adage still holds, size up the installation you would like to sell, get all the essential figures about the job, and then present your proposition. The work is waiting to be done, the equipment is available, and the profits can be yours.

#### LOTS OF JOBS

Department stores that have arrangements with parking lots or garages for the convenience of their customers, could add to their service by having an intercommunicating system to call for cars to be brought around in bad weather.

Bus terminals, "super markets," meat packing plants, warehouses, trucking companies, airports, industrial plants, foundries, and many other businesses right in your town could do business more efficiently with a sound-communication system. Tell 'em how.

#### DISPATCHER'S MIKES

Coal and lumber yards also are known to sound operators as excellent prospects for outdoor p. a. systems. A slight variation of this type of application, is a recent job sold by the Windsor Radio and Sound Service to the Shell Oil Company for their Newtown Creek oil depot in Brooklyn, N. Y.

This oil depot, which is a supply station for a major part of the Brooklyn territory, has facilities for loading gas and oil on twelve delivery trucks, simultaneously. About 275 feet from the dispatcher's office, the oil company has a dock for tankers which pull up alongside in the Newtown Creek for delivery of petroleum products to the underground tanks in the supply depot. The station also has a number of office buildings, garages, warehouses, and repair shops which spread over an area of three city blocks.

The entire sound system consists



of: two microphones and stands alongside the switchboard in the dispatcher's office; a 30 watt amplifier complete with three-mike inputs and speaker plug equipment; and four Atlas Sound "Marine" speakers mounted outdoors on the various buildings.

The speakers had to be absolutely weatherproof so that moisture and rain would be kept away from the cone inside the horn. It was also necessary for the speakers to project the dispatcher's voice for distances up to 300 feet.

Tests were made with various types of cone projectors for coverage angles and general sound distribution, until the four speakers were properly placed to cover the entire area.

In view of many installations now being made all over the country of this type, especially in national defense plants, it would seem that the industrial market is just opening for high-powered paging systems. This field is ripe, right now, and it is well worth time and effort on the part of the sound salesman.

Lots of other markets are opening up now for sound equipment. Carnivals, and circuses are getting under way in some of the large cities and it won't be long before they are touring over all the country.

#### SOUND FOR SHOWS

Circuses and carnivals will have their promotion and publicity managers in town a week or so before the "big show" arrives. Get after the publicity manager and rent your sound trucks for the local promotion. A good recording of a steam calliope would be a big attraction and certainly help to rent your PA equipment.

Ballyhoo, ticket selling, and other crowd-attracting schemes are all revolving around sound, and plenty of PA systems can be sold and rented. Many of the smaller carnivals operate with acts and concessions which rent

(Continued on page 31)



# EXTRA RECORD SALES

**The traffic in the disc department may be interested in quick suggestions by dealers**

While the radio dealer faces his record customers day after day, he enjoys one of his widest-open opportunities to develop extra sales. Buyers of discs come in such numbers that they are an important group, in terms of extra items that they may buy.

Quick, friendly suggestions may serve to hold the interest of the customer while he is exposed to more records and more of the dealer's associated merchandise.

RADIO TODAY has watched record salesmen in action, and has collected a number of these suggestions. Here-with are 26 different ways to lead the customer on into further consideration of things that he did not actually plan to buy. Which ones to use, of course, depends upon the types of prospects and the circumstances.

## SALES INVITATION

It is supposed that a customer has come into the store for a certain popular record. Here are the possible things to say, while the order is being filled:

1. "We have another new record by that artist. We'd like you to hear it."

2. "How's your supply of needles? We want to keep you provided with good ones."

3. "Probably you already have a good record-player or combination, but we have a brand new model here which a lot of our customers are interested in. If you're not in a hurry."

4. "Are you at all interested in classical music? You know, the prices on those records are 'way down, now."

5. "Could you take an extra minute to look over our lists of new records? There may be some more that you'd like."

6. "Do you ever play novelty songs? A new one has just been unpacked and you might enjoy hearing it."

7. "We have radios here, too, you know. Is there anything we can do to help you with your receiver?"

8. "Will you take along these folders? Look them over at your leisure and let us know if you see something you'd like to hear."

9. "Do you have an automatic record changer at home? We'd like to show you something about how the new ones work, if you're a little tired of changing your records."

## Good Sales Bets Among New Records

BING CROSBY with Bob Crosby's Bob Cats and the Merry Macs singing *Delores*—Decca 3644.

CHICK BULLOCK and his All-Star Orchestra playing *Amapola* (other side, *There'll Be Some Changes Made*) with vocal by Mr. Bullock—Okeh 6100.

ENRIC MADRIGUERA and his orchestra playing *Intermezzo*—Victor 27355.

GLENN MILLER and his orchestra playing *Perfidia* with VR by Dorothy Claire and the Modernaires—B11095.

BENNY GOODMAN and his orchestra playing *Amapola* (other side, *Intermezzo*) with VC by Helen Forrest—Columbia 36050.

GENE KRUPA and his orchestra playing *Let's Get Away From It All* with VC by Anita O'Day—Okeh 6130.

MILDRED BAILEY with the Delta Rhythm Boys singing *Georgia on My Mind*—Decca 3689.

KAY KYSER and his orchestra playing *The Wise Old Owl* with VC by Sully Mason—Columbia 36051.

CHARLIE BARNET and his orchestra playing *The Captain and His Men* with VR by Lena Horne—B11081.

10. "I wonder if you'd like to tell me about your record library at home . . . is there plenty of room for all your numbers? Maybe we could show you a record cabinet."

11. "Have you ever thought about starting a collection of records, by the artists you like? It's a pretty smart thing to do, and we'd like to help you."

## GETTING LEADS

12. "Would you mind telling me whether you belong to a record club? Our shop might be able to help the group along."

13. "That artist is on the air on Mondays, you know. If you hear him play a brand new tune, we'd appreciate your telling us about it, so we can stock it."

15. "Would you like to hear how this record sounds on one of our new 1941 combinations?"

16. "What other outfits do you like? Benny Goodman has a new vocalist who's getting over nicely. Like to hear one?"

17. "One record company has brought out an interesting album of that artist's records. Let me show it to you."

18. "Do you happen to be a musician yourself? We have some new records of special value for those



Quick service and maximum convenience for record buyers were built into this new radio-record section at J. K. Gill Co., Portland, Ore. Long counter is flanked at left by record demonstration rooms, at right by radio rooms, all sound-proofed.

working with most of the instruments."

19. "Are you hearing all your favorite tunes on the air these days? You can always get them on records, you know."

20. "I've got something new today, that you might like to know about. It's a lightweight pickup with a permanent sapphire needle, and we can probably install it right on your record player. Would you step over here a minute?"

#### NEWS FOR THE BUYER

21. "We've just had a new report on the Hit Parade ratings, and 'Frenchi' is now at the top. If you like that tune, can you take the time to hear the newest arrangements of it?"

22. "By the way, did you notice the record rack in the window? It's a good way to keep your music straight, and it's a bargain."

23. "I hope you don't mind my asking whether you happen to have any youngsters at your home. We have a stock of children's records that is very complete."

24. "This tune, you probably know, got its start in that movie, 'Hit Parade of 1941.' Remember when they played 'In the Cool of the Evening' in that show? Maybe you'd like to hear that one, too."

25. "This favorite of yours played in one of those 'all star' specials a while back, and it's a fine recording. Like to hear it?"

26. "We'd like to make a regular customer out of you. Why don't you leave your name and address so that we can mail you all the record news?"

#### Columbia Launches Big-Scale Promotions

Columbia Recording Corp., Bridgeport, Conn., has taken a number of major steps to create new sales of records, with special emphasis on its "Masterworks."

After lining up six of the country's ten major symphony orchestras to record exclusively for Columbia Masterworks, the CRC president, Edward Wallerstein, announced that the company would now concentrate on an operatic repertoire "second to none." New contracts for leading opera talent include those with Lotte Lehmann, Rise Stevens, Jan Kiepura, Robert Weede, Rene Maison, and Salvatore Baccaloni.

Columbia has launched for its Masterworks a national magazine advertising drive described by Patrick Dolan, CRC ad manager, as "the most ambitious drive ever undertaken in the record industry." Distinctive full-color page ads will run in Life, Time, Newsweek and The New Yorker, promoting classical records, until September. The campaign also includes recorded programs on 60 radio stations, local newspaper cooperative dealer advertising, and elaborate point of sale materials.

To replace the usual kind of  
(Continued on page 21)



- Think of it, Mr. Retailer, and you, Mr. Serviceman—your job of changing radio push button controls in the re-allocation of broadcast frequencies makes you welcome everywhere. Instead of ASKING to come in, you are now INVITED to enter the homes you want to reach with any product or sales message. It's the opportunity of years.

#### Here's an Important "Sales Service" Suggestion



#### LOW PRESSURE CRYSTAL PICKUPS

By suggesting the replacement of conventional playing arms on electrical phonograph equipment with Astatic's Low Pressure Crystal Pickups, you are rendering phonograph owners a real service and helping yourself. Low Pressure Pickups with permanent Sapphire points and only one ounce pressure on recordings do away with the buying and changing of needles and keep records like new for years. This replacement job, with a sales and service profit, will be welcomed by many set owners. Try it. See for yourself.

#### Descriptive and Technical Literature is Available

In Canada:  
Canadian Astatic, Ltd.  
Toronto, Ont.

Licensed Under  
Brush Development Co.  
Patents





#### **Ansley Oxford Dynaphone**

★ An 8-tube automatic radio-phono with short-wave and standard broadcast bands—540 to 1,650 kc. and 6 to 18 mc. AC or AC-DC. The 2 lower simulated drawer faces form a panel which drops open to reveal the speaker and controls. The hinged-table top lid houses the automatic record changer which handles 10 or 12 in. records. Standard finish, Garnet mahogany, other finishes at extra cost. \$129.50 for AC and \$144.50 for AC-DC. Ansley Radio Corp., 4377 Bronx Blvd., New York, N. Y.—RADIO TODAY.

#### **Emerson model 428**



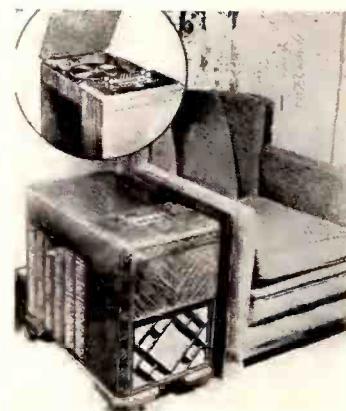
★ A 3-way portable with 6-tube superheterodyne circuit, R.F. amplifier. 184 to 555 meters. 6½ in. P.M. dynamic speaker. Large built-in loop antenna. Night-glo pointer on dial. Luggage type case in saddle-tan simulated leather, Kaval-grained decorative banding on ends and top. Special removable hinged front. \$29.95. Emerson Radio & Phono. Corp., 111 8th Ave., N. Y. C.—RADIO TODAY.

#### **Andrea table radio**

★ Model 6H44, a 6-tube, 3-band AC table model in walnut cabinet. 540-1,600 kc; 2-7.7 mc.; and 7.6-24 mc. coverage. 6 in. electrodynamic speaker. Self-contained loop antenna. Superheterodyne circuit. Phono-television jacks. \$44.95. Andrea Radio Corp., 48-20 48th Ave., Woodside, L. I., N. Y.—RADIO TODAY.

# **SPRING SELLERS**

#### **Howard chairside model**



★ Howard "Chum" recorder, a 7-tube set with 2 bands, standard broadcast and short wave. Records radio programs direct from the air, through crystal mike, or radio and mike mixed. Record changer plays 10 and 12 in. records. Cabinet available in walnut, mahogany or blonde mahogany. Storage place in side of cabinet. 12 in. electrodynamic speaker. Howard Radio Co., 1731 Belmont Ave., Chicago, Ill.—RADIO TODAY.

#### **Fada 209 series**



★ Two 5-tube AC-DC superheterodynes in walnut bakelite (209W) and ivory plastic cabinets (209V). A.V.C., built-in loop antenna, 4½ in. full response dynamic speaker. Covers American broadcast; 538 to 1,680 kc. 209W, \$9.95; 209V, \$12.95. Fada Radio & Elec. Co., Inc., 30-20 Thompson Ave., L. I. City, N. Y.—RADIO TODAY.

#### **Pilot T-173**

★ The newest addition to the "Super-Challenger" series is T-173 an AC-DC superhet table radio with 11 tubes, 3 bands, 10 in. speaker. Features a built-in loop and provides for external aerial, and Gyrotuner. Phono, television and FM jack. Tuning range—530-1,770 kc.; 3.20-9.85 mc. and 8.85-29.0 mc. \$99.50. Pilot Radio Corp., 37-06 36th St., L. I. City, N. Y.—RADIO TODAY.

#### **Arvin plastic set**



★ A 4-tube AC-DC compact with superheterodyne circuit. Electrodynamic speaker. Band coverage from 540 to 1750 kc. 6½ in. wide, 5½ in. high, 3¾ in. deep. 20 ft. attached aerial. Unbreakable one-piece cabinet in ivory (No. 422A), \$7.95, and in brown finish (422), \$6.95. Available at slight extra cost is suede carrying case. Noblitt-Sparks Industries, Inc., Columbus, Ind.—RADIO TODAY.

#### **DeWald "Jewel" model**

★ Five table models in catalin cabinets—alabaster with ivory, red or blue trim, onyx with ivory trim, maroon with ivory. Listed at \$19.95, the set is an AC-DC superhet and has 5 tubes, tilt-top slide rule dial, large dynamic speaker, built-in Looptenna. General broadcast and extended state police band—170 to 555 meters. DeWald Radio Mfg. Corp., 436 Lafayette St., New York, N. Y.—RADIO TODAY.

#### **Philco portable**



★ One of Philco's new portable line is model PT-87, a 5-tube low priced set in cowhide graining with ivory piping, real leather handle, encased in reddish brown plastic bezel. Built-in loop aerial, p.m. speaker. Philco Corp., Tioga & C St., Philadelphia, Pa.—RADIO TODAY.

## A MESSAGE TO CAR OWNERS

(Continued from page 12)

act very much like frictional static generators, and so may develop considerable static electricity which discharges through the underbody of the car, causing interference if the radio antenna is nearby. Such brake static can be eliminated by electrically bonding the brake parts together. But the simplest cure for all such interference arising from the moving wheels and tires is to get the antenna up above the fender and hood and so out of the field of interference. An antenna reaching above the fenders and cowl usually eliminates all such interference.

Various moving parts of the driving equipment of the car sometimes cause similar static. But these can all be eliminated for the most part by putting the antenna aloft.

### TRUCKS AND TRACTORS

Passenger-car owners are not the only people who enjoy automobile radios in their cars nowadays. Many big trucks are equipped with auto radios. Sometimes the drivers themselves have these installed, for companionship during their long drives. But in many cases the truck owners after careful study, have put in the radio sets as a safety precaution, to help keep their drivers from falling asleep during tedious night runs.

Tractors and road machines now are often equipped with auto radios. It is a common sight to see a farmer plowing his east forty and listening to gay Manhattan jazz as he swings around the furrows.

And the next time you pass a road crew doing grading or pouring concrete, draw up close to the tractor or road machine and see if the happy driver there in his cab isn't happily listening to BMI melodies as he pulls his levers and gears.

### Marsh is Allied Sales Manager

News from A. D. Davis, president and general manager of Allied Radio Corp., 833 W. Jackson Blvd., Chicago, is that Walter F. Marsh has been appointed Allied sales manager of the Chicago metropolitan district.

Mr. Marsh has been in radio for 23 years, having had posts with RCA, Meissner, American Phenolic and other firms. He will take full charge of Allied's expanded salesrooms in Chicago, and will direct the industrial, sound and dealer sales.

### New Ken-Rad Rep

The Russ Diethert Co. at 7910 Drexel Ave., Chicago, has been appointed representative for Ken-Rad radio tubes in the southern part of Michigan, the Toledo territory and northern Indiana.

# NEW IDEAS . . . OLD IDEALS

*that's* Simpson



MODEL 310  
SIGNAL GENERATOR

Your kind of Signal Generator—designed down to the most minute detail for highest accuracy, greatest stability, minimum leakage and good wave form. Smooth vernier control permits close settings and knife edge pointer assures accurate readings. The big 9-inch meter dial makes it easy to read. Dealers net price \$37.50



MODEL 260 HIGH  
SENSITIVITY SET TESTER

A great value in a fundamental instrument—a high sensitivity tester for television and general servicing. Ranges to 5000 volts—both A. C. and D. C.—at 20,000 ohms per volt D. C. and 1000 ohms per volt A.C. Resistance readings from 10 megohms down to 1/2 ohm and five Decibel ranges from -10 to +52 D.B. Dealers net price ..... \$27.50



MODEL 300 TUBE TESTER  
A TYPICAL SIMPSON ACHIEVEMENT

Tests octals, single ended tubes, bantams, midgets, miniature, ballast tubes, gaseous rectifiers, Christmas bulbs, etc. Filament voltage from .5 to 120 V. Has three-way switching, neon short check, "good" and "bad" scale; percentage scale; tube charts in cover. Dealers net price ..... \$26.50

# NEW PORTABLES

## Philco portables



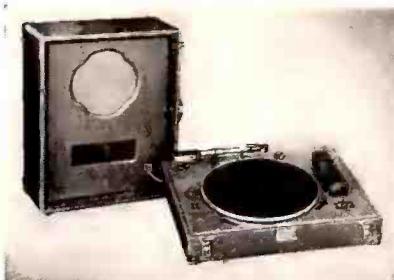
★ Philco has just announced a new spring and summer line of portable radios comprising 7 models. Model 853T, covered in cowhide graining, simulated cork-dial background and black letters, has a 7-tube circuit, built-in loop aerial. Provides for shortwave reception in addition to standard American broadcast band. Foreign stations named by countries or cities on the dial. Philco Corp., Tioga & Sts., Philadelphia, Pa.—RADIO TODAY.

## Sonora personal portable



★ A new AC-DC-battery plastic "Candid" with superheterodyne circuit, 5 miniature tubes, built-in Sonorascope loop, P.M. dynamic speaker. Deep-grey body, taupe-grey plastic hinged door. Strong carrying handle. 8½ in. x 5¼ x 4 in. Black shoulder strap available. Sonora Radio & Telev. Corp., 2626 W. Washington, Chicago, Ill.—RADIO TODAY.

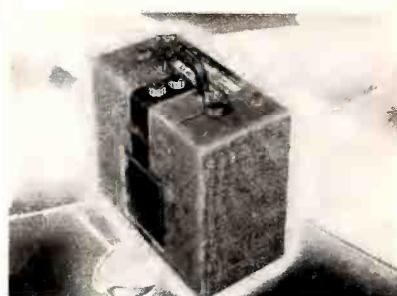
## Tokfone record player



★ Transcription player, TRP-15 has a dual-speed, AC-DC motor. 16

in. turntable, 33 1/3 and 78 r.p.m. 5-tube amplifier, 10 in. P.M. speaker, 50 ft. cable. Pigtex covered portable carrying case \$149.50 list. Regal Amplifier Mfg. Corp., 14-16 W. 17th St., New York, N. Y.—RADIO TODAY.

## Sentinel aircraft portable



★ Model 228-P, 2-band, 3-way 6-tube aircraft radio receives beam signals, weather reports and broadcast programs. Operates on self-contained batteries or on 110 v. AC or DC. Beam signal filter switch, headphone jack, automatic power switch. Large P.M. dynamic speaker. Aeroplane luggage case. Metal speaker screen. Sentinel Radio Corp., Ridge Ave., Evanston, Ill.—RADIO TODAY.

## Hallcrafters radio compass

★ Compact radio compass and receiver which uses signals from beacon and broadcast stations for direction finding. Tuning range of 220-540 kc, 535-1340 kc and 1200-3000 kc. Null indications provided by tuning eye and headphones. Switch-controlled "Static Filter." All operating power drawn from 6 v. battery. 6-tube superhet with tuned r.f. stage on all bands. Hallcrafters, Inc., 2611 S. Indiana Ave., Chicago, Ill.—RADIO TODAY.

