



HERE YUH ARE! HERE YUH ARE, FOLKS—here's the greatest attraction since Salome danced with those famous Seven Veils or the Magic Carpet cut aerobatic capers in old Baghdad. But. more than that, it is your first chance to cash in on the biggest promotion since Mark Antony made his pitch to Cleopatra on the banks of the Nile.

YES, IT'S YOUR FIRST BIG OPPORTUNITY FOR FABULOUS FIFTY—your first big chance at those Fifty Fabulous Specials for February. You have all received your announcements of this new Philco promotion by this time, and you know that this is not just the old malarkey—these are real hor est-to-

goodness bargains. Think of it -5" PM Speakers -famous Philco Test Equipment--Hex and Spline Wrench Kits-Deluxe Philco Phonograph Needles -- Vernier Conversion Kits---5", 4-ohm Auto Radio Speakers-Phillips Screw Davers--6' Aluminum TV Masts Mast onpecting Clamps -All-Purpose Pliers with wire cutting sections-7-vatt, 110-volt Screw Base Lamos Hexagon Wrenches Self-Mounting Condensers - Phi co Vibrators - Philco Refrigerator Polish --Freezor Baskets - Chick Release Le-Cube Tray -73 rpm, 110-volt. 60-cycle Phonograph Motors-Transformers --- Universa? I-F Coils---Philco Service Manuals-and dozens

TOUR FIRE DISCONTRACTOR ACTION

Continued on page 2)

## PHILCO FOR '50 DESIGNED FOR t-h-e T-h-r-i-f-t-y

With the wild skirling of highland bagpipes lending an authentic Scottish air to the occasion, the Philco Mid-Winter Distributor Convention —held in Chicago's famed Palmer House, January 5 and 6—was keynoted by the slogan "PHILCO FOR '50 DESIGNED FOR THE THRIFTY".

Page

Here Philco Distributors from all over the United States were treated to a preview of the 1950 models of Philco Television Receivers, Refrigerators, Home Freezers, Air Conditioners, and a brand new product. the Philco Electric Range.

Philco's top executives introduced each product to the assembled Distributors, and emphasized the fact that while these 1950 models were designed to sell at the lowest prices in years, there had been absolutely no relaxation of the strict Philco Quality standards. This is the type of situation for which the general public has been waiting ever since the end of the war—Philco products. Famous for Quality the World Over, available at prices within the reach of even the most modest income. You can see that this will be a banner year for you as a Philco Dealer!

By this time you have probably seen all the new 1950 Philco products —you have probably heard all about the new low prices—and now you know why the Distributors were so enthusiastic about what they saw and heard in Chicago. 1950 will be a Philco year because PHILCO FOR '50 is really DESIGNED FOR THE THRIFTY.

### Here's A New Philco Television Yearbook

Containing complete service information for all the Philco Television Receivers built during 1947 and 1948, a new yearbook is now available from your Philco Distributor.

#### Fifty Fabulous Specials . . .

(Continued from page 1)

of other items, making up FIFTY Fabulous Features for February at out-of-this-world prices!

And that's not all .... "tell you what we're gonna do"—next month, and the next month, and the next, your Philco Distributor is going to offer these and many more of the most fantastic, unbelievable bargains in Philco Accessories that you have ever seen. Watch for them at the sign of the Jovial Genie—that merry Moslem who can help you fill the till to overflowing with coin of the realm —good old American "bucks". Schematic diagrams — alignment procedures—base views—circuit descriptions—aerial connections and wave traps—replacement parts lists —waveforms—production changes and special service data are all avail-



able in this one volume. In addition, all production changes are noted and classified by run and code numbers. In other words, really *complete* service information on these Philco Television models.

Your Philco Distributor has a copy for you—better see him right away.

## Locating Intermittent Radio Troubles

The first of a series of three installments dealing with one of the most baffling phases of radio servicing.

The radio serviceman usually welcomes any new ideas on the subject of intermittent troubles. His interest is naturally keen on this subject, because intermittent receivers are his greatest headache. It is comforting, at least, to realize that sources of practically all troubles of this type are simple to classify; they can be reduced to (1) intermittent opencircuit conditions in condensers, (2) intermittent open or short-circuit conditions in tubes, coils, or wiring, and (3) changeable high-resistance connections. The difficulty, of course, lies in finding exactly what component is at fault.

The speed with which the trouble can be located depends upon two things: (1) the time required (if any) for the trouble to occur; and (2) the ability to locate the trouble before the operation becomes normal again. If it is impossible to locate the trouble on the first try, it is important to be able to eliminate a section of the receiver from suspicion while the operation is still abnormal. By eliminating a section each time the trouble occurs, the cause is narrowed down to a single stage, and finally to a specific part. This discussion gives pointers on analyzing the symptoms, and presents information on the test methods used most successfully by top-notch servicemen.

#### Consulting the Customer

Before turning on the set, it is extremely important to question the customer in detail concerning the nature of the trouble, and the conditions under which the trouble occurs. You should learn from him whether the trouble occurs only during the day, only during the night, or at unpredictable times—how often the trouble occurs—whether it occurs immediately after the set is turned on, or after a certain period of time whether it occurs only on moderately

(Continued on page 4)

## NO SMOKE! NO SOOT! NO STAIN! New PHILCO Electric Range Scores a Bulls-Eye with Sales Appeal — Opens New Service Category

The Philco Electric Range for 1950, announced at the Philco Mid-Winter Distributor Convention in Chicago, is causing the rest of the industry to raise their sights in order to come somewhere near the mark that this new piece of Philco kitchen equipment has set. Distributors, dealers, and consumers throughout the Country-in fact, everyone who has seen this great new addition to the Philco family has been impressed with the luxury features included in these popular-priced ranges. Two of the more sensational of the famous 50 Philco features are the double ovens and the revolutionary new Philco Broiler which, by means of its "Broil Under Glass" principle, eliminates the spattering of grease on red-hot broiler coils-the prime cause of smoke, soot, and stain.

Naturally, these new Electric Ranges go into homes throughout the Country backed by Philco's guarantee of lasting quality and dependable operation, and thus they have opened up a whole new category of PHILCO SERVICE. With this in mind, on the way to the Distributor Convention in Chicago. the top men of PHILCO SERVICE headquarters staff and all the Philco Field Service Engineers stopped off at Mt. Clemens. Michigan, for a tour of the modern. 23-acre plant that is the home of Philco Electric Ranges. Practically a short course in the principles of electric-range construction and maintenance, the tour was conducted by Mr. Emil Heinrich. service manager of Philco's Electric Range Division