## Knight 3-way portable



★ Model B17115 is a 6-tube, 3-way portable with special RF stage, "Magna-Beam" loop aerial, P.M. dynamic speaker. 540 to 1,650 kc. Drop-front disappearing lid with lock. Sturdy carrying handle and leather name tag. Two-tone brown and ivory leatherette. Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—RADIO TODAY.

## Emerson 1942 portable



★ One of new line is model 427, a 3-way portable with large P.M. dynamic speaker and tuning range of 184 to 555 meters. Built-in loop antenna. R.F. noise reducing amplifier. 6 tubes, superhet circuit. Two-toned simulated leather cabinet with tan levant-grained front and dark tan colonial-grained frame. \$19.95. Emerson Radio & Phono. Corp., 111 8th Ave., N. Y. C.—RADIO TODAY.

## RCA aviation portable



★ A 3-way portable receiver AVR-102 brings in important aviation information and standard broadcast programs. 2-tone airplane fabric case. Operates on self-contained dry batteries, or from AC or DC electric outlets. It has 6-tubes, 2-band superhet chassis with built-in static-limiter switch. Rubber-mounted chassis. Loop-antenna, P.M. dynamic speaker with metal grill in burnished bronze. Headphone jack. \$39.95 less batteries. RCA Mfg. Co., Inc., Camden, N. J.—RADIO TODAY.

## Western Elec. radio

★ A 3-band superhet midget radio receiver for aircraft covering 250-625 kc., 3,900-7,500 kc. and 6,750 to 12,200 kc. Constructed in 2 units—a radio frequency and an audio power unit. Provision for 2 crystal controlled frequencies. 24 v. dc. operation. Average sensitivity 5 microvolts. Weighs only 18 lbs. Western Elec. Co., Inc., 195 Broadway, New York, N. Y.—RADIO TODAY.

# RECORD NEWS



The "Star Spangled Soprano," Lucy Monroe, appears in colorful miniature on this counter merchandiser from RCA Victor, as part of the big promotion of her Red Seal record of "Star Spangled Banner" and "America."

## COLUMBIA PROMOTIONS

(Continued from page 17)

monthly record listings, Mr. Dolan announced a new promotion service for dealers wherein the listings are replaced by "sparkling, vari-colored mailing pieces designed to dramatize record merchandise rather than to catalog it." These colorful pieces will be issued monthly for each of the three classes of records, for counter use and for mailing. For the dealer himself to use is a new "Ready Reference Handbook," issued monthly, containing all Columbia and Okeh records released since the last catalogs.

## Decca Report Shows Record Growth

Report from Jack Kapp, president of Decca Records, Inc., 50 W. 57th St., New York City, is that sales of Decca discs during the first two months of this year were about 40 per cent over last year.

In the annual report of the firm, just issued for 1940, net sales for Decca for the year amounted to \$5,231,481. No comparison with the 1939 period can be made, because of a change in the company's fiscal accounting period. Report also said the total number of distributing branches is now 28. The number of popular selections in the Decca catalog is up to 7,000, besides 5,000 discs of other classifications.

## "Album of the Month" Plan Started

RCA Victor has started tests of an "Album of the Month" Club plan in Hartford, Conn., before launching the idea on a national scale.

Similar to "Book of the Month" Clubs, the plan offers each month, in advance of its normal release date, a Red Seal album selected by an eminent musical jury. Purchase of any four of these selections within a year's time carries with it a bonus of 25 per cent in additional Victor recordings. A further \$1, single, 12-inch, Red Seal record is offered to subscribers within the first month as an inducement to early action.

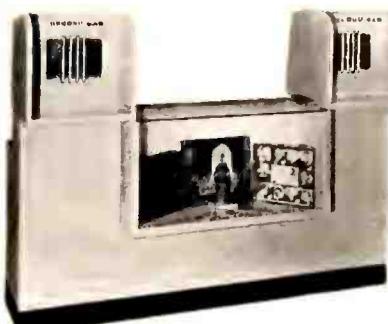
Extensive advertising schedules will announce the club to the Hartford area along with a wide variety of promotional aids. Dealers will get promotional kits including streamers, fliers, counter cards, booth hangers and envelope enclosures.

## Highest Quality Capeharts in Sales Trend

Excellent sales possibilities for the new Capehart radio-phonographs with the improved remote control devices were outlined in New York City recently by Pierre Boucheron, general sales manager, Capehart division, Farnsworth Television & Radio Corp., at a dealer meeting.

The new instruments are priced at \$2,000 to \$8,000; they have apparatus to start, stop, increase or diminish volume, and to select or reject either side of 20 recordings, by push button control. R. C. Vaughan, NY district manager, expects a double demand this year for these instruments designed for the highest quality trade.

You'll Sell  
**MORE RECORDS**  
at our improved  
**RECORD BAR\***



Reg. U.S. Pat. Off.

• The Bitter Record Bar makes and keeps your customers 100% record-conscious, because this efficient modern unit enables you to concentrate your record sales in one spot. Simplified stock-keeping and demonstration, too. Get the facts today!

*Finer reproduction assured! We now use a new high-fidelity amplifier, feather-weight pickup, and sapphire needle.*

### RECORD RACK

\$100. May be used separately, or as one unit of a large record department. Capacity: 500 10" records, 500 12", 75 Albums. \$44.00 F.O.B. Factory.

Write Today  
for Our  
Helpful Book  
"Starting Right  
in Records."  
No obligation



**A. BITTER CONSTRUCTION CORP.**  
Brewster Bldg., Long Island City, N.Y.

## Cash-In on "FM" With the NEW HOWARD FREQUENCY MODULATION RECEIVERS

Incorporating the most modern of all chassis, these new 14 tube FM-AM receivers are truly representative of HOWARD quality, beauty, progressive design, performance and value. Complete tuning range includes the Frequency Modulation band from 41 to 50 MC and three AM standard broadcast and short wave bands from 540 KC to 22 MC. The beautiful tone from the full fidelity, push-pull 12 watt audio system with separate bass and

treble controls and special 12" Jensen electro-dynamic speaker is a positive revelation to every music lover. A highly sensitive and selective superheterodyne circuit with two I.F. stages, brings in foreign and other distant programs with ease and clarity. The unchallenged value and desirability of the new HOWARD FM-AM Receivers can mean big profits for you. Send for the full information today!

MODEL 718-FM

\$109.95

Export and Pacific  
Prices Slightly Higher

America's Oldest Radio Manufacturer

**HOWARD RADIO COMPANY**

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



# REFRIGS. MAKE NEWS

## Sharp Uptrend in Sales of New Units

Volume in sales of refrigerators continues extra strong, as new monthly totals are reported in the industry. The total of sales from 12 manufacturers to distributors and dealers in February was 333,335 for that month this year, compared with 261,328 for the same period last year, an increase of about 28 per cent. These are NEMA figures.

From individual companies comes news of exceptional increases in refrigerator sales. The latest check at Crosley Corp. shows that orders already amount to 52 per cent as many units as were shipped during the whole year of 1940. February volume was 125 per cent over the business last year.

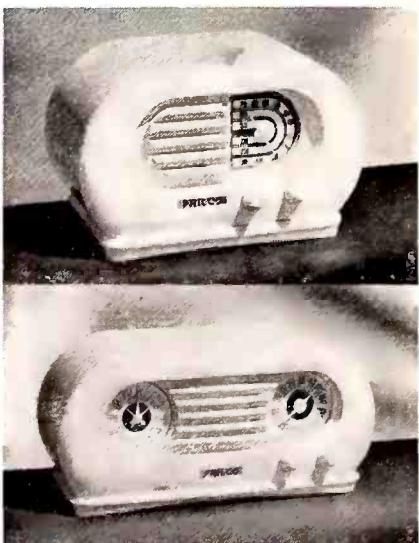
### GAINS GALORE

Kelvinator reveals "carload orders from retailers running more than double those of a year ago" at the same time announcing a big Spring sales drive on the new lines.

Norge has reported a 40 per cent jump in volume for January and February, and notes a strong trend toward higher priced models.

Philco had already reported spectacular gains in refrigerator orders, with emphasis on Advance Design Units, even before the big "3-way" sales plan was launched.

Reports from the American Washer & Ironer Manufacturers' Association show that shipments of household washer and ironer units in February broke all records for the month. A total of 155,318 washers went out during that month, an increase of nearly 10 per cent over a year ago.



Above is the kitchen radio which now goes along with Philco "super-quality" refrigerators. The radio-clock below is for buyers of "Advance Design" units.



This is the new Kelvinator C-6 at \$124.95, one of two new units just added to the line to strengthen the firm's step-up selling plans.

## Refrigerator List Prices Jump \$5

Increases in the list prices of 1941 refrigerators have been announced by two of the major manufacturers.

A boost of \$5 in the suggested retail prices of five of the eight Kelvinator models, and four of the seven Leonard units, came from the Kelvinator Division of Nash-Kelvinator Corp., Detroit. The Kelvinator M-8 job, and the Leonard LH-8 were increased \$10. Prices for the six Kelvinator "sixes" now range from \$119.75 to \$179.95; the two "eights" are tagged at \$179.95 and \$219.95.

The Hotpoint refrigeration manager, F. B. Williams, cited "increased manufacturing costs" as the reason for the firm's blanket increase of \$5 in list prices. There are 15 units in Hotpoint's line for 1941.

## Consumer Dividends Ready for Philco Refrig. Buyers

Three new merchandise bonuses are now available for Philco dealers to give their customers, as a part of a big 3-way sales plan announced by Philco at regional meetings in Chicago, San Francisco, Philadelphia, Memphis and Atlanta.

Philco dealers will now present a water-chiller to all customers who come in for a refrigerator demonstration; those buying "super-quality" boxes will be given a \$20 kitchen radio, and those purchasing "Advance Design" units will get a \$30 kitchen-radio-clock. These premium jobs are not generally available to the public.

The drive is supported by extra advertising, consumer materials, displays and literature for the dealers, etc.

Also shown by Philco at the meetings were four new air conditioning units, featuring enlarged capacities and new cabinet styling. The three window units

start at \$129.50 and go to \$259.50 for a job that handles rooms about 20 x 20 ft. The advertising leader, Model 41, comes in a handsome walnut wood cabinet, easily installed, no plumbing or watering.

The big unit, 91A, is a console job for larger rooms, with special adjustable center grille, \$375.

With an elaborate line of displays, sales aids, consumer and dealer literature, prospect-pamphlets, counter-cards, etc., all prepared, the Philco campaign on these units will take the form of an intensive advertising campaign and the most comprehensive direct mail campaign undertaken by anyone in the industry.

## Air Conditioners on GE Assembly Line

Manufacture of room coolers and console model room air conditioners at the General Electric plant at Bloomfield, N. J., is now in the "mass production" stage, in anticipation of the big summer selling season. Assembly-line methods were recently adopted, to put the AC units into the automobile class, and to increase the production pace.

In the GE air-conditioning and commercial refrigeration department, it has been announced by sales manager Elliott Harrington that Paul M. Hoven has been appointed eastern field supervisor, and Dorsey F. Hines, western field supervisor. Both will work under E. B. McClelland, assistant sales manager, in charge of field operations.



A new visualizer for features of Hotpoint refrigerators. Spin the dial, and they appear in top space. A sales aid that sticks to your refrigerator doors.

## Steinke in the Army

The well known sales promotion manager of Crosley Corp.'s refrigeration division, Truman Steinke, now has a year's leave of absence from Crosley and starts selective service army training at Camp Shelby, Miss.

## For the New Season



Here's the 61-A air conditioner tagged at \$199.50 by Philco. It's one of three new window units shown by the company, and it's for rooms about 15 by 19 feet.

## GE Opens New NY Branch

General Electric has established a new metropolitan distributing branch in the GE building, 570 Lexington Ave., New York City, according to H. L. Andrews, vice president. The new branch will distribute at wholesale, G-E automatic heating equipment, room coolers, self-contained store coolers, and air circulators, as well as radio and television receivers and tubes and vacuum cleaners.

Earle Poorman, district manager of appliance sales for GE in New York since 1931, has been appointed manager of the metropolitan distributing branch, and will continue as district appliance sales manager.

D. W. May has been named sales manager in the new branch, for radios and vacuum cleaners, and in addition to the Metropolitan counties will have wholesale distribution responsibility for northern New Jersey. The radio branch, which formerly had headquarters at 450 Fourth Avenue, is consolidated in the new firm.

The organization began April 1 in franchising of dealers in all of its lines, and for specialty selling of air conditioning products, according to Poorman.

## Majestic and Gene Tracey

Plans of Majestic Radio & Television Corporation, Chicago, to bid for a top position in radio, were indicated when announcement was made of the election as chairman of the board and general manager of E. A. Tracey, recently general sales manager of Zenith.

In commenting upon his new association with Majestic "Gene" Tracey, as he is familiarly known, said:

"I have made an exhaustive and most careful investigation of the public acceptance and strength of the Majestic name among radio brand names and have found it to have a potential vitality which I believe is as great as any brand name in the industry. The Majestic plant facilities are entirely adequate for large production methods and the lowest production costs."

"In my estimation the association of Howard Gates, president of the company and in charge of engineer-

ing, gives complete assurance that the company's production will meet every quality requirement and that his experience in engineering economics will permit the creation of values that will establish a new standard for the radio industry.

## DISTRIBUTOR FRANCHISE

"A tremendous merchandising advantage exists in the fact that there are approximately eight million Majestic radio sets now in use. Specific plans for replacement of these sets with modern Majestic receivers will offer both distributors and dealers an unusually profitable and fertile preferential market.

"It is our plan to develop the Majestic distributor franchise in such a manner as to insure distributor profits and security of inventory. We have decided upon a controlled retail distribution which through restriction of the number of retail franchises to carefully selected dealers will, we expect, be a long step towards the elimination of excessive trade allowances and other competitive practices that have been so costly to retail profits during past years.

"The company's sales program will be directed to the sale of its product through its distributors to dealers whose operations will not only insure sales volume but profitable sales volume for the entire retail organization. In short, it is our aim to create a real value for the Majestic retail franchise."

## Simpson Growth Inspires Doubling of Plant Space

The plant capacity of the Simpson Electric Co., Chicago, will now be doubled, according to an announcement which says that the firm's operations have completely outgrown the original factory. The company entered the field five years ago with a new line of panel instruments and testing equipment, and reports exceptional progress under the leadership of Ray Simpson, formerly president of the well known Jewell Electrical Instrument Co.

In reviewing the growth of the Simpson firm, Mr. Simpson points to a number of "new ideas" brought to the field by the company—such as the "Rotoranger," the Simpson "unit construction" idea, the Micro-Tester line, etc. He says that "the heart of our tube and set testers is a bridge type meter movement with soft pole pieces—developed to achieve a highly desirable ruggedness."

## Chicago Firm Shows 3-in-1 Device

The Vogue Co., 8134 Vincennes Ave., Chicago, Ill., is handling a line of antenna eliminators and three-in-one radio tuners, which consist of aerial eliminator, wave-trap and antenna tuner, all in one instrument. L. J. Thomas is sales manager.

A Healthy "Infant" Market

Snapshots In Sound

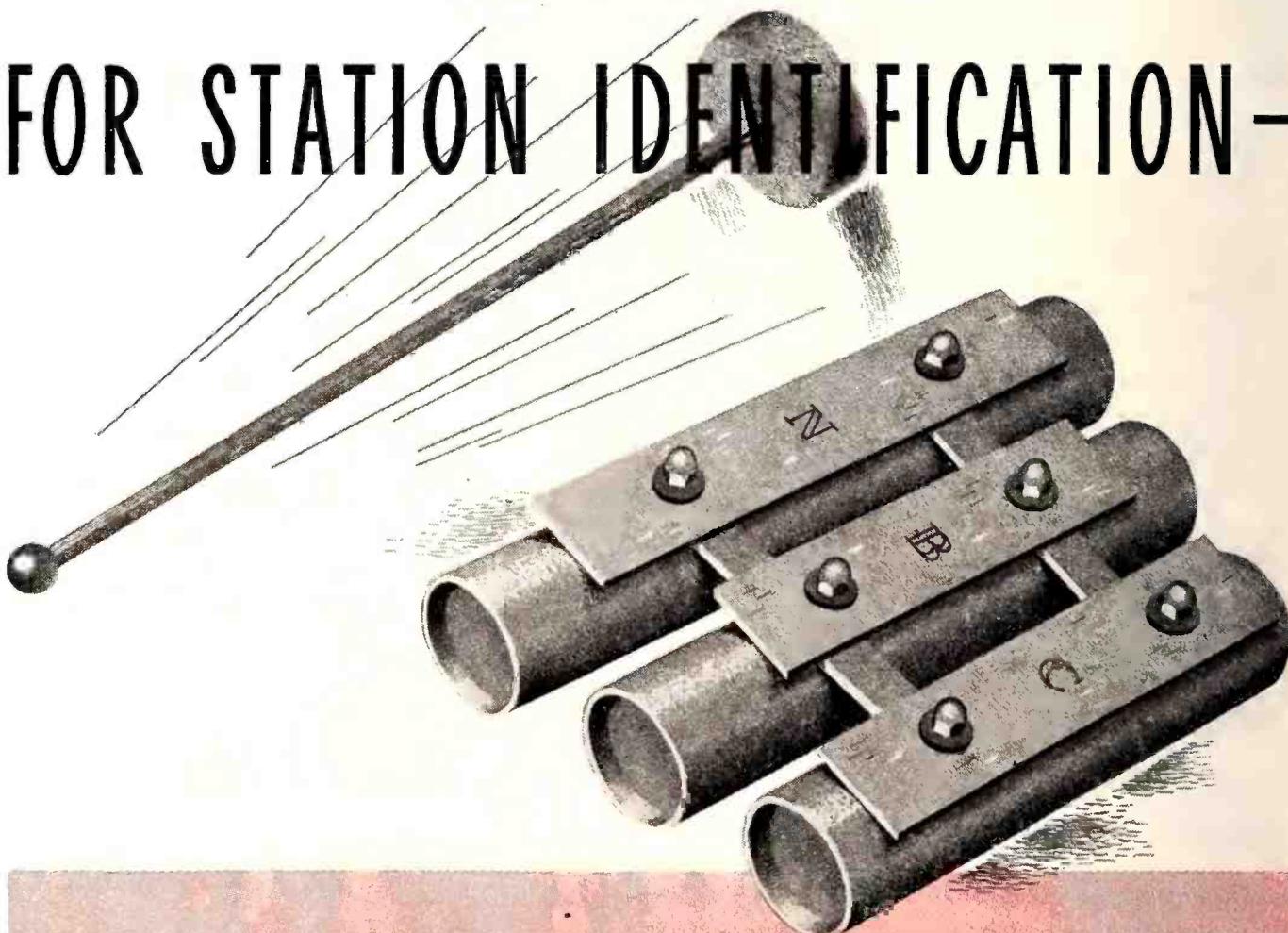
with RECORDISC Home Recording Blanks

- There is a GROWING demand for RECORDISCS... Baby's first words, birthday greetings, impromptu and candid moments that can never otherwise be duplicated... are now recorded. Recording a voice is as much fun as candid photography. RECORDISCS are "Snapshots in Sound."
- Development of new production methods has enabled RECORDISC to meet sharply rising demands... even while improving and standardizing quality... yet lowering prices to a level within the reach of even the most modest budgets.
- Yes... RECORDISC Home Recording Blanks are a desirable line... a PROFIT-BUILDING, constant "repeat-sale" line.

AVAILABLE AT YOUR LOCAL JOBBER

THE RECORDISC CORP.  
5 BROADWAY • Cable Address: RECORDISC • NEW YORK, N. Y.

# WE PAUSE FOR STATION IDENTIFICATION—



## The Stations of the NBC Red Network

CITY	STATION	NEW FREQUENCY	OLD FREQUENCY	CITY	STATION	NEW FREQUENCY	OLD FREQUENCY	CITY	STATION	NEW FREQUENCY	OLD FREQUENCY
Albuquerque, N. M.	KOB	1,030	1,180	Clarksburg, W. Va.	WBLK	1,400	1,370	Houston, Tex.	KPRC	950	920
Allentown, Pa.	WSAN	1,470	1,440	Cleveland, O.	WTAM	1,100	1,070	Indianapolis, Ind.	WIRE	1,430	1,400
Altoona, Pa.	WFBC	1,340	1,310	Columbia, S. C.	WIS	560	560	Jackson, Miss.	WJDX	1,300	1,270
Amarillo, Texas	KGNC	1,440	1,410	Columbus, O.	WCOL	1,230	1,200	Jacksonville, Fla.	WJAX	920	900
Asheville, N. C.	WISE	1,400	1,370	Corpus Christi, Tex.	KRIS	1,360	1,330	Johnstown, Pa.	WJAC	1,400	1,370
Atlanta, Ga.	WSB	750	740	Dallas-Ft. Worth, Tex.	WFAA	820	800	Kansas City, Mo.	WDAB	610	610
Augusta, Me.	WRDO	1,400	1,370	Dayton, O.	WING	1,410	1,380	Kingsport, Tenn.	WKPT	1,400	1,370
Baltimore, Md.	WFBR	1,300	1,270	Denver, Colo.	KOA	850	830	Knoxville, Tenn.	WROL	620	620
Bangor, Me.	WLBZ	620	620	Des Moines, Iowa	WHO	1,040	1,000	Lakeland, Fla.	WLAK	1,340	1,310
Billings, Mont.	KGHL	790	780	Detroit, Mich.	WWJ	950	920	Lancaster, Pa.	WGAL	1,490	1,500
Birmingham, Ala.	WBRC	960	930	Duluth, Minn.	WEBB	1,320	1,290	Laurel, Miss.	WAML	1,340	1,310
Bismarck, N. D.	KFYR	550	550	Superior, Wis.	KTSM	1,380	1,350	Lima, O.	WLOK	1,240	1,210
Boise, Idaho	KIDO	1,380	1,350	Eau Claire, Wis.	WEAU	1,070	1,050	Little Rock, Ark.	KARK	920	890
Boston, Mass.	WNAC	1,260	1,230	Evansville, Ind.	WGBF	1,280	1,250	Los Angeles, Cal.	KFI	640	640
Bozeman, Mont.	KRBM	1,450	1,420	Fargo, N. D.	WDAY	970	940	Louisville, Ky.	WAVE	970	940
Bristol, Tenn.-Va.	WOPI	1,490	1,500	Florence, S. C.	WOLS	1,230	1,200	Madison, Wis.	WIBA	1,310	1,280
Buffalo, N. Y.	WBEN	930	900	Fort Wayne, Ind.	WGL	1,450	1,370	Manchester, N. H.	WFEA	1,370	1,340
Butte, Mont.	KGIR	1,370	1,340	Fresno, Cal.	KMJ	580	580	Manila, P. I.	KZRH	710	710
Cebu, P. I.	KZRC	1,230	1,200	Grand Rapids, Mich.	WOOD	1,300	1,270	Mankato, Minn.	KYSM	1,230	1,500
Charleston, S. C.	WTMA	1,250	1,210	Greenville, S. C.	WFBC	1,330	1,300	Medford, Oregon	KMED	1,440	1,410
Charleston, W. Va.	WGKV	1,490	1,500	Harrisburg, Pa.	WKBQ	1,230	1,200	Memphis, Tenn.	WMC	790	780
Charlotte, N. C.	WSOC	1,240	1,210	Hartford, Conn.	WTIC	1,080	1,040	Miami, Fla.	WIOD	610	610
Chattanooga, Tenn.	WAPO	1,150	1,420	Hattiesburg, Miss.	WFOR	1,400	1,370	Milwaukee, Wis.	WTMJ	620	620
Chicago, Ill.	WMAQ	670	670	Havana, Cuba	CMX	1,010	880	Minneapolis			
Cincinnati, O.	WLW	700	700	Helena, Mont.	KPFA	1,240	1,210	St. Paul, Minn.	KSTP	1,500	1,460
	WSAI	1,360	1,330	Honolulu, Hawaii	KGU	760	750	Mobile, Ala.	WALA	1,410	1,380
								Montgomery, Ala.	WSFA	1,450	1,410

**And for this word to you who have borne  
the brunt of radio's "moving day": NBC joins  
America's host of Red Network fans in heartfelt  
thanks to radio dealers everywhere for the  
swift, efficient job you turned in under pressure.**

**A**T THE SAME TIME, now that the smoke is clearing, there are some other things that we think should be said.

First of all, perhaps we should apologize. For we cheerfully admit we are responsible for a great deal of the rush.

We hear that folks just simply won't sit still until they get their favorite NBC RED NETWORK pro-

grams right where they can reach them with a flip of the push button!

And here is something else we're told. Throughout the country, virtually every set adjusted has at least one RED NETWORK button on the dial. That is added proof that the NBC RED is the "Network MOST people listen to MOST."

A recent survey covering every county in the country proved that:

(a) During the daytime, NBCRED is listened to MOST by 36.9% MORE families than any other network.

(b) During the nighttime, NBCRED is listened to MOST by 41.7% MORE families than any other network.

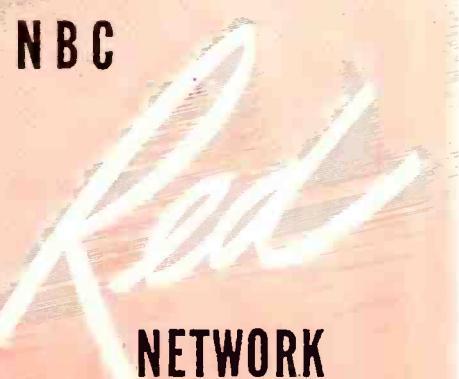
So, a word to the wise. Now that you're getting the chance to show more new sets than ever before — make the most of it. For your demonstrations, tune in NBC RED NETWORK programs and let them help make radio sales for you.

For your convenience in adjusting push buttons, here's the NBC RED NETWORK with all frequency changes listed.

National Broadcasting Company  
A Radio Corporation of America Service

CITY	STATION	NEW FREQUENCY	OLD FREQUENCY
Montreal, Que., Can.	CBF (F)	640..	910
	CBM	940..	960
Nashville, Tenn.	WSM	650..	650
New Orleans, La.	WSMB	1,350..	1,320
New York, N. Y.	WEAF	660..	660
Norfolk, Va.	WTAR	790..	780
Oklahoma City, Okla.	WKY	930..	900
Omaha, Neb.	WOW	590..	590
Pensacola, Fla.	WCOA	1,370..	1,340
Philadelphia, Pa.	KYW	1,060..	1,020
Phoenix, Ariz.	KTAR	620..	620
Pittsburg, Kans.	KOAM	810..	790
Pittsburgh, Pa.	WCAE	1,250..	1,220
Pocatello, Idaho	KSEI	930..	900
Portland, Me.	WCSH	970..	940
Portland, Oregon	KGW	620..	620
Providence, R. I.	WJAR	920..	890
Raleigh, N. C.	WPTF	680..	680
Reading, Pa.	WEEU	850..	830
	WRAW	1,340..	1,310
Richmond, Va.	WMBG	1,380..	1,350
Rochester, Minn.	KROC	1,340..	1,310
Safford, Ariz.	KGLU	1,450..	1,420
St. Cloud, Minn.	KFAM	1,450..	1,420
St. Louis, Mo.	KSD	550..	550
St. Paul, Minn.	KSTP	1,500..	1,460
Salt Lake City, Utah	KDYL	1,320..	1,290

(F)—French Language Station



The Network most people  
listen to most

# JOBBERS TALK TUBES

Chiseling on tube replacements is one of the bane of the radio distributor's existence. Some jobbers' customers are declared to have claimed replacements up to 150 per cent of their purchases, according to jobbers who have investigated acute situations!

But the conscience of the jobber's customer sometimes has a rubber consistency, because while the purchaser is seldom willing to put things over on his favorite jobber, the same man may have no qualms whatever in trimming the manufacturer. At this point the NRPDA steps in with the following suggestions to parts jobbers:

1. Make one man (your smartest counterman) responsible for all replacements, and train him to use the proper procedure.
2. Be sure you have the factory warranty and code dating information available for use as a basis for the discussion.
3. Call the dealer's attention to the following:
  - (a) No guarantee is perpetual. A six months' guarantee does not mean that a replacement can be claimed every five months forever. Service obtained should be paid for.
  - (b) Whenever possible, the dealer should sell a new tube to the set owner and the old one should be broken before the customer's eyes, to show good faith. Perhaps you will have to teach the dealer how to sell tubes rather than give them away.
  - (c) When a tube is replaced instead of being sold, the customer gets something for nothing, the dealer loses a sale, the jobber loses a sale, and the manufacturer has an unwarranted cost that is, after all, reflected in the price of tubes.

Tell the dealer to stand on both feet, be a salesman with intestinal fortitude, and ring up a profit in the cash register.

- (d) If you are convinced that the claim is unjust, that the dealer knows it is unjust, and he still insists on a replacement, just say:

"OK. We have a reputation of twenty years' standing for honesty and fair play. For that reason we will give you a replacement out of our stock. And for the same reason we would not risk our reputation by asking the factory for a replacement." At this point hand the customer a new tube and throw the disputed tube in the junk box and break it. Right then he would like to back down, but his pride won't let him. But he will admire you and never again ask for an unfair adjustment.

- (e) If you have one of the exceptionally unreasonable customers, remember that the "customer is always WRONG," and that it may be more profitable to let your competitor have him than to give him the satisfaction of "putting one over." Your business will survive without those who cannot (or will not) understand the Golden Rule, which still stands as Civilization's greatest precept for both life and business.
4. (Don't laugh at this system. It works! And it is keeping a certain jobber's replacements down around the 2 per cent mark.)

## Tube Allowances of 3 1/2%

Several manufacturers of radio tubes are considering crediting their distributors with 3 1/2 per cent of their

purchases as a tube adjustment allowance, the jobber making all replacements out of this allowance. This method eliminates much labor and bookkeeping for both jobber and manufacturer and puts replacements on the basis of a definite cost to the manufacturer. One has already made it optional with the jobber.

This matter has come up for discussions at several district meetings of the N.R.P.D.A. and sentiment of the distributors seems to be against it. However, so few members had concrete information on replacements that it was decided that distributors will have to furnish some definite figures before the association can go to bat on this matter.

Here is the replacement record of one jobber. Look these figures over. You really should have records like this. You need them as a check on your merchandise, and on the replacement policies of both yourself and your manufacturer.

No. of tubes purchased	30720
No. of tubes replaced	755
Total cost of tubes purchased	\$11137.10
Factory allowance—3 1/2 %	\$389.79
Cost of 755 tubes replaced	\$293.50
Percentage cost of replacement	2.6%
Profit on tube allowance	96.29%

If a jobber's tube replacements are running over 3 1/2 per cent he should do several things immediately, advises George D. Barbey, president of the national body, and a veteran jobber of Reading, Pa.

1. Change your own replacement policy.
2. If you are not already doing so, start keeping accurate replacement records immediately.
3. Get your records in such shape that you can discuss the replacement problem intelligently with your manufacturer on the basis of your own statistical experience.

The percentage allowance plan will probably become general. Its adoption, and the percentage allowed, is up to you.

If you have no replacement records, start them at once because they will have to run at least six months before they are averaged enough to be of any use.

## Champion Leaves Radio Tube Field

The Champion Radio Works, Danvers, Mass., a division of the Consolidated Electric Lamp Co., will now discontinue the line of "Champion" radio tubes. The step follows a survey of conditions in the radio tube industry. Three other divisions of Consolidated, Champion Lamp Works, Lynn, Mass.; Vulcan Electric Co., Lynn, Mass.; and Heinze Electric Co., Lowell, Mass., continue active.

## Wedemeyer Radio Meet Draws Michigan Crowd

Some 200 dealers and servicemen, plus 25 factory "reps" attended the third annual meeting and exhibition staged last month by Wedemeyer Ra-



George Barbey, left, whose tube ideas are quoted on this page, was a prize-winner in the Shure Bros. microphone contest; Photo shows his son Carl receiving award for Geo. D. Barbey Co., Reading, Pa. Left to right, George Barbey (he's president of NRPDA); L. S. Wentzel; Carl W. Barbey; S. K. Macdonald, Philadelphia, president of "The Representatives"; J. D. Callaghan; and Jim Faries.

dio Co., radio parts distributors of Ann Arbor, Mich. Guests were entertained by speakers, entertainment, refreshments and exhibits at the local Masonic Temple.

Extra interest was added by 20 different displays shown by factory men, door prizes, and addresses by John F. Rider, Ted Rosser of P. R. Mallory, and Carl Wesser of the short wave department of *The Detroit News*. Over 75 manufacturers had representatives at the event.

## Parts Jobbers Find New Industrial Biz

Expanding business for radio parts jobbers in the growing industrial electronic field is reported by Bill Bohike, and W. H. "Win" Allen of RCA Mfg. Co. Evidence gathered by personal contact with more than 300 tube and equipment distributors and representatives at the "Know Your Stuff" series of meetings, shows a tremendous market for industrial sales and service of test equipment, tubes, and parts. According to Mr. Bohike, factories and laboratories are calling for oscilloscopes, oscillators, receiving and special purpose tubes, vacuum tube voltmeters, and other standard radio parts.

## Wilson to Radex

A new comer to the Radex Corp., 1733 Milwaukee Ave., Chicago, is Ray Wilson, formerly with Zenith. Mr. Wilson will work on the development of "moderate-priced test equipment that the serviceman can afford to buy."



Very much in the parts picture in Oklahoma—left to right, Jim Kay, prominent southwestern rep; Joe Barnett, Radio Supply, Inc., Oklahoma City; and Charley Golenpaul of Aerovox Corp.

## Sprague Uses Extra Plant for Defense Orders

The problem of how to handle the heavy influx of defense orders, and at the same time to give prompt attention to regular business from the radio trade has been solved by the Sprague Specialties Co. and Sprague Products Co., North Adams, Mass., by using an extra factory which the firm had bought several years ago. The second plant is fully equipped to give wholehearted priority to defense orders, and thus Sprague segregates this business from the regular orders.

Sales manager Harry Kalker says

that "we believe that national defense comes first, but due to our unique set-up, we can assure jobbers and servicemen of prompt deliveries."

## Motorola Picks Iowa Distributor

News from the Sioux City, Ia., area is that Galvin Mfg. Corp. of Chicago has named the Duke Radio Co., 110 W. 4th St., as their exclusive distributor for both car and home radios in the territory. Head of the Duke firm, W. O. Ducommun, now plans a big promotion drive among radio dealers in the area.

## Serviceman's Standby

### 1941 Edition, New, Improved Tube Complement Book

272 Pages—16,730 Radio Models shown—including data on '41 receivers. Tube replacement information for 100,380 Tubes or Sockets. 586 Trade Names of receivers. Names and Business Addresses of 190 Receiver Manufacturers. Patented, Hold-Tite, Wire-O Binding.

### The First and Only Compilation Of Panel Lamp Numbers

Every Radio Serviceman should own one of these Sylvania Tube Complement Books. All the information you'll need—from the oldest set, up to and including the latest '41 models—is packed into those 272 pages. Write today for Sylvania's Tube Complement Book, enclosing 35¢ in stamps or coins, or see your Sylvania jobber. Radio Tube Division, Hygrade Sylvania Corporation, Emporium, Penna.

## SYLVANIA

SET-TESTED RADIO TUBES

Also makers of Hygrade Lamp Bubs, Hygrade Fluorescent Lamps and Miralume Fluorescent Light Fixtures

FOR BETTER HOME RECORDINGS

*Sell* Fidelitone  
HOME RECORDING STYLUS

YOU will increase your sales of home recording discs by selling FIDELITONE Home Recording Styli. Why? Because you can cut up to 200 6" discs with its hard, sharp, platinum metals point. These smooth, clean recordings will make satisfied customers for you.

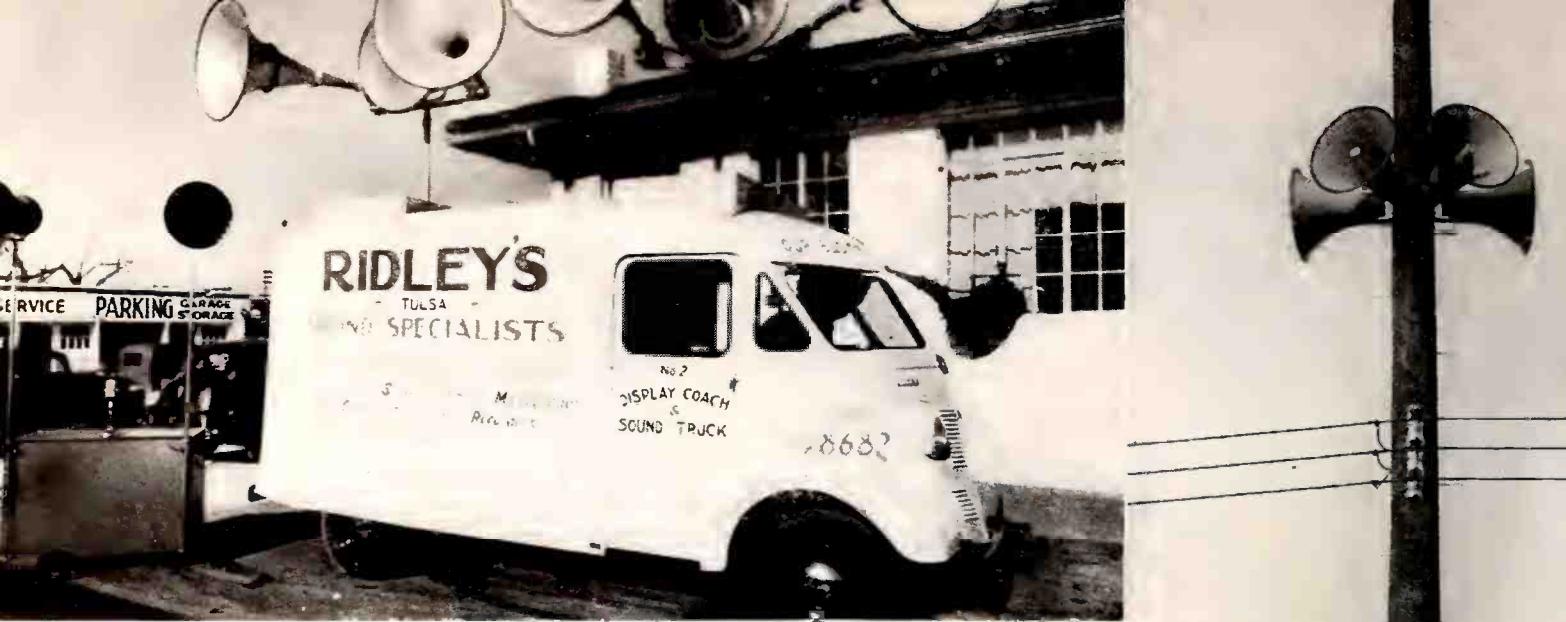


Manufacturing



Metallurgists

PERMO  
PRODUCTS CORP.  
6415 RAVENSWOOD AVE.  
CHICAGO, ILLINOIS



Latest addition to the truck fleet of the sound specialist, R. P. Ridley, of Ridley's, Inc., Tulsa, Okla. The truck mounts six 6-foot trumpets, has a 100-watt Class A amplifier.

## P. A. PAYS!

**Sound installations that you can duplicate with profit to the customer and yourself**

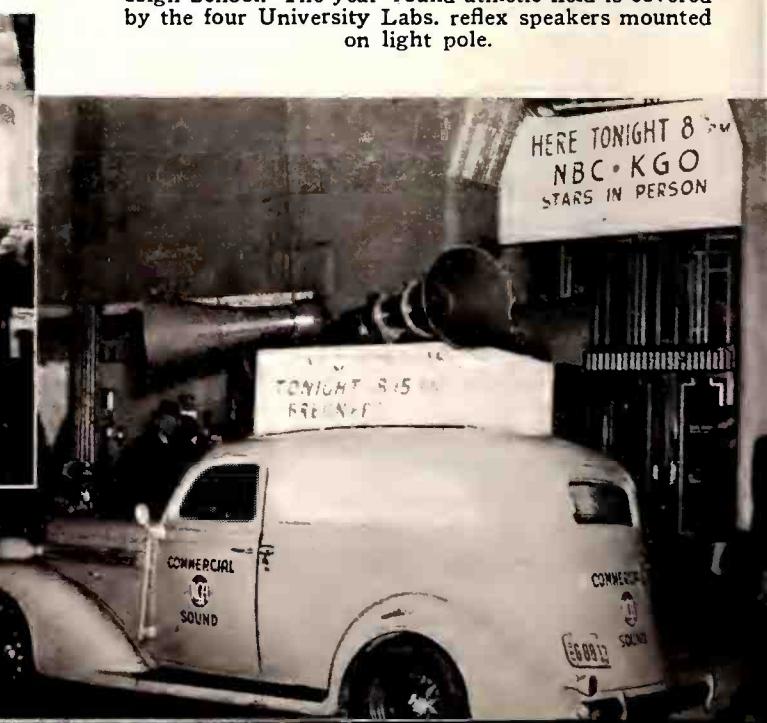


PA installation in Holy Family Cathedral and Tulsa Club below made by Ridley's, Inc. Note speakers on side columns.

Sound installation pictured at upper right and above was made by Lurtz Elect. Co. for Belleville, Illinois, High School. The year 'round athletic field is covered by the four University Labs. reflex speakers mounted on light pole.



Installation of sound equipment in large Tulsa Club, Okla., makes use of wall mounting box-type speakers. The mikes may be used at any location without serious feedback trouble.



Sound truck of Leo J. Meyburg, RCA Commercial Sound, Oakland, Cal., kept the crowds informed of the radio "stars" appearing in person at Cal. department store for broadcast.

## Crescent Co. in Third Expansion



H. H. Gefvert of Crescent

The completion of two new buildings for the Crescent Tool & Die Co. and Crescent Industries, Inc., 4140 Belmont Ave., Chicago, has been announced by the firm's president, H. H. Gefvert. This is the third expansion enjoyed by the company in the past two years, and as a result, the production of speakers has been boosted about 100 per cent. In the tool, die and metal stampings division of the firm, the expansion program has also resulted in a similar increase in production.

## Fluorescent Demos Stir Interest

Another flare-up of interest, among radio servicemen, in fluorescent lighting and its relation to servicing problems was noted during a new series of service meetings held throughout the Southeast by Walter R. Jones and Frank Langstroth of Hygrade Sylvania Corp. At each meeting where the fluorescent subject was mentioned, it inspired prolonged discussion, along with the regular radio service topics presented. Use of fluorescent chalk on a blackboard lighted only by "black" light was another matter of feature interest.

Fourteen jobbers sponsored the series of meetings, and Sylvania southeastern sales representatives C. W. Chapman and J. T. Fulwiler were on hand to assist.

## Better Short-wave Reception for Home

Many radio listeners, urged by the desire for more dependable reception of war news direct from the short-wave stations of Europe, are puzzled as to what type of receiving equipment will best serve this purpose. For such, Hallicrafters, 2611 Indiana Ave., Chicago, offer a 12-page illustrated booklet, "Short-wave Radio Receivers."

In professional short-wave services, where the utmost in effectiveness and dependability is demanded, receivers of the "communications" type are uni-

versally employed. These receivers are also available to the public, and are suited to the requirements of the most critical short-wave broadcast listener.

The new booklet discusses advantages of this type of receiver and explains the purpose and functions of the various controls. It stresses the fact that to operate a communications receiver effectively, is well within the ability of the serious short-wave listener. While the controls are more numerous than in the case of the ordinary home receiver, each has its logical purpose and they all combine to provide the flexibility called for, if best short-wave results are to be obtained.

## Pacific Rep Wants New Lines

From San Francisco, Calif., comes word that a radio man there is ready to become a sales representative for a jobber or manufacturer to cover dealers, jobbers or industrial accounts in California, Oregon, and Washington or all of the 11 Western states. His experience includes radio and refrigerator servicing, sales of radio, appliances, sound movie equipment, inter-communication systems, and sound products as well as radio parts and accessories.

Interested parties should write to RADIO TODAY, Box 1219, 480 Lexington Ave., New York City.

## 15 WATT AMPLIFIER at \$24.50 GIVES 3100 HOURS Continuous SERVICE —AND STILL GOING STRONG!



### CHECK THESE FEATURES

- EXTRA HEAVY CHASSIS
- COMPLETELY SHIELDED
- ALL OVERSIZED COMPONENTS
- SIX TUBE CLASS A PUSH-PULL
- FIFTEEN WATT OUTPUT
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- 2-4.8-500 OHM OUTPUTS
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- FOUR STAGES OF AMPLIFICATION
- TUBE LINEUP 1-6SJ7, 2-SC7, 2-6N6, 1-83V
- OPERATION ON 110-120 Volts, 50-60 Cycle

### BUY THE BEST FOR LESS!

Don't let our low price fool you! When you buy a TokFone Amplifier you're buying QUALITY. Mr. O'Neil's letter and many others like it prove that you need not pay high prices to get High Quality.

**24.50**  
List Price  
Less Tubes F.O.B. N.Y.

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- AMPLIFIERS—8 to 60 watts; list \$24.50 to \$82.50; also 15 and 30-watt amplifiers with phonographs; 15-watt portables; 60-watt boosters. Speakers, baffles, microphones and accessories.
- RECORDERS—Combining PA system, phonograph and recorder in one compact quality instrument. The only low-priced recorder with built-in Voice Level Recording Meter. Sensationally priced at only \$79.50 list.
- ELECTRIC PHONOGRAFS and Record Players—Outstanding quality, tone and styling. Portable, midget and table type electric phonographs; automatics, wireless record players. List \$13.95 to \$39.95. Transcription record players, list \$149.50.
- INTERCOMMUNICATION—World's most complete line. A money-saving system for every need.

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Amplifier Engineers  
510 Norman Avenue  
St. Louis Mo.

Royal Amplifier Mfg. Co.  
14 West 17th St.  
New York City

Gentlemen, We have five of your 15 watt amplifier systems working 24 hours a day here at the Union Station in St. Louis for giving instructions to trainmen. Two of these systems have been in use continuously since July 22nd, 1940. The sets have never been turned off. We even had to change tubes once at a time so no messages would be held up more than 15 seconds.

There are 14 horns connected to this system spread over 5 city blocks and 2 inside speakers located in 24-hour stations along the tracks. The noise level is terrible when trains are passing and to overcome this requires a lot of volume. A football game is a sougher compared to this noise we have to work through.

To cut off the amplifier when not in use I use a toggle switch shorted across the output. This best switch lasted two weeks so you know how many times this is cut in and out.

This installation required dependable equipment and your TokFone amplifiers came thru in great shape.

Yours very truly,  
*Donald O'Neil*  
Mueller O'Neil Co.

Western Electric Equipment Used Exclusively

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# NEW SOUND PRODUCTS

**Tokfone model P15WA**



★ 15 w. amplifier and record player with 2 microphone and 1 phono input channels. 2-4-8-500 ohm output impedances. Crystal pickup. 78 r.p.m. motor. Full variable tone control. \$44.95 list. Regal Amplifier Mfg. Corp., 14-16 W. 17th St., New York, N. Y.—RADIO TODAY.

**Clarion amplifier**



★ Model A-35-K amplifier designed for use with sound-on-film reproducing equipment. 21 watts. Photo-electric cell input gain, 120 db. 80 to 10,000 CPS. Input for two PE cells and 2 phono. Supplies 90 v. for PE cells; 4, 7, 8½ v. for exciter lamps. Lists at only \$63.03. Transformer Corp. of America, 69 Wooster St., New York, N. Y.—RADIO TODAY.

**Atlas reflex projector**



★ "Morning Glory" reflexed projector, DR-54, for general P.A. ap-

plication. Battleship gray lacquer. DR-54 lists at \$32. P.M. driver unit model PM-23 is \$32.50 list. Atlas Sound Corp., 1449 39th St., Brooklyn, N. Y.—RADIO TODAY.

**Stromberg-Carlson sound system**



★ A portable sound system, No. 18-P with 10 w. power. Two input jacks for high impedance mike and high impedance phono pickup. Two 10 in P.M. speakers mounted on opposite halves of the carrying case, each with 25 ft. cord. Tone and volume controls provided. Stromberg-Carlson Tele. Mfg. Co., 100 Carlson Rd., Rochester, N. Y.—RADIO TODAY.

**University intercommunicator**



★ Model 1B8 speaker is designed for paging and intercommunicating use. Uniform frequency response enables it to cut through the worst type of background noise and give clear, intelligible speech reproduction. Built-in driver unit. Handling capacity 12 w.; impedance, 8 ohms. List price, \$24. University Labs., 195 Chrystie St., New York, N. Y.—RADIO TODAY.

**RCA microphone**

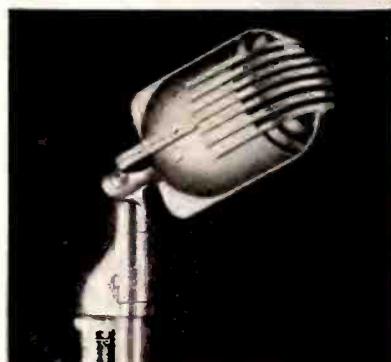


★ New aeropressure microphone designed to withstand wind in outdoor applications, but it is equally well suited for indoor use. 60 to 10,000 cycles frequency response. "Paracoustic" baffle changes the directional characteristics of the mike. Available in 250 and 40,000 ohms. Equipped with 30 ft. cable. RCA Mfg. Co., Camden, N. J.—RADIO TODAY.

**Thordarson mobile amplifier**

★ A 12-w. mobile amplifier operates from a 6 v. storage battery and measures only 13½ x 7½ x 7¼ in. This T-30W12 amplifier is ideal for use on military drilling fields, athletic fields and parade grounds. Standby switch allows operation instantly it is turned on. Thordarson Elec. Mfg. Co., 500 W. Huron St., Chicago, Ill.—RADIO TODAY.

**Shure "Stratoliner"**



★ A dynamic microphone of series "508"—moving conductor type. Built-in transformer, swivel head, satin-chrome die cast case. Available in 35-50 ohms, 200-250 ohms and high impedance models. Complete with 25 ft. shielded cable, \$27.50 list. Shure Brothers, 225 W. Huron St., Chicago, Ill.—RADIO TODAY.

## OUTDOOR SOUND JOBS

(Continued from page 15)

space with the show, but are not officially connected with it. Most of these acts are of the "knock the milk bottle over—win a haw" type. Go after these concessions as soon as the show hits town and sell or rent them a sound system.

The type of equipment to have ready for this business is the medium-powered portable variety. Twenty to thirty watts is a good power capacity for the amplifier. Choose the speakers for their ability to stand up in bad weather and long hours of use. Trumpets with PM drivers will probably give the most economical use of amplifier power and the best sound coverage.

### EQUIPMENT TO USE

Almost any type of mike in about the same price class will give good service. Crystals, dynamics, velocity mikes and some carbons are to be found in these installations. It is a good plan to protect your mike with a cloth screen such as a silk stocking to keep over-enthusiastic barkers from drowning it.

Lots of phonograph record players are used on amusement rides, "girlie" shows, etc. The combination record player and amplifier units are made to order for these jobs.

In setting up the system, place your speakers on opposite sides of the stage, platform, or front of the concession and focus them on a spot about 20 feet in front of the barker's stand. This will usually hit the center of the crowd.

After you have rented a system don't get left holding "the bag." Get your fee well in advance of the "folding date" and it's a good idea to get a deposit for the equipment.

### MORE SPRING SOUND

Other jobs coming along with the Spring season are to be found in the local baseball organizations, tennis clubs, parks, swimming pools, and other summer sport centers.

If some of these prospects used sound last year and bought their own equipment, the chances are that new tubes will be needed, and possibly other repairs to the amplifier, speakers, record player, wiring, etc. Usually an extra mike, or speaker can be sold to improve the coverage of the system.

City and state parks, and town bandshells, will be getting back into shape for the summer season. Many of these places have not tried a sound and public address system for better entertainment of their patrons. It is not too early to contact the managing boards of these amusement centers and tell them what a good, well installed PA system can do.

Where these groups have already installed PA equipment in previous years, make arrangements with the board of directors, or managers of parks to call you when there is a demand for rental sound equipment. Many times there are conventions, company picnics, etc., where a sound system is needed. Since such groups usually make plans with the park board, they will be able to contact you if your name is filed with the board.

### GETTING THE BUSINESS

Government training camps are also using many PA systems. A large number of these camps are buying equipment from local stocks. Field purchasing offices are maintained in various parts of the country and these should be contacted for details.

### Special Tubes for Amplifiers Made by National Union

The National Union line of Sound X-tra tubes now includes a wide variety of types to serve practically all purposes in public address amplifiers. These tubes employ special design features to reduce microphonics and hum level. On an average, the hum is reduced approximately 15 db. High cathode emission, low gas content, and individual testing for uniformity, make these tubes excellent performers in high-gain audio amplifiers.

The present list of tubes includes the following: Amplifiers; 6C5G, 6J5GT/G, 6J7G, 6J7GT. Mixers; 6L7G, 6N7G, 6N7GT/G. Output; 6F6G, 6K6G, 6L6G, 6V6G, 6V6GT/G. Rectifiers; 5U4G, 5V4G, 5Y3G, 5Z4GT/G, 6W5G, 6X5G, 83.

### SOUND BOOKLETS

The Sound Apparatus Co., 150 W. 46th St., N. Y. C., has released a booklet furnishing complete information on its automatic high speed power level recorder.

New 1941 Atlas Sound catalog F-41 just released by Atlas Sound Corp., 1449 39th St., Brooklyn, N. Y., describes more than 100 types of p.a. speakers, mike stands, connectors, and accessories.

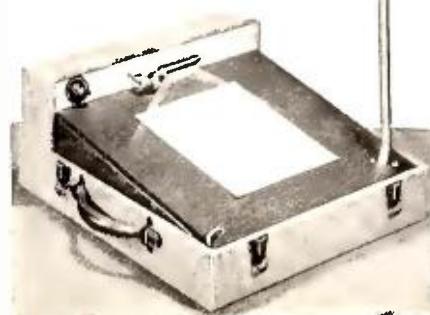
New 8-page Turner Microphone catalog, No. 60, offered free on request, shows and explains all the microphones and equipment in the complete Turner line, with list prices. The Turner Co., Cedar Rapids, Ia.

The specifications and prices of University wide range loudspeakers and non-resonant weather-proof projectors are furnished in a new brochure by University Labs., 195 Chrystie St., New York, N. Y.

Just off the press is Bell Sound Equip. Co.'s (Columbus, Ohio) new catalog, No. 33, giving specifications on their complete line of sound equipment.

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Single unit P.A. system combined with reading lamp and desk. Wide virgin field and high dollar value. Simply plug in and operate.

Just the thing for Churches, Hotels, Schools, Lodges, Clubs and social gatherings. 4-tube amplifier, mounted in one easy-to-carry case. One simple volume control. 6½" dynamic reproducer having excellent frequency range. Crystal microphone mounted on gooseneck stand. Tweed covered case, 8" x 14½" x 17". 10-ft. power cord and plug. List ..... \$46.75

### 8-WATT PORTABLE

Complete low priced P.A. system of unusual performance and adaptability.

Excellent amplification for assemblies of several hundred. 5-tube amplifier. Crystal microphone, 10" PM speaker. Carrying case functions as baffle of sufficient area to assure full tone range. Reproduces the "highs" so necessary in good speech reproduction. Provision for additional speaker. Tone control for various acoustic conditions. Volume controls for microphone and phono inputs. Case 11" x 12½" x 13½". List ..... \$49.50

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Include a complete line of portable and fixed sound systems, centralized systems, automatic record changers and intercommunicating equipment.

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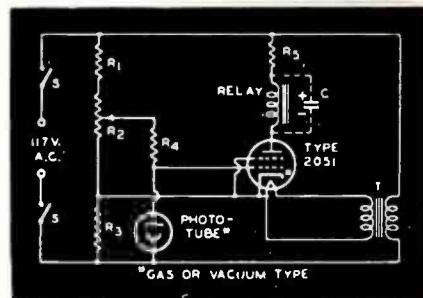
# NEW JOBS FOR "RADIO"

THE JOB	HOW IT WORKS	WHERE USED
1. Automatic announcer and warning systems.	Light beam crosses door-way or drive-way and falls on phototube. Interruption of beam causes relay in phototube circuit to ring chimes, bell, or flash a signal light.	Homes; doctors', dentists' offices; coal mines, steel mills; automatic lorry systems.
2. Automatic lighting controls to turn on and off home, plant, garage, etc., lights.	Phototube and relay circuit operates at dusk to turn yard lights on, and at dawn to turn them off.	Large homes and estates; industrial plants; trucking companies; bus depots; train yards.
3. Automatic night watchman sound system.	Intercommunication system with sensitive mikes placed at strategic points enable watchman to make his "rounds" by turning a selector switch to each of the locations and listening.	Plants; warehouses; bank vaults.
4. Burglar alarm; "black" light.	Infra-red light source or filter for "white" light sends invisible beam across path. Interruption of "beam" causes phototube to operate relay which rings alarm bell.	Garages; warehouses; homes; stores; plants; banks.
5. Counters of manufactured products, people, cars, etc.	Beam of light crosses conveyor belt where moving products can intercept beam. Phototube controlled relay operates "speedometer" type counter.	Industrial plants; packing plants; parks; bridges; tunnels; etc.
6. Door-openers.	Light beam across door-way interrupted by person or car causes phototube to operate a relay which starts door-opening motor.	Homes; department stores; depots; garages; etc.
7. Drinking fountain control.	Beam of light crosses path and falls on phototube. Interruption of beam causes phototube to operate valve.	Stores; industrial plants; offices; etc.
8. Window display controls.	Tin-foil disc pasted to window is connected to hidden self-excited oscillator. Bringing your hand near the disc detunes the oscillator, and rising plate current operates relay, to turn on display.	Stores (including your own).
9. Smoke and fire alarms.	Sensitive phototube circuit located near ceiling rings alarm when smoke becomes dense. Fire alarm operates when open flame throws light on phototube.	Warehouses; garages; factories; etc.
10. Safety devices on machine tools.	Phototube and relay circuit prevent machine from operating when operator's person is in danger.	Industrial plants; butcher shops; machine shops; laundries; etc.

Phototube alarm and signaling apparatus sales and installation are another source of income for servicemen. Automatic door openers, burglar alarms, nursery protectors, and fire alarms are but a few of the applications that servicemen can demonstrate to home owners, store keepers, and other small businesses.

Phototube equipment is now available in compact, reliable units which may be quickly installed. Several types of equipment have the light source and photocell in the same case. Reflection of the light beam by a mirror back to the photo tube makes the protective path. Other conventional units have separate light sources and pick-up boxes. Sensitivity has been increased to the point where smoke will break the beam and start the alarm.

A typical photo-tube application circuit is shown. A gas or vacuum type of photo-tube can be used in this circuit to close the relay on a decrease in light on the cell. This is the usual type of application for alarms, counters, etc.



For a vacuum-type cell,  $R_1$  is 0 ohms,  $R_2$  is 5000 ohms, 4 watts.  $R_3$  1000 ohms, 1 watt.  $R_4$ —1 to 10 megs.  $R_5$  should be large enough to limit the current through the relay to its rating. If a gas type phototube is used, the value  $R_5$  and the relay resistance should be not less than 1500 ohms. The filament transformer delivers 6.3 volts at .6 amps. The capacity across the relay is 2 to 8 mfd., 250 volts and is used if needed to prevent chatter. Relay should operate on 25 ma. or less.

For a gas type phototube,  $R_1$  is 3000 ohms, 2 watts and  $R_2$  is 2000 ohms, 1 watt.

The sensitivity of the instrument is controlled by the potentiometer,  $R_2$ , which controls the amount of AC voltage on the grid of the 2051 amplifier. Since the grid is negative due to the phototube current through  $R_3$ ,  $R_2$  and  $R_4$ , conduction on these positive plate cycles can occur only if the phototube light is decreased. The decrease in light decreases the photo current and decreases the negative bias on the 2051 grid, permitting conduction and closing of the relay.

Demonstrations will show the safety features of phototube apparatus forcefully enough to sell most of the jobs. Have several working installations in your shop or store. A trick window display using phototube equipment to operate lights, fans, or other appliances will get the attention of passers-by.

# NEW THINGS

## Vacuum tube voltmeter

★ Model 62 voltmeter with push button selection of 5 ranges—1, 3, 10, 30 and 100 v. ac or dc. 2 per cent accuracy. 115 v., 60 cycles. The shunt capacitance of the probe is 7 mmfd. The frequency error in the probe is negligible from 30 cycles to over 150 megacycles. \$135. Measurements Corp., Boonton, N. J.—RADIO TODAY.

## Radex "Poketracer"



★ A universal signal generator for all types of trouble shooting. R.F. and audio signal source of vibrator type. Generates multiple frequencies for alignment or test purposes. Uses single penlite type flashlight battery. \$2. Radex Corp., 1733 Milwaukee Ave., Chicago, Ill.—RADIO TODAY.

## G-C flock finish kit



★ A felt-coat finish kit (No. 1800) to give phono-turntables, cabinets, testers, tool chests, compartments, displays, etc., a soft felt finish. Kit consists of "Felt Koat" flock, undercoat, undercoat thinner, brush and sifter-top can. Directions included. Available in brown, taupe and blue. \$2 list. General Cement Mfg. Co., 919 Taylor Ave., Rockford Ill.—RADIO TODAY.

## Vertrod antennas

★ Three new antennas have been added to the Vertrod line—model 100 for high fidelity and broadcast receivers, \$7.50 list—model 103. for communications receivers (efficient coverage from 500 kc. to 30 mc.), \$12—model 104 for high fidelity broadcast and frequency modulation reception. \$12. Vertrod Mfg. Co., 132 Nassau St., New York, N. Y.—RADIO TODAY.

## Clarostat resistors

★ Type MTG, glass-insulated-element plug-in tube type resistor for heavy duty service as in sets using 300 and 150 milliamperc tubes. Employs fibre-glass core for the winding. Clarostat Mfg. Co., Inc., 285-7 N. 6th St., Brooklyn, N. Y.—RADIO TODAY.

## Taco antenna

★ Combination antenna system for FM, AM, short wave and television has selector transformers using u.h.f. iron cores. Dipole of 2 metal rods held by a center bracket. The 2 rods connect with the antenna transformer which feeds the transmission line. Variations are available to suit any installation. Technical Appl. Corp., 17 E. 16th St., N. Y. C.—RADIO TODAY.

## R.C.P. tube volt-ohm meter

★ New electronic tube volt-ohm meter, model 661 has input resistance of 16 megohms; AC-DC voltage range, 0.1 to 6000 v.; resistance range, 0.1 ohm to 1000 megohms; capacity test range, .00005 to 600 microfarads. 4½ in. rectangular meter. Radio City Products Co., 88 Park Place, New York City.—RADIO TODAY.

## IRC FL resistors



★ IRC resistors for d.c. operation of fluorescent lamps. Available in complete line of voltages and sizes. Wire wound type with full molded 1250 v. insulation. Small enough to fit in fixture channel. International Resistance Co., 401 N. Broad St., Philadelphia, Pa.—RADIO TODAY.

## Walsco Unibelt



★ A new dial belt adjustable to fit any dial, comes open, will not slip because of latex covering. Will not stretch as it has flexible "steel core." Patented zipper-like fastener gives instant durable connection. Types A and B (adjustable from 6½ in. to 10 in. and 10 in. to 13½ in. respectively), 35c. Types C and D (14½ in. to 17½ in. and 19½ in. to 22½ in.) 40c. Walter L. Schott Co., 5266 W. Pico Blvd., Los Angeles, Calif.—RADIO TODAY.

## NEW P. A. GUIDE



### 101 P. A.

#### ITEMS

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- SOUND
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If You Are SELLING SOUND—  
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There's no danger of burning out tubes or otherwise damaging or impairing the performance of the set for Hytron Ballasts are designed for the particular circuit. And you can't make the error of cutting the wrong pins or taps, since each Hytron Ballast is an

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**HYTRON CORP.**

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Manufacturers of Radio Tubes Since 1921

# SERVICING SPEAKERS

**Solving the problems of replacing burned-out speakers  
in old sets. Finding unknown values of field resistance.**

Many jobs which pop-up on the serviceman's bench have a puzzling nature, but burned-out speaker fields on old sets are often the biggest headache. The question of whether to try and get an exact replacement for the tapped odd-ohmage field, try to shunt the dead sections with a resistor, or replace the whole business with a PM unit is something of a problem.

The exact replacement cost is usually too great for the old set to bear, and a cheaper solution is often necessary. This solution may be the judicious use of a shunt resistor, or the replacement with a permanent magnet speaker.

## MAKING THE CHECK

A suspected dead speaker can be field-checked when the set is on, with a screwdriver at the center core pole, or at the cone end of the steel magnetic yoke. Absence of any magnetic "pull" would not definitely mean the speaker field was open, however. The rectifier or transformer could be at fault, or a choke open in the case of a parallel operated speaker (field across the power supply) or the external load might be open in the case of a series speaker. These conditions would show up on a voltage test.

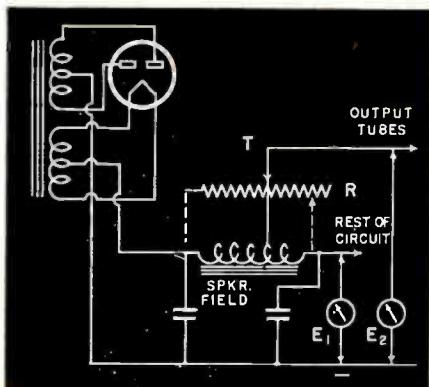


Fig. 1—Substitute a sliding tap resistor for burned-out field. Adjusts taps for correct values of E<sub>1</sub> and E<sub>2</sub>. See text.

If the field does prove to be open the next problem is to find whether the break is within reach of repairing. Many times, the joint between the lead and the winding has broken with excessive strain. Where this is the case, it is comparatively easy to pull out half a turn of the field and attach a new lead.

If the field coil has been burned out (your eyes and nose can tell you this), the chances are it is in the center coil—the hottest point—and could not be repaired without rewinding.

Assuming that repair is impossible without rewinding, the next job is to find or estimate the resistance of the

winding. Manufacturers' specifications in service manuals or manufacturers' replacement speaker catalogs should do the job, but if the information cannot be found, several other methods may be used to find it.

## FINDING THE RESISTANCE

A quick way to find the correct field resistance, for the type of speaker which is connected in series with the positive or negative lead of the power supply, is to put a variable resistor in place of the speaker field and adjust the resistance until the plate voltage on the various tubes in the set are at their recommended values. See Fig. 1 for the circuit. The plate and screen voltages can usually be found in the various books which have tabulated this information. If this source of information fails, use the tube manuals which will give operating voltages.

The resistor may be one of the sliding tap variety of 10 watts or more. A 5000-ohm resistor will take care of practically all cases. If the field was tapped for purposes of furnishing a higher voltage to output tubes, an extra slider on the resistor can be adjusted, after the total resistance has been determined by the method just described, until the voltage on the tubes supplied by the tap is approximately correct. Disconnect all the speaker field wires while making this test.

If a replacement speaker with approximately the same field resistance, and tapped sections cannot be found among the standard speakers listed by manufacturers, a permanent magnet speaker is the solution. Since the resistance of the old field has been determined by substituting a resistor of the size that gave correct tube voltages, the old field can be replaced by a resistor of the correct size if there is another filter choke in the power supply. However, in most cases, the speaker field is the only inductance, or choke in the power circuit and substituting a resistor for it will increase the hum level of the set.

## USING A CHOKE

A choke of 15 to 30 henries should be used in the power supply lead, and its DC resistance subtracted from the resistor value found by the substitution method. The inductance of the choke is not critical. If the set is subject to more than usual hum, use a higher inductance choke.

The PM speaker can be purchased with its own matching output transformer or in some cases, can be found with a voice coil impedance the same as the old electro-dynamic. The voice coil impedance can be calculated with sufficient accuracy from the following rule. Measure the DC resistance of the

voice coil (disconnect coil from the output transformer) and multiply by 1.5. Thus the common 8-ohm voice coil has a DC resistance of 8/1.5 or about 5.25 ohms.

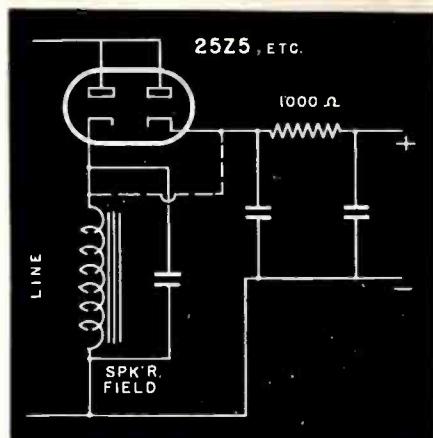


Fig. 2—Separate section rectifiers for fields on AC-DC sets may be paralleled when PM speaker is substituted.

## LESS HEAT

Shunt field speakers operated across the power supply are generally used only on auto sets (field across the battery), some AC-DC sets with a separate section of the rectifier tube supplying the power, speakers with separately excited field supplies, and some PA systems. These may be replaced with a PM speaker without other changes in the circuit. If the replacement is made in an AC-DC set with the separate rectifier section for the speaker field, the rectifier section left free by the change can be paralleled with the section supplying power for the set. See Fig. 2 for the changes to be made in this circuit. This will increase the set voltage slightly and lengthen the life of the rectifier tube.

The use of PM speakers in auto sets will of course save about an amp. on the battery drain.

An advantage of using a PM speaker as a replacement in the small AC-DC sets lies in the fact that no heat is generated by the speaker to add to that of the tubes, ballasts, etc. Less heat means longer condenser life and longer tube life. A few facts like these will help you sell new speakers on many of these jobs.

## Replacing Speaker Cones

In some types of speakers, the fabric voice coil support is cemented to the top-pole plate. This design provides more accurate and permanent center-

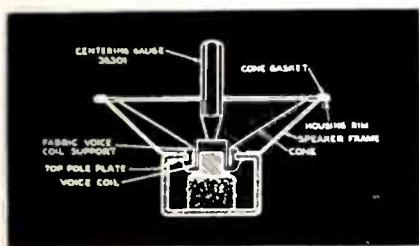
ing, by eliminating possible strain and movement that may occur in tightening the screws on speakers that have adjustable type voice-coil supports.

If the voice coil scrapes in the gap, it may be caused by:

A bent speaker frame. This condition can usually be corrected by bending the frame in the required direction.

A warped voice coil, or a warped voice coil support. This condition requires installation of a new cone, as follows:

Remove old cone by cutting around the cone rim and the voice coil support.



See that the air gap is uniform and clean. Cover the gap with a piece of "scotch tape" to prevent entry of dirt and metallic particles.

Remove all paper and cement from rim of cone housing and from the top-pole plate.

Apply a ring of cement ("Ducos Household") on top-pole plate and around rim of speaker frame.

Carefully insert centering gauge into the voice coil of the replacement cone, handle first, from winding end. Remove scotch tape from the air gap and insert the cone into the speaker, with the voice coil leads in correct position with respect to the terminals. Press cone rim onto the housing rim.

Apply cement on top outer edge of cone and lay the large cardboard cone gasket in place. Set the speaker in an inverted position on a smooth flat surface that has a  $\frac{1}{2}$  inch hole for the gauge handle to clear, until the cement is dry (about 15 minutes). See that the voice coil support is pressing against the cement on the top-pole plate.

Work additional cement around the outer edge of the fabric voice-coil support, to insure positive grip all around between the support and the top-pole plate.

Remove gauge from voice coil, using a rotary motion. Solder the voice coil leads in place, allowing sufficient slack to permit free motion of the cone. Dress the leads in the plane of motion, taking care that the leads do not strike against the cone, or cone housing. Cement dust cap on cone center.

#### Book Review

### VACUUM TUBE VOLTMETERS

Written and Published by  
John F. Rider

404 4th Ave., New York, N. Y.  
Price, \$1.50

The up and coming piece of test apparatus, the vacuum tube voltmeter, is fully covered and explained in Rider's newest book, VTVM. Its 179 pages

are devoted to an explanation of the various types of circuits, such as the diode, triode rectifier-amplifier, tuned VTVM, AF, DC, and AC meters. A chapter on each of these classifications explains simply the theory of operation, typical circuits, and gives the advantages or disadvantages of the particular type.

A chapter on the design and construction of tube voltmeters covers such subjects as input impedance, frequency range, voltage range, permanency of calibration, wave-form error, selection of the meter, power supply, reduction of DC leakage in vacuum tube ohmmeters, etc.

Another chapter covers the methods of calibrating and checking the accuracy of VTVM's. The final chapter deals with the application of vacuum

tube volt and ohmmeters in receiver and amplifier testing. Stage gains, signal tracing, inductance and capacitance measurements, modulation measurements, wave analysis, DC voltage, current, and resistance measurements are some of the topics covered.

Circuit diagrams of commercial vacuum tube meters, and a large bibliography or reading list on this subject is included in the book.

Two new bulletins from the Cannon Elec. Development Co., 420 W. Avenue 33, Los Angeles, Calif., give all specifications, sketches and prices of type "P" and "O" plugs for sound applications and the other type "AP" plugs for radio and telephone circuits.

**IRC**  
INSULATED *Metallized* RESISTORS

They Stay **PUT**

WHY stake your reputation on unknown or doubtful, cheap resistors?

It's easy to be safe—sure—right. Use only IRC Type BT Insulated Metallized Resistors—insulated from end to end—always dependable and definitely superior in such essential characteristics as stability, low noise level, low voltage coefficient, mechanical strength and moisture protection—and branded at the factory with the resistance value, type, color-coding and the well-known IRC trademark.

IRC Resistors will insure you against trouble and safeguard your reputation. They work for you, not against you. They stay put!

**THE KIT COSTS NOTHING EXTRA**

Don't throw your resistors and other small parts into cigar boxes, jars or drawers! Keep them in this IRC All-Metal RESIST-O-CABINET made just for the purpose. Cabinet comes factory-packed with any one of three frequently-needed resistor assortments. You pay only for the resistors—the Cabinet is included. See it at your IRC jobbers or write for details.

**INTERNATIONAL RESISTANCE COMPANY**  
401 N. Broad Street, Philadelphia, Pa.

# INTERCHANGEABLE PORTABLE BATTERIES

**Comparison table of portable radio cells with important data about the characteristic types.**

Classification	DATA										BATTERY MAKERS							
	Voltage	Approx. Size	Approx. Wt.	Acme	Burgess	Bond	Bright Star	Eveready	General	Nat. Union	Philco	Ray-o-Vac	Uselite	Winchester	Willard	Zenith		
A.....	1.5	3 $\frac{1}{2}$ x1 $\frac{1}{4}$ x6	1 $\frac{1}{2}$	123M	4FL	465	3L1	P94L	P94A	634	4816	3L1	...	...	...	...	...	
A1....	1.5	2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x4	1 $\frac{1}{2}$	114	4F	4826	462	4F1	A830	P94	634	4816	4F1	...	...	...	...	
A2....	1.5	3 $\frac{1}{2}$ x2 $\frac{1}{2}$ x4	2 $\frac{1}{4}$	116	6F	4824	660	6F1	A831	P96	627	4814	6F1	...	...	...	...	
A3....	1.5	3 $\frac{1}{2}$ x2 $\frac{1}{2}$ x4	3 $\frac{1}{2}$	118	8F	4829	860	741	8F1	A833	...	P98A	635	4819	8F1	...	...	
A4....	4.5	3 $\frac{1}{2}$ x1 $\frac{1}{4}$ x4 $\frac{1}{4}$	1 $\frac{1}{2}$	123	G3	...	361	746	3H3	...	...	P83A	683	4918	3H3	...	...	
A5....	6	3 $\frac{1}{2}$ x1 $\frac{1}{4}$ x10 $\frac{1}{4}$	2	114S	2F4L	...	868	747	8GF4	...	...	P698L	646	4817	4F4	...	...	
A6....	6	3 $\frac{1}{2}$ x2 $\frac{1}{2}$ x5 $\frac{1}{2}$	3	118S	2F4	4827	866	718	8F4	A834	...	P698A	638	4817	8F4	...	...	
A7....	1.5	3 $\frac{1}{2}$ x1 $\frac{1}{4}$ x10 $\frac{1}{4}$	3	118FM	8FL	...	865	745	...	...	...	P98L	687	...	...	...	...	
A8....	7.5	3 $\frac{1}{2}$ x2 $\frac{1}{2}$ x4 $\frac{1}{4}$	2	...	G5	...	561	...	5H5	...	...	P85A	687	...	...	...	...	
A9....	6	2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x4	1 $\frac{1}{2}$	...	F4P1	...	646	...	4F4	...	...	P694A	639	...	...	...	...	
A10....	1.5	7x3 $\frac{1}{2}$ x7 $\frac{1}{2}$	6	...	20F	4828	20-60	740	...	A832	...	P9203	...	...	...	...	...	
B.....	45	4 $\frac{1}{4}$ x2 $\frac{1}{2}$ x5 $\frac{1}{2}$	2 $\frac{1}{4}$	330	B30P1	3017	30-03	762	V30B	B860	P305	P5303	624	6218	V30B	...	...	
B1....	45	8x3 $\frac{1}{2}$	8	...	B30	3044	30-95	485	V30DL	B850	...	P2303	632	...	...	...	...	
B2....	45	3 $\frac{1}{2}$ x2 $\frac{1}{2}$ x4 $\frac{1}{2}$	1 $\frac{1}{2}$	430	A30	...	30-55	738	V30A	...	...	430P	621	...	V30A	...	...	
B3....	45	3 $\frac{1}{2}$ x1 $\frac{1}{4}$ x5 $\frac{1}{2}$	1 $\frac{1}{2}$	830	M30	...	30-33	482	...	B861	...	P5S30	...	...	...	...	...	
B4....	45	3x2 $\frac{1}{4}$ x4 $\frac{1}{2}$	1 $\frac{1}{2}$	530	A60	...	...	...	V30AA	...	...	BB60P	...	...	V30AA	...	...	
B5....	45	3 $\frac{1}{2}$ x1 $\frac{1}{4}$ x5 $\frac{1}{2}$	1 $\frac{1}{2}$	830	A30X	...	482	...	...	...	...	...	...	...	...	...	...	
B6....	45	3x2 $\frac{1}{4}$ x4 $\frac{1}{2}$	1 $\frac{1}{2}$	830	Z30	...	30-50	738	V30AA	...	620	P7R30	620	...	V30AA	...	...	
B7....	67.5	2 $\frac{1}{2}$ x1 $\frac{1}{4}$ x5 $\frac{1}{2}$	3 $\frac{1}{2}$	830	XX45	...	467	W45A	...	...	...	...	...	...	...	...	...	
AB....	1.5-90	5 $\frac{1}{2}$ x2 $\frac{1}{2}$ x7	5 $\frac{1}{2}$	460-15	5DA60	...	...	...	60A2L	...	...	...	665	...	60A2L	...	...	
AB2....	1.5-90	5 $\frac{1}{2}$ x2 $\frac{1}{2}$ x8	5 $\frac{1}{2}$	460-15MS	6TA60	...	...	...	60A2L	...	...	...	...	...	60A2L	...	...	
AB3....	1.5-90	15 $\frac{1}{4}$ x4 $\frac{1}{2}$ x6 $\frac{1}{2}$	...	...	17G	...	6105	748	60DIIL	N801	P60DIIL	{AB	...	...	...	...	...	
AB4....	6-90	10 $\frac{1}{2}$ x2 $\frac{1}{2}$ x5	6 $\frac{1}{2}$	3604FS	D60	...	...	...	...	...	...	...	...	...	...	...	Z659	
AB5....	1.5-90	6 $\frac{1}{2}$ x1 $\frac{1}{2}$ x12	6	460-15S	6FA	...	...	...	P60A4L	...	{P60A	AB84	AB667	...	60A4L	...	...	
AB6....	1.5-90	7x3 $\frac{1}{2}$ x4 $\frac{1}{2}$	5 $\frac{1}{2}$	860-41	4FA60	...	...	...	...	...	{4L	...	...	...	...	...	Z9B	
AB7....	1.5-61.5	4 $\frac{1}{2}$ x1 $\frac{1}{2}$ x9 $\frac{1}{2}$	4 $\frac{1}{2}$	442-4	4GA42	...	...	...	{P41A	...	{P41A	AB419	AB669	...	{P41A	...	...	
AB8....	6-75	12 $\frac{1}{2}$ x2 $\frac{1}{2}$ x4	5 $\frac{1}{2}$	...	...	...	...	...	{4FL	...	{4FL	AB670	...	...	...	...	Z675	

B7 fits new "personal" portables.

## Extra Profits for Servicemen

Many of the allied radio products can furnish the serviceman with plenty of profit opportunities. Intercommunicators, photo-electric control

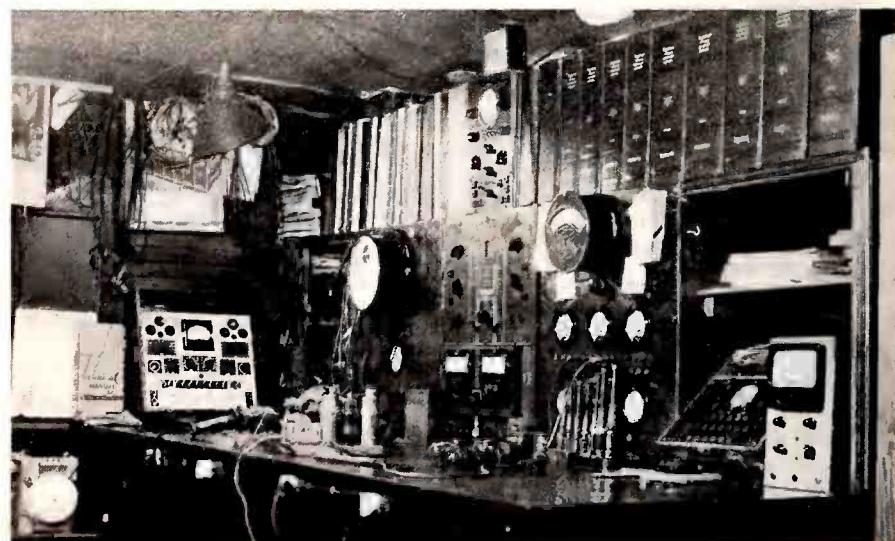
and other large buildings. The possibilities of combining intercommunication with a small home receivers makes an ideal field for extra profits. These combinations can be used in many parts of the home with excellent results. Their double features make them easy to sell and they are simple to install.

A new set announced by Setchell-Carlson, Inc., called the Door-A-fone combines the features of an intercom-

and radio. The model 411 is a 5-tube super for AC/DC. Both the set and remote speakers are of the PM dynamic type. The remote speaker is housed in a weather-proof bell.

The connections for talking from the set to the external speaker and the switching arrangement for Radio, Talk, and Listen positions are shown in the two diagrams. Talking or listening at the set is accomplished by moving a lever switch from one position to

"Operating room" for Mac's Radio Hospital, Rock Hill, S. C. "Dr." L. H. Murray has been in radio biz 20 years. Large panel meter at left end of bench is 0-3ma. movement and was taken from German sub in 1918. Now used for auto radio testing.

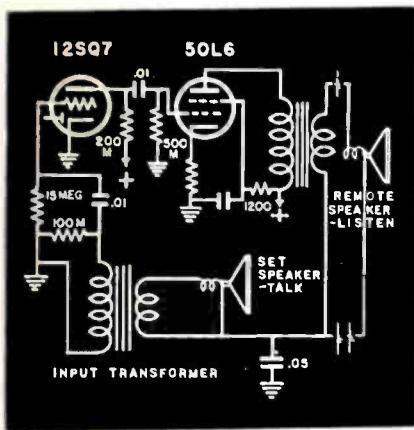


Connections for talking from remote speaker to Dor-a-fone receiver-intercom.

and alarm equipment, door chimes, are some of the possibilities. These things will add to your repair business and as a side line will be 'gravy.'

Intercommunicators, in their more elaborate types are usually only installed in offices, theatres, factories,

the other. The switching circuits transpose the voice coil leads so that the "listen" speaker is across the output transformer, and the "microphone" speaker is across the input transformer; provision is also made for supplying radio programs to the remote speaker. A switch on the rear of the chassis connects the external speaker in parallel with the set speaker.



Connections for talking to the remote speaker from the set. See text.

This type of equipment is easy to install since the only wiring necessary is a rubber covered pair to the external speaker.

### Low Output in RCA Personals

Certain of the BP-10 battery personal sets having the elliptical speaker may suffer from low audio output due to the 1S4 pentode output tube lying too close to the speaker magnet. The magnetic lines of force disturb the electron space charge within the tube and decrease the amplification. Use a small piece of felt between the speaker frame and the tube to keep the tube upright and away from the magnet.

### Simple DC Tube Voltmeter Easily Constructed

A sensitive DC measuring instrument can be improvised from a super having AVC or from a separately constructed unit. The principle of operation of the circuit shown in the accompanying diagram is the variation of amplification of a tube with the change in DC voltage on one of the grids.

A 6J7 or equivalent tube can be used in the circuit. A signal from an oscillator or a 60-cycle voltage from the filament circuit is applied to the control grid. The unknown DC voltage is applied between the suppressor grid and ground across a 10 meg or higher resistance. The plate circuit of the tube feeds into an appropriate amplifier. An audio amplifier is used in the case of 60-cycle signals. The amplifier is connected to an output meter. Since the DC voltage on the suppressor determines the gain of the 6J7, the output meter reading will be an indica-

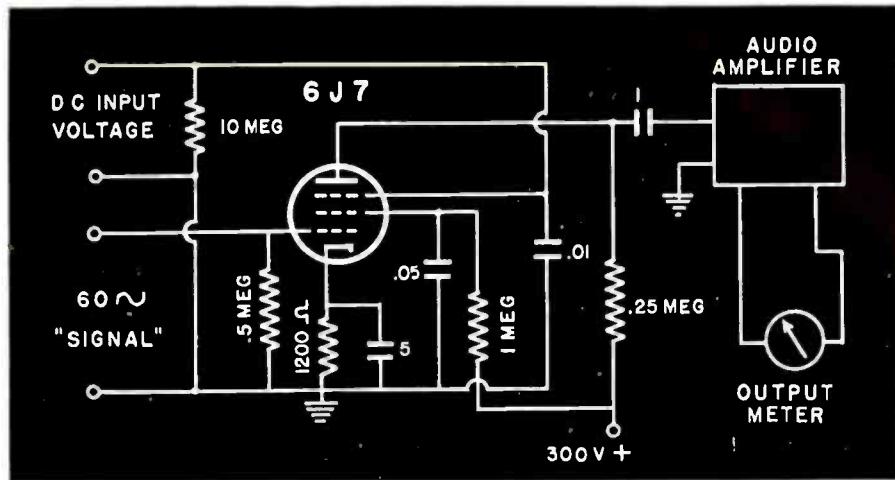


Diagram of the high resistance DC vacuum tube voltmeter using a single 6J7 or the AVC circuit of a super. (see text) Unknown DC voltage on suppressor varies gain of tube and amplification of 60 cycle (or any studio frequency). Signal is amplified and its value indicated on calibrated output meter.

tion of the unknown voltage. By using known values of DC voltage the instrument can be calibrated.

The gain of the amplifier can be reduced until the output meter reads zero with no DC voltage on the suppressor. Any unknown voltage on the suppressor will then cause the meter to indicate the value of the voltage.

The AVC system of a superhet can be opened up and the unknown voltage applied to the controlled tubes to reduce the output reading. A signal

generator can be used to supply the signal. Connect the negative side of the unknown to the AVC bus, and calibrate the system "backward," that is, the higher the voltage, the lower will be the output reading. Zero voltage will be maximum output.

James A. McRoberts, radio serviceman of 48-20 43rd Ave., Long Island City, N. Y., sent this circuit to RADIO TODAY. Other servicemen will find it a handy device for measuring AVC, AFC, oscillator grid voltages, etc.

# "HOMER'S BACK"

Since losing his job in Bud's Radio Shop, our hero, Homer G. Snoopshaw, B. R. S. (Battery Replacement Specialist) really has been up against it—but today he received a letter from Burgess Battery Company offering him a position in Burgess' own Replacement Laboratory—the very spot where the famous Replacement Guide is prepared! What a break—for Homer! And for Burgess!

Homer starts work next Monday, and his position will be "Advisor Extraordinary to Radio Dealers Everywhere." If you are one of the few dealers who don't have a copy of the latest Burgess Replacement Guide, see your distributor or write to Homer, c/o Burgess Battery Company, Freeport, Ill., and you'll get one right away. Answers over 520 portable replacement problems.

**HAVE YOU SEEN**

the New Burgess XX45? Made especially for the new "Personal" Radios—weights less than 12 oz., rated at 67½ volts, and sells for only \$2.25. Equal in service to any of comparable size.

If you are not fully informed on the Burgess line, you'll be doing yourself a favor if you write in for full information—We'd be glad to hear from you.

**BURGESS BATTERY CO.**  
FREEPORT, ILLINOIS

**BURGESS**  
*The Complete Replacement Line*

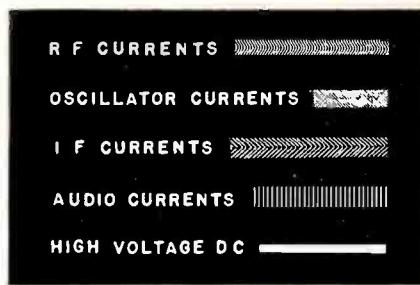
RADIO TODAY'S-

# SIGNAL-PATH DIAGRAM

Another RADIO TODAY first is this new system of presenting set wiring diagrams with the signal current paths easily identified. This new system to be used on RADIO TODAY diagrams will cut down your servicing time by *showing* you just *where* to look for the signal currents and *where they should not be found* if the set is operating normally.

## HOW TO USE IT

On the Wilcox-Gay A-100 diagram note the different cross-hatch patterns overlaying the grid and plate circuits of the various stages. A distinctive pattern is used for each of the different fundamental frequencies found in the receiver. These patterns are graduated in order of the magnitude of the frequencies they represent. That is, the oscillator circuit, which in most cases has the highest frequency currents, is identified with the closest mesh pattern. Next come the RF circuits with a slightly coarser pattern; then the IF wiring; and finally the AF circuit with coarsest marking. The AC power circuits are not marked because of the ease in which they are identified. See the accompanying chart which identifies each of the signal frequencies.



This is the code diagram to be used with all Radio Today Signal-Path diagrams. See example below.

The Signal-Path diagram system tells you seven things at a glance:

1. Where the signal should be and what frequency it should be. This shows you where to place your signal tracing equipment.
2. Parts of the circuit where the signal should not be.
3. Where to measure the signal at each frequency.
4. Where to apply the signal of the correct frequency to get a "dead" set working.
5. Which leads have high DC voltage.

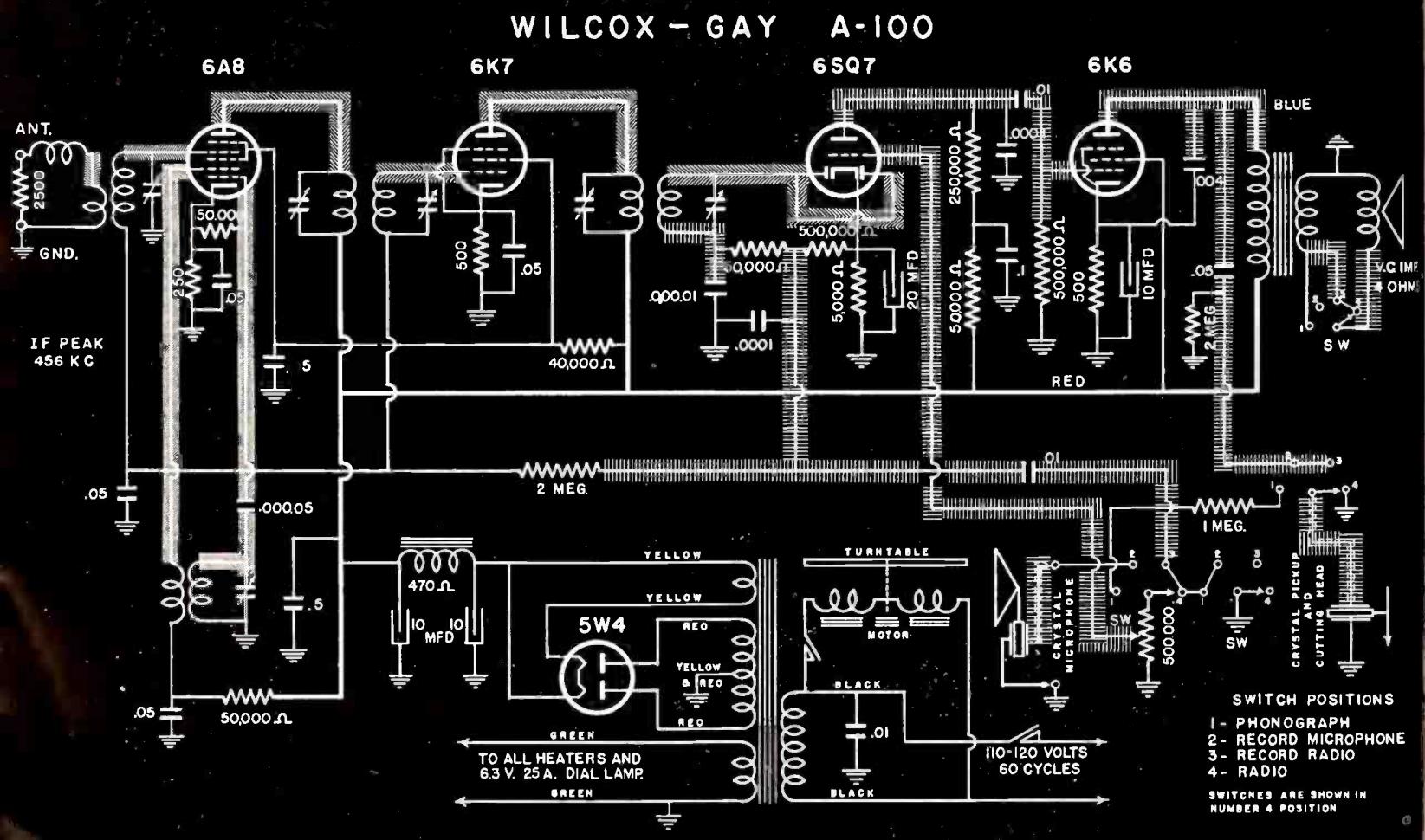
6. Which components are used to couple the signal, and which are used to isolate or block it.
7. The job that each tube is doing.

This Signal-Path system should be of considerable value in analyzing complicated circuits. It will speed up tracing of the circuit and save time in finding the trouble with signal analyzing and tracing equipment now available.

Your comments on this feature in RADIO TODAY will be appreciated by the editors.

## Regeneration in 14BT Series

Excessive regeneration in RCA 14-BT-1, 14BT-2, and 14BK models should be treated as follows. Make sure the grounding lug for the 1N5BT tube shield is fastened to tube socket connection number 1, which is grounded to the chassis. See that the rim of the socket is soldered to the chassis. Realign the IF transformers stage by stage and do not make individual adjustments of the trimmers after alignment. 1N5 or 1A7 tubes with high mutual conductance should be replaced with those having normal gain.



## Philco Has Big Plans for New Portables

A new line of seven portable radios for Spring and Summer has been shown by Philco at sales meetings in five key cities of the country, with extra power, 7-tube circuits, and improved styling demonstrated as features of the sets. All seven are battery-AC-DC units, and therefore have year-round value, as well as immediate interest for the outdoor uses at hand.

All the new units have built-in loop aerials and permanent magnetic speakers, and one model uses a newly developed noise reducing converter tube. Another top unit offers short-wave reception. The new models are represented in the "New Products" section of this issue.

A big-scale promotion drive behind the new line includes extensive advertising, all kinds of dealer aids, sales and consumer pieces, etc.

Other Philco news is that the firm has received an order for 100,000 special auto radios from Chrysler Corp. This order, one of the largest single ones ever to occur in the auto business, will be used in 1942 cars.

## Hamilton Agency Opened in Chicago

V. Hamilton, western sales manager for National Union, has resigned to form his own business, Hamilton Associated Industries, 646 N. Michigan Ave., Chicago.

From his many years of activity in the West, Mr. Hamilton is known to hundreds of jobbers and radio dealers there. Hamilton Associated Industries is a sales agency to radio manufacturers, distributors and dealers.

## Radio Men Cited in Charity Drive

At the conclusion of the recent campaign of the New York and Brooklyn Federations of Jewish Charities, the campaign chairman, Joseph M. Proskauer, former Supreme Court Justice, had special praise for the part played in the drive by executives of the radio, refrigeration, music and allied industries.

Special mentions were given Max Kassover and Jules Smith, co-chairmen; Ben Abrams, Henry Benjamin, Abe Bloom, Bernard D. Cohen, Isidor Goldberg, Ben Gross, Murray Grinbin, Henry Halperin, Jack Leiberman, Jack M. Marks, Irving Sarnoff, George J. Seidman and H. M. Stein.

## Horn Opens Elaborate New Quarters

One of the most up-to-the-minute new radio distributing houses in the Pacific areas is the new quarters of the H. H. Horn Co., Admiral jobbers for southern California, at 24th and Hill Streets, Los Angeles. The main building covers over 10,000 sq. ft., with a trim job of landscaping and a paved parking lot.

Inside, the modern improvements include sound-proofing, air conditioning, and fluorescent lighting. An extra large sales meeting room is designed for dealer meetings, as well as entertainment and refreshment facilities.

Head of the company is Herbert H. Horn, in earlier years an outstanding manufacturer of small radios in California. The general sales manager is Ray Parady, widely known as an expert merchandiser. Horn has branches at San Diego, Long Beach, Bakersfield and San Bernardino, California.

## Two New Stromberg Distribbs

The Auto-Electric Service Co., 1214 Elm St., Manchester, N. H., will now distribute the Stromberg-Carlson line of radios and radio-phonographs in the New Hampshire area. E. P. McAfee, treasurer of the Manchester firm, will be in charge of SC sales.

Another Stromberg appointment is that of the Tri-City Radio Supply Co., 1921 Second Ave., Rock Island, Ill. The Tri-City head, Max Laity, will direct SC sales there.

## Rex Cole Moves

Rex Cole, Inc., the metropolitan distributor for GE appliances, has opened new display rooms and executive offices at 203 E. 42nd St., New York City.



Ken-Rad Dependable Radio Tubes are being used in aircraft instruments where absolute reliability is of utmost importance. You'll find them just as dependable in regular use. Standardize on Ken-Rad Tubes.

KEN-RAD TUBE & LAMP CORPORATION, OWENSBORO, KENTUCKY  
Export Dept., 116 Broad Street, New York, U.S.A. Cable Address: Minthorne, New York

**AEROVOX**  
*offers you*  
**EITHER KIND...**



## EXACT-DUPLICATE REPLACEMENTS

- Yes, AEROVOX and so many servicemen still insist that there's no substitute for an exact-duplicate replacement. Such a unit, as listed, stocked and supplied through AEROVOX jobbers, always LOOKS right, FITS right, WORKS right. It restores the radio chassis to its original "good as new" condition. And that's precisely what the fussy set-owner wants—and is willing to pay for. All of which accounts for page after page of exact-duplicate replacements still retained in the new 1941 AEROVOX catalog.

## GENERAL-PURPOSE REPLACEMENTS

- To simplify matters, however, particularly when a job is "in a hurry," AEROVOX offers the so-called general-purpose or universal replacements. Midget-metal-can electrolytics, cardboard-case electrolytics, medium-sized and large can electrolytics, paper tubulars, uncased paper sections—AEROVOX provides everything and anything you want.

## Ask Your Jobber . . .

- He'll gladly show you what's what in exact-duplicate replacements and general-purpose replacements. Ask for latest catalog—or write us direct.

**AEROVOX**  
CORPORATION  
NEW BEDFORD, MASS.  
IN CANADA: AEROVOX CANADA Limited, Hamilton, Ont.

# Rauland

## A RADIO HALLMARK

Just as the stamp of the master craftsman identifies the finest Sterling Silver, so does the name "RAULAND" symbolize quality and distinction in the field of radio. It is an honored name . . . symbol of integrity and leadership from the very earliest days of the industry . . . rightly respected for ingenuity, resourcefulness and quality in all phases of engineering and manufacturing for the Radio, Sound and Communications fields.

### DEFENSE COMES FIRST!

Today, the major portion of RAULAND'S engineering and manufacturing capacity is devoted to an important phase of the national defense program in the field of radio. RAULAND has, however, continued to serve a limited number of valued accounts. With the passing of the emergency, RAULAND, with vastly increased capacity and resources, looks forward to serving the radio industry again.

In the field of amplifier design and manufacture, RAULAND stands preeminent. Even if we cannot actively serve you now, we'd like to put your name on our mailing list for periodical releases of timely information.

*"It will pay you to remember RAULAND."*

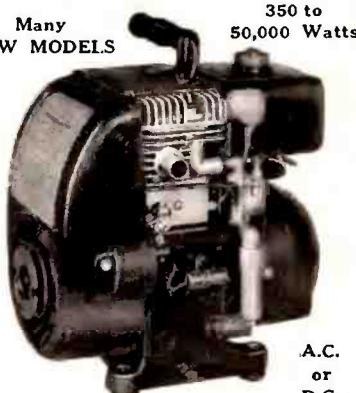
**THE RAULAND CORPORATION**  
3333 Belmont Avenue, Chicago, Illinois

## ONAN ELECTRIC PLANTS

DEPENDABLE  
ECONOMICAL

350 to  
50,000 Watts

Many  
NEW MODELS



ONAN ELECTRIC PLANTS produce a DEPENDABLE source of Electric Current to power Short and Long Wave Radio Transmitters, Receivers and Telephonic Communication Systems in NEWS, ADVERTISING, POLICE and GOVERNMENT FIELD WORK. Operate Lights, Motion Picture Projectors, Motors, and Electrical Appliances. Will promote sales of this equipment in communities where Power Line Service is not available.

ONAN PLANTS are giving uninterrupted Service in ALL PARTS OF THE WORLD on Farms, in Homes, Hospitals, Camps, Theatres, City, State and Federal Departments, and for Emergency STANDBY SERVICE in case of power line failure. Any sizes through 50,000 Watts, in any voltage or frequency: 110 and 200 Volt, A.C.—12, 24, 32 or 110 Volt, D.C. Also Dual Voltage AC-DC Units. Manual, Full Automatic or Self-Starting. Air or Water Cooled.

COMPACT—COMPLETE—READY TO RUN  
Built entirely by D. W. Onan & Sons  
Write NOW for Details  
and attractive sales proposition.

**D. W. ONAN & SONS**  
692 ROYALSTON AVE., MINNEAPOLIS, MINN.

## CAP SAYS:

H. L. M. CAPRON  
Merchandising  
Editor



## Real Salesmen Know the Beaten Path Is for Beaten Men

Vision, courage, originality, initiative are priceless ingredients in building a worthwhile and lasting business.

Yet our own industry—founded on vision, by those with real courage—has long since become a great game of "follow the leader."

Dealers employ "beaten men" because they want to get them cheap—and do—and watch them follow the beaten path of cut-price, long allowance, "make-the-sale-at-any-price."

No small part of the evils of which so many dealers complain stems directly from this simple truth.

When men no longer have vision, they also lack courage. When they lack courage and confidence, they lose their initiative. When they lose their initiative they follow the "beaten path" which leads only to a bitter end.

Alert smart, unbeaten dealers, with initiative, and the courage of their convictions are doing outstandingly fine jobs in all parts of the country.

They spend all their time planning their work, and working their plan, letting their competitors do the worrying.

In every community in the country there is room for a radio dealer who does not follow the beaten path—who knows he and his products are worth their prices—and can prove it.

The radio industry needs this spirit of the pioneer—NOW.

## Emerson Announces "Power Line" of Portables

Now being launched by Emerson Radio & Phonograph Corp. are three new 3-way portables, shown as the first group of Emerson's 1942 "Power Line" for 1942. This trio of superhets are equipped with 3-gang tuning condensers, tuned R.F. amplifiers, and are priced at \$19.95, \$24.95 and \$29.95 respectively. Emerson will use the advertising theme "super power—seven times greater sensitivity," and also points to "another important advance in portable design."

Other features designed to improve selectivity and sensitivity of the new models are outlined on "New Products" pages of this issue.

## Halligan New Chairman Chicago Vet. Assn.

Over thirty members of the Chicago Chapter of the Veteran Wireless Operators Association, attended a dinner at the Lake Shore Athletic Club in that city, in March, to discuss their part in national defense and to further the progress of the Chapter.

The retiring chairman, George I. Martin of R.C.A. Institutes, presented a life membership certificate to the new chairman, W. J. Halligan, presi-

dent of The Hallicrafters Company. Plans were formulated for future meetings to be held at regular intervals.

## Freed Radio Lists 200 NY Dealers

It is announced by Freed Radio Corp., 39 W. 19th St., New York City, that for the first time in over 10 years, more than 200 radio dealers in the metropolitan New York area are set to handle Freed-Eisemann receivers.

Freed says that this selection of dealers excludes all "price stores" and discount houses. The restricted outlet policy by the company follows a survey which showed that buyers of fine radios shop at the better radio-and-music stores, and that FM sets are classed as "fine" radios. Freed-Eisemann units are basically FM, but receive AM as well.

## Five for Admiral

Newly appointed distributors for Admiral radios include Ace Amusement Co., Memphis, Tenn.; F. B. Connally Co., Seattle, Wash.; Kane Co., Cleveland, Ohio; Radio Specialties, Phoenix Ariz.; and Warren Electric Co., Sioux City, Iowa.

## "The Reps" Add New Members

From "The Representatives," national organization of the reps of radio parts manufacturers, comes the news that the group has accepted two new members. These are Leslie M. Devoe, 7345 N. Meridian St., Indianapolis, Ind., and L. D. Lowery, 7101 Westchester Pike, Upper Darby, Pa.

Further news of The Reps is that three of them have new addresses. R. A. Adams of Detroit, Mich., is now at 18288 Appoline Ave.; James M. Cartwright of Memphis, Tenn., is at 1276 Peabody Ave.; and Vernon C. MacNabb of Indianapolis is now at 7032 Warwick Road, Indianapolis, Ind.

## Beebe Joins IRC

Harold G. Beebe has joined the Industrial Division of the International Resistance Co., 401 North Broad St., Philadelphia, Pa. He was for seven years sales manager of Isolantite, Inc., and is well known throughout the trade.

## A Playboy Gets Around

Motorola has reported that sales on its new "Playboy" personal portable have already "far exceeded expectations" and that volume will rise fur-

## Florida Parts Distributor in Action



On the alert for tube and parts business in the flourishing Florida areas is this sales crew of the Thurow Distributing organization, Miami. Behind the counter, left to right, George Sibthorp, Frank Mitchell, Fred Frick, Zeke Riles and H. M. (Doc) Carpenter. The other gentleman is a serviceman customer.

ther with the approach of summer. Outdoor uses of the set, among those who want to keep up with the news and the newest in radio entertainment, are expected to boost demand for the trim unit which carries a guarantee

"to play where other portables fail or your money back." The chrome-trimmed and polystyrene-covered job is being advertised in *Saturday Evening Post* and *Collier's*, as well as newspapers.

# You have a date!

(Two of them, in fact)

**MAY 3** —when forms will close for advertising in the May Issue, featuring announcements of Interim lines and new Portables.

**MAY 29** —when forms will close for the June Trade Show Number, to be distributed at the show in Chicago, June 10-13.



480 Lexington Avenue, New York

## THORDARSON AMPLIFIERS PROVE THEIR QUALITY and FLEXIBILITY



Amplifier panel of this 56 speaker installation.



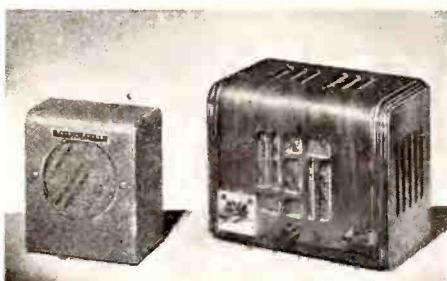
Record Changer and Microphone in executive office.

500 W. HURON ST.  
CHICAGO, U. S. A.

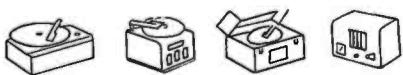
**THORDARSON**  
ELEC. MFG. CO.

TRANSFORMER SPECIALISTS FOR 46 YEARS

## THE "BEST SELLER" IN INTER-COMMUNICATION!



Here's TALK-A-PHONE'S sensational LP-5 Inter-communication System—the best-selling profit-builder in the Intercom field! Master Selective type—works with up to 5 sub-stations; master can call any single sub-station or all at once; sub-stations can call master at will—persons may speak as far as 50 feet from units; includes special "Silent" feature which permits master to be called, yet excludes noise pickup from sub-station. Operates on 110 volts AC or DC. Quality-built, priced right to sell! Write for literature!



### Also—A Complete Phonograph Line!

TALK-A-PHONE also builds a Complete Phonograph line—Profit-Builders all! Wired and Wireless Players, Player-Amplifiers, Automatic Changer-Players—and America's finest Portable Home Recorder! Take on these profitable lines! Distributors—a few choice territories still open. Dealers—see nearest distributor or write us direct. Prices, discounts, literature sent on request.

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

*University*

**HIGH EFFICIENCY is the Vital Factor**  
in any modern SOUND SYSTEM

University Reflex Speakers have the highest possible acoustic efficiency, far greater than any other type of loudspeaker. Only by using UNIVERSITY High Efficiency Reflex Speakers can we obtain the full acoustic output of Modern High Class Amplifiers.

Today the National Defense Program calls for high power sound systems ranging from intercomm systems which must overcome the almost deafening noise of a heavy tank up to the "Iron Bugler" type where sound projection up to five miles is required.

Today sound problems are increasing in complexity and critical requirements. UNIVERSITY manufactures over forty different models of High Efficiency Speakers in order to successfully solve all the problems that confront the modern sound industry.

Write for latest literature on our new low power economy models.

University Laboratories  
195 Chrystie St., N.Y.C.

# SALES HELPS

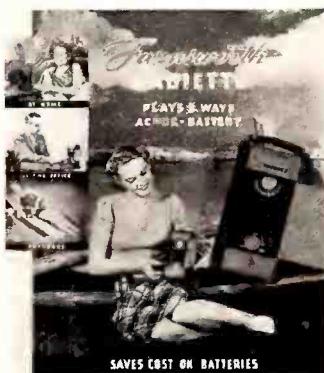
### Complete Demonstrator for Auto Sets

The "Torpedo" auto radio demonstration board, the streamlined-on-rollers display offered by Motorola to help dealers with car radio sales, is described by Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, as "a complete auto radio dept. in itself." It holds five different Motorolas, and there's a battery rack in rear, so that prospects can



see, hear and compare. The display is indirectly lighted, richly trimmed, and Galvin says that it has been known to boost auto set sales 50 per cent.

### Spring Sales Note



Farnsworth thus displays its new Radiette portable with outdoor scenes appropriate to coming of Spring

### Junior Table in Action

A novel display card in four colors is being offered to distributors by Presto Recording Corp., 242 W. 55th St., New York City. It's designed so that customers can operate the new Presto Jr. turntable themselves—they can see and hear the unit in its firm mount at the bottom at the attractive card. The displays come free with a



jobber's first order of the units; among those now in use the report is "a more active demand for higher quality tables."

### Ken-Rad Sales Helps in One Booklet

A handy illustrated summary of all "Selling Helps for Ken-Rad Dealers" has been issued by the Ken-Rad Tube & Lamp Corp., Owensboro, Ky. A wide assortment of displays, mailing cards, price tags, technical bulletins, etc., are shown in convenient at-a-glance style. Copies come from Ken-Rad jobbers or direct from Owensboro.

### Display Accents More Listening

Just released for dealers and servicemen is a brand new window display for spring and summer which attractively says "Spend Your Leisure Listening." It comes from Hygrade Sylvania Corp., distributed through Sylvania jobbers, and is lithographed in eight colors.

There's a color photo of a Powers



model featured here, along with a lively sales message and a slip-on place for an empty tube carton.

## **Stewart-Warner to Show New "Defense" Line of Sets**

A line of 20 new streamlined radios "in the lower and medium priced brackets" will be shown late in May by Stewart-Warner Corp., according to news from SW vice president and general sales manager, Frank A. Hiter.

The announcement says that SW engineers will emphasize performance and quality, and yet through extensive research have been able to find methods and materials to substitute for materials needed in defense industries. Several models of the new line will be designed specially for use of Army, Navy and Marine Corps personnel.



### **CUTTING NEEDLES • PLAYBACK and LONG-PLAYING NEEDLES**

**Y**OU can count on more sales—and more praise—for your recording units when General TRUETONE Cutting Needles are used. They're made with supreme precision by shadowgraph and highly finished. Sell them for all recording—both amateur and professional.

Insist, too, on the use of General OUR OWN Playback Needles, to get the truest fidelity from recorders. . . . And for long life—2000 to 3000 playings—sell General FUTURIS-TIC Long-Playing Needles. . . . General's complete service also provides a choice of 39 other types of Phonograph Needles. Microscopic inspection and rigid tests guarantee closest adherence to service specifications. All needles attractively packaged. Write today for prices.

**GENERAL PHONOGRAPH MFG. CO., Inc.**  
Box 152 • Putnam, Conn.

## **Big Expansion for C-D**

Cornell-Dubilier Electric Corp., makers of electrical capacitors, has announced via its president, Octave Blake, Jr., the purchase of the million dollar plant of the Kendall Co., New Bedford, Mass. This new plant will add over a quarter million square feet of manufacturing space to C-D facilities at South Plainfield, N. J. It is being equipped for large scale production in defense orders and in the rapidly growing regular production of the company. The South Plainfield plant, in which the number of workers has been doubled in a little over a year (now 2,500) will continue in operation.

## **Ken-Rad Picks a Pair of Reps**

The factory representative for Ken-Rad tubes in South Carolina, Georgia, Florida, Mississippi and Alabama is now the Herb Erickson Co., 14 Baltimore Ave., Asheville, T. C. Associated with Mr. Erickson is H. C. Russell, with headquarters at P. O. Box 1803, Atlanta, Ga.

The new district rep for Ken-Rad in Missouri, Nebraska and Kansas is C. E. Moore, 3118 Linwood Blvd., Kansas City, Mo.

## **Gordon Gray Joins Hill Firm**

It has been announced by Ralph M. Hill, electrical manufacturers' representative at 1 N. Crawford Ave., Chicago, that Gordon E. Gray has joined his organization. Mr. Gray, after extensive training in electrical engineering, did research work with Sears Roebuck and other firms and later began sales engineering activity with Ohmite Mfg. Co., where Mr. Hill was general sales manager.

## **Federal in Hollywood**

Francis H. Brown, Hollywood, has been named west coast factory representative for the Federal Recorder Co., New York. He will handle seven western states with headquarters at 1065 Vine St.

## **One TURNER U-9S Does the Job of 4 Mikes**



Sell or Use it for  
a 50 Ohm Mike  
a 200 Ohm Mike  
a 500 Ohm Mike  
a Hi-Impedance Mike  
Simply Flick the Switch

Regardless of what they ask  
for, you can fill their needs  
with the Turner U-9S. With 25  
ft. Balanced cable set, and  
professional gray satin finish,

List. \$35.00. Write for Free Turner Microphone Catalog.

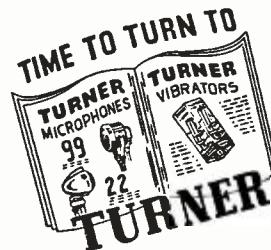
### **TURNER HAND-D**

Fills requirements of  
P.A. men, recorders and  
hams. Can be held in  
the hand, hung by sus-  
pension hook or mounted  
on floor or desk stand.  
Positive contact slide switch permits off-  
on operation. Engineered for voice or mu-  
sic. Dynamic Hand-D,  
List. \$25.00

Crystal Hand-D,  
List. \$22.50  
Crystals licensed under patents  
The Brush Development Co.



## **FREE**



16 pg. Turner  
Vibrator Manual,  
explains Push-Pull  
principle. Write for  
Your Copy to  
**THE TURNER CO.**  
913 17th St. NE.  
Cedar Rapids, Iowa

## **ATTENTION RADIO SERVICEMEN EXTRA PROFIT TO YOU!**

RECOMMENDING NEW RADIOS TO  
YOUR CUSTOMERS CAN BRING YOU  
EXTRA PROFIT. Give your customer  
Extra Value at the Right Price AND  
MAKE MORE MONEY YOURSELF.

NORTH EASTERN RADIO COMPANY,  
representing the world's fourth largest  
radio manufacturer, offers to Radio  
Service Men A NEW SALES PLAN  
WITH CONCESSIONS AND PRICES  
NO OTHER MANUFACTURER CAN  
DUPLICATE; an EXTRA PROFIT  
PLAN entailing no investment . . . no  
middlemen. YOU DEAL DIRECTLY  
WITH THE MANUFACTURER.

*Write for details TODAY!  
No Obligation.*

SAVE UP TO 60% on Nationally Ad-  
vertised RADIO PARTS AND TUBES.  
Our production surplus is available to  
you at our cost—YOU PAY LESS.  
Buy at wholesale Prices. Your first order  
puts you on our mailing list to  
receive our Monthly Parts Sheet. Also  
Free Technical Advice by our Engi-  
neering Department on your Service  
Problems.

*Write now for complete information*

**NORTH EASTERN RADIO CO.**  
80 East 11th St., New York, N. Y.

I certainly would like to know more about  
North Eastern's EXTRA PROFIT PLAN.

NAME .....

ADDRESS .....

CITY, STATE.....

# WORLD'S GREATEST all around

## ELECTRIC TOOL

**DRILLS . GRINDS . SANDS . SAWs**

**POLISHES . SHARPENS . CARVES**

The only DRILL-TOOL with a full year's guarantee

FREE Accessory outfit (Value \$2) includes set of drills, mounted 1½ inch grinder, sanding discs, cutting wheels, mounted brush, polishing wheel, carving burr, etc. FREE with each Tool ordered NOW. We pay postage.

10-DAY TRIAL — MONEY BACK GUARANTEE

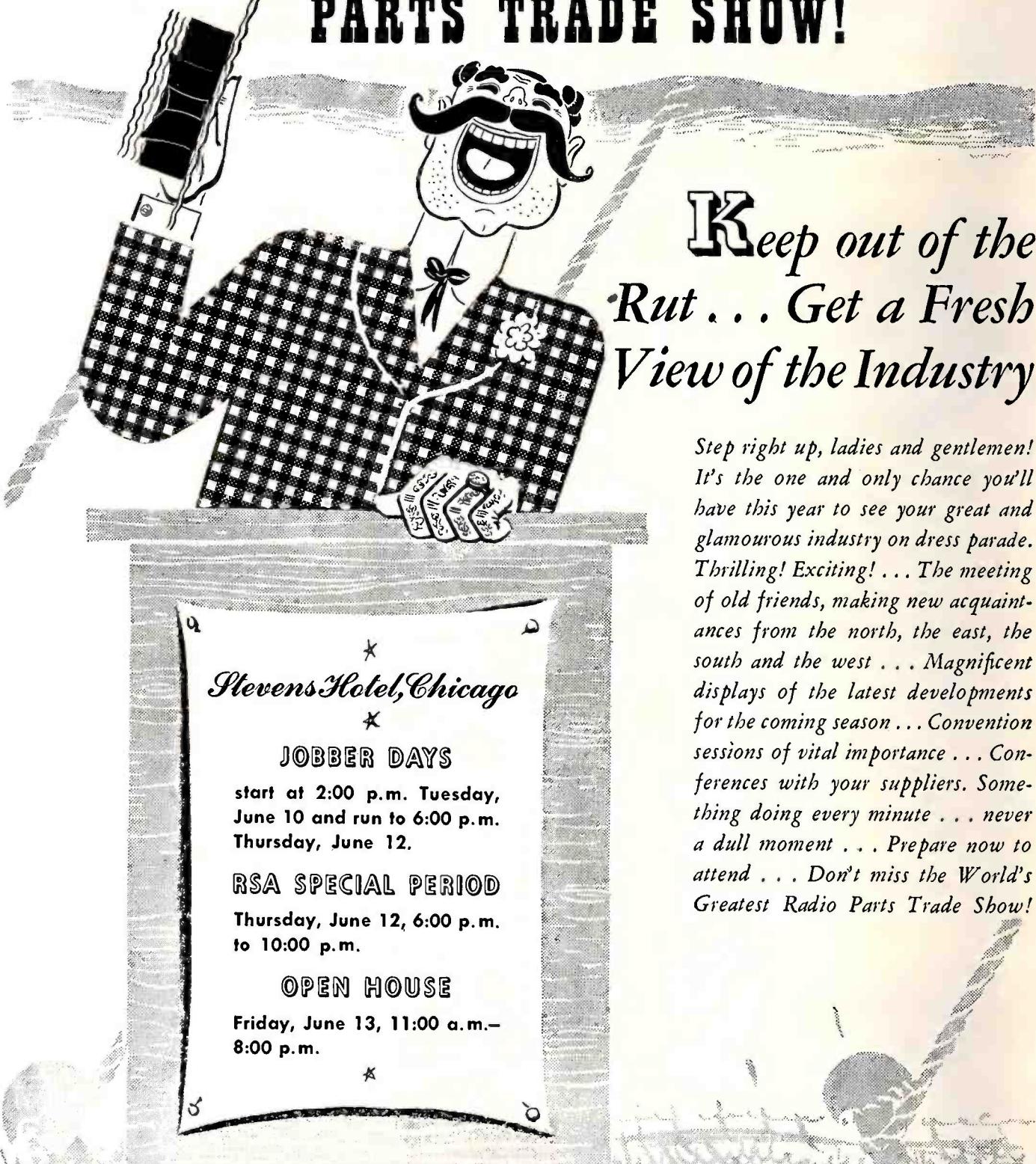
PARAMOUNT PRODUCTS CO. Dept. ART. 545 Fifth Ave., New York



**ONLY \$7.95**  
 POSTPAID  
 GUARANTEED  
 FOR ONE YEAR

*Come On*

# WORLD'S GREATEST RADIO PARTS TRADE SHOW!



**K**eep out of the  
Rut . . . Get a Fresh  
View of the Industry

Step right up, ladies and gentlemen! It's the one and only chance you'll have this year to see your great and glamourous industry on dress parade. Thrilling! Exciting! . . . The meeting of old friends, making new acquaintances from the north, the east, the south and the west . . . Magnificent displays of the latest developments for the coming season . . . Convention sessions of vital importance . . . Conferences with your suppliers. Something doing every minute . . . never a dull moment . . . Prepare now to attend . . . Don't miss the World's Greatest Radio Parts Trade Show!

Stevens Hotel, Chicago

#### JOBBER DAYS

start at 2:00 p.m. Tuesday,  
June 10 and run to 6:00 p.m.  
Thursday, June 12.

#### RSA SPECIAL PERIOD

Thursday, June 12, 6:00 p.m.  
to 10:00 p.m.

#### OPEN HOUSE

Friday, June 13, 11:00 a.m.—  
8:00 p.m.

## Radio Parts National Trade Show

Sponsored by Radio Manufacturers Association and Sales Managers Club  
Executive Office • 53 WEST JACKSON BOULEVARD • CHICAGO

## Dollar Sapphires



A dozen of the re-styled packages of Walco sapphire needles are neatly shown on this new display card from Electrovox, 424 Madison Ave., New York City

## RCA Personal in New Outdoor Sales Campaign

As we go to press, word has come from the RCA Victor advertising manager, David J. Finn, that the company is ready with a big new promotion for its personal radio. The drive will open May 15, and is aimed at the outdoor market. Campaign includes national magazine ads, radio spots, dealer co-op ads, and a new promotion deal whereby the retailer can offer a leather carrying case (list, \$6.50) plus the radio (list, \$20) both for \$20.

Reports are that the radio has sold steadily since its high point last Christmas, and that it will enjoy another sales peak when radio fans start spending more time outdoors. The unit has been improved by the addition of a "Ellipticon" speaker, and a new type support for the cover.

## FM Sales Event in Indiana

FM recently got a big demonstration in Evansville, Ind., when some 250 folks flocked in to the studios of the new FM station W45V, for an event sponsored by Hulman & Co., Stromberg-Carlson distributors, Evansville-on-the-Air, Inc., owners of W45V, and Stromberg headquarters officials. The affair was widely advertised via radio and newspapers, and it succeeded in demonstrating FM abilities in reproducing music, voice, and sound effects.

## Dealers Flock to Record Forum-Dinner

A group of 125 record dealers and salesmen went to the first of a series of monthly forum-dinners to be held by Times Appliance Co., Inc., New York distributors for Columbia records, last month. Al Bates, the Times

Appliance record sales manager, described the meeting as "designed to get dealers acquainted with the many new addtions to the Columbia Masterworks catalog." Speakers besides Mr. Bates included George Prudling, Columbia's eastern sales manager; Goddard Lieberson, of the artist and repertoire dept., and Wayne Varnum, of the sales promotion dept. Times Appliance vice-president Willard Ray presided.

## Ransford the Du Mont Rep in Pittsburgh

Appointment of the H. E. Ransford Co., Fulton Building, Pittsburgh, Pa., as sales representative for Western Pennsylvania and the state of West Virginia, has been revealed by Allen B. Du Mont Laboratories, Inc.

Ransford has a 27-year experience in the area as factory representative among industrial and educational accounts. Du Mont specialization in the application of cathode-ray equipment to research and industrial problems will now be available in this area by closer cooperation through Ransford.

## Shapiro to Pacific for Howard

Now the representative for Howard Radio Co.'s home receivers on the Pacific Coast (including California, Oregon, Wyoming, Utah, Washington, Arizona, Nevada and Idaho) is Charles B.

Shapiro, executive vice-president of the Howard firm. Reports from the area are that sales of combinations there are extra heavy; five cars of them, and three cars of recordings discs were shipped to Mr. Shapiro's customers during early February.

## Hollywood Firm Offers Recording Line

Just announced by National Recording Supply Co., Hollywood, Calif., is a line of four types of recording blanks, coated on paper, bond base, aluminum and heavy alloy base in various sizes. Included in the line is a small blank especially for amateurs. National makes a point of carrying complete recording accessories for home and professional use, including recording machines, assorted blanks, playback and cutting needles.

## Sales Job Now Open

The news has been received by RADIO TODAY that there is now a place for a alert salesman in the organization of a New York manufacturer of a nationally known and advertised product. He needs to have experience and connections in the recording, phonograph and radio fields; and should mention full details in writing to Box 18, RADIO TODAY, 480 Lexington Ave., New York City.



## It's Got to be Right to be TRIPPLET

Nobody "bosses" Chief Elliott, chief of the Triplett inspection line. Production is up,—way up, but nobody puts the heat on "Inspection" for the slightest variation from the most hardboiled inspection scrutiny in the Industry. For it is an axiom in the whole Triplett plant—regardless of position or the pressure of orders—"It's go to be right to be Triplett."

Under expanded Industrial demand there continues to be no compromise in those rigid Triplett standards which have become the International Hallmark of Precision and Quality. For more information write Section 194, Harmon Avenue.

THE TRIPPLET ELECTRICAL INSTRUMENT COMPANY  
Bluffton, Ohio

**THE BIG SHOW  
IS COMING AND  
I'LL BE THERE!**



**JOBBERS, their Salesmen  
and Countermen . . .**

**MANUFACTURERS, their  
Engineers and Sales  
Staffs . . .**

**THE TRADE PRESS and  
its Writers . . .**

**ARMY AND NAVY Signal  
& Ordnance Experts . . .**

**SERVICEMEN  
and AMATEURS . . .**

They'll all get together at this one big show of the Radio Industry . . .

Plan now to attend!

**Stevens Hotel, Chicago**

JUNE 10-11-12-13

**JOBBER DAYS**

Tuesday, June 10 to Thursday, June 12

**OPEN HOUSE**

Thursday Eve. June 12 and Friday, June 13

**Radio Parts  
National Trade Show**

*Executive Office*

53 West Jackson Boulevard • Chicago

## **Superior Tube Expands Plant**

Another big addition to the main plant of the Superior Tube Co., Norristown, Pa., is now being started, according to word from Superior head, S. L. Gabel. The addition will be complete by late May, it is planned. The firm announces a strong upturn in production, and by the middle of the year, expects an increase of 100 per cent. The company is a specialist in small tubing and has a big part in the Defense Program, but the policy is to recognize its obligation to the regular customers.

## **"Diamond" Stunt on Records**

A novel sales promotion stunt on records, called the "Diamond" promotion, is now being tried in the Philadelphia-Camden area, among dealers served by the Raymond Rosen Co., distributors. The plan gets record buyers interested by giving them \$1 record credit, for finding and buying \$4 worth of Black Label or Red Seal discs in the new Victor Record Catalog.

## **Stewart-Warner's Four New Distribrs**

Four new jobbers for Stewart-Warner have been announced by J. C. Elliff, assistant sales manager for S-W. These are Keith Simmons Co., Inc., Cummings Station, Nashville, Tenn.; Appliance Sales Co., Inc., 203 Monroe St., Memphis, Tenn.; Arizona Appliance Mart, 312 E. Congress St., Tucson, Ariz.; and Alemite Co., 315 Yandell Blvd., El Paso, Tex.

## **Higgins Promoted by Hallicrafters**

The promotion of Royal J. Higgins of The Hallicrafters Co., Chicago, has been announced by the firm. He has been in charge of the company's sales promotion for the past five years; he now moves up to the post of director of advertising and sales promotion. It's a part of Hallicrafters' new expansion program.

## **Automatic Salesman**



This trim new floor display comes from Noblitt-Sparks Industries, Inc., Columbus, Ind., and is free at Arvin jobbers with orders of 6 sets.

## **Southeast Gets New RCP Rep**

Milton Reiner, president of Radio City Products Corp., 88 Park Place, New York City, has revealed the appointment of the Herb Erickson Co. to represent the RCP's line of radio and electrical test equipment for Florida, Alabama, Georgia, South Carolina and eastern Tennessee. Herb Erickson is at 14 Biltmore Ave., Asheville, N. C., while his associate Horace Russell will work out of Atlanta, P. O. Box 1803.

## **Webel to Study Markets Abroad**

Henry R. Webel, manager of the export division, G. M. Basford Co., prominent New York advertising agency, left this week by airplane for South America, for a 3-month study of markets and media. His tour will cover Colombia, Ecuador, Peru, Chile, Bolivia, Argentina, Paraguay, Brazil and Venezuela.

## **NOW YOU, TOO, MAY CUT TELEGRAPH COSTS 15% TO 20%**

By letting Postal Telegraph check communications files, others have made astounding savings! This free survey shows up waste, and provides easy-to-follow plan to stop waste permanently!



*For Free Telegraph File-Analysis—With No Obligation to You — Wire Collect: C. B. Allsopp  
Postal Telegraph, 253 Broadway, New York City.*

**Postal Telegraph**

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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.

## NEW BOOKLETS

The 1941 Utah catalog contains complete facts on speakers, vibrators, transformers and Carter parts now being distributed by Utah Radio Products Co., 820 Orleans St., Chicago, Ill.

American Telev. & Radio Co., 300 E. Fourth St., St. Paul, Minn., announces the release of the free ATR 1941 catalog No. 141 covering complete line of vibrator-operated and rectifier power supplies.

Aerovox has compiled its new 1941 general catalog in concentrated form, covering replacement, transmitting and other condensers, resistors and test instruments such as the L-C checker, capacity-resistance bridge and motor-starting capacitor selector. Copy may be had on request from Aerovox Corp., New Bedford, Mass.

The 4th edition of the Clarostat Plug-in Tube-Type Resistor Replacement Manual giving up-to-date listings may be had for 15c from Clarostat Mfg. Co., 285-7 N. 6th St., B'klyn, N. Y.

A new radio testing equipment catalog for 1941 gives illustrations and specifications of the Jackson Electrical Instrument Co.'s line, 129 Wayne Ave., Dayton, Ohio.

The Jessop Steel Co., Washington, Pa., describes its non-magnetic steel in an illustrated pamphlet.

Three new free catalogs are available from Howard Radio Co., 1731 Belmont Ave., Chicago, Ill.—490, technical manual on the 14-tube professional receiver and receiver measurements; 103, on recording discs and needles and 104, communication receivers and accessories.

Insuline Corp. of America announces their new line of auto radio antennas and accessories and new FM, television and home antennas in 8-page catalog being distributed to the trade.

"The Unvarnished Truth about Flexible Varnished Tubing" is the title of the new folder put out by William Brand & Co., 276 Fourth Ave., N. Y. C.

C-D 1941 "Capacitor Manual for Radio Servicing" presents in its 300 pages all available data pertaining to capacitor replacements in standard receiver models. Cornell-Dubilier Corp., So. Plainfield, N. J.

RCA Transmitting and Special Purpose Tubes is the title of a new booklet listing characteristics, ratings and curves for transmitting, television, phototubes, and other special types. Available at RCA distributors.

### It's Easier to Sell Simplified Changers, Low-Cost Recorders

Customers spot the differences right away: the trim, streamlined appearance and easy, simplified operation of a combination equipped with the ONE-LEVER General Industries C-120 record changer. Just as readily, they want the saving in cost, and the better recording and reproduction you can offer when you demonstrate a GI-R70 low-cost home recorder.

For installation in new instruments as well as in remodelling jobs, get the advantages of General Industries assembly-line lower costs, and 39 years of phonograph motor designing and building leadership.

Send for catalog and prices.



GI-C120 record changer. One lever adjustment sets changer for 10" or 12" records or manual playing. Direct-drive motor. Tangent-tracking crystal pickup.

### The GENERAL INDUSTRIES CO.

DEPT. 15, ELYRIA, OHIO

Order Cutting and Play-back Needles from our affiliate, General Phonograph Mfg. Co., Inc., Putnam, Conn.



## Preferred Type



The central figure in RCA's new series of displays on its preferred type tube program, drawn by famous Rolf Armstrong.

## New Sylvania Tube and Data Sheets Released

A low current drain output pentode for use in battery portable receivers has just been announced by Hygrade Sylvania Corp., Emporium, Pa.

The 1LB4 is of loctal construction and delivers 200 mw. with a filament current of 50 ma. and plate current of

6 ma. The plate load resistance should be about 12,000 ohms and a fixed bias resistor about 1,300 ohms.

Complete set of data sheets on the 17 types of loctal tubes in the Sylvania line has also been issued. Base connections, electrical characteristics, and circuit applications are given in the sheets which are punched for standard 3-ring binder.

## New Volume of RCA Service Notes

Bound volume of the service notes for all 1939 and some 1940 radio and radio-phono models has 480 pages with over 500 illustrations. More than 150 circuits are shown in the \$1.50 11th edition. Also included are the instruction-service notes for RCA test equipment; Signalyst, Rider Volt-Omyst, cathode ray oscilloscope, tube tester, etc. Also included is the 48-page edition of the Rider Chanalyst instruction book.

## Rutledge to Rio

Maurice L. C. Rutledge, who has been appointed regional manager for Crosley products in South America, has sailed to Rio de Janeiro to establish headquarters there for Crosley radios, refrigerators, washers, ranges and cars. He was recently named by Crosley export division manager R. L. Hambleton to direct the rapidly increasing sales throughout South America.

## What Dealers Must Do

There's always time, and the occasion, for dealers to get back to the main principles of business conduct. These principles consistently get emphasis in Milwaukee, where the Wisconsin Radio, Refrigeration & Appliance Association continues to champion the idea of cleaner business.

The WRRAA now draws attention to another "business creed for dealers", a 10-point "must" list suggested by the E. H. Schaefer Corp. The principles are as follows:

1. I must do business at a profit.
2. I must think and act as my customer's Purchasing Agent.
3. I must deal only in quality merchandise.
4. I must know my merchandise.
5. I must carry a representative stock of sizes and models.
6. I must identify my store in the community.
7. I must advertise my business.
8. I must dedicate myself to the continual improvement of the standard of living.
9. I must refrain from belittling my competitor and his merchandise.
10. I must earn and deserve the public confidence and good will.

## Philly Servicemen Hear Two Experts

Feature program for the February meeting of the Philadelphia Radio Servicemen's Association was arranged by the local Stewart-Warner jobbers, working with the Ken-Rad Tube & Lamp Corp. The Ken-Rad engineer E. V. Kesheimer appeared with a talk on "Noises in Radio Tubes" and Max Schinke of the SW firm spoke on "Equipment for Radio Servicing." Guests totalled 150.

## Howard Names White

Delos H. White has been named by Howard Radio Co., Chicago, as representative in Georgia, Alabama and Florida, on household receivers and recording discs. Mr. White will have full power to name distributors and dealers for these states.

## Gunther With SC

A newcomer to the sales staff of Stromberg-Carlson's branch in Chicago is Jerry Gunther, who has had a long experience in the radio business. He will contact the trade in the Chicago metropolitan area.

## Columbia Distrib

Appointment of the Watts-Newsome Co., 1705 First Ave., North, Birmingham, Ala., as Columbia records distributor in the Birmingham area has been announced by Paul Southard, sales manager for Columbia Recording Corp.

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Model RBSHk, hi-imp: (RBSk, 200 ohms); LIST \$32.00

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# "They're made right to SELL right!"



Olson Brothers, Irving (left) and Sidney (right), RCA Tube and Equipment Distributors of Akron, Ohio, look over a group of finished RADIOLA models, at the RCA Plant in Camden . . . discover several reasons why RCA Equipment means profits!

"You can get out of a product only what is put into it," say the Olson Brothers.  
"And RCA packs merchandise with the quality that sells!"

AMERICA, today, is more *quality-conscious* than ever before. If products are *made right*, they'll *sell right*.

Tube and Equipment Distributors who have visited the RCA plants have seen for themselves sound reasons why RCA products boost profits. The engineering is there. The features of design are there. And the *workmanship* is there, too—

quality craftsmanship that must measure up to the RCA name . . . the greatest name in radio.

That's one reason why men like the Olson Brothers . . . the men who know the radio business best . . . are glad to have the RCA symbol on their door—and why they think so highly of their RCA Tube and Equipment Franchise! It will work equally well for you.



**WHERE ELSE CAN YOU OBTAIN THIS SUPPORT?**

*Grow  
with the*



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In Canada, RCA Victor Co., Ltd., Montreal

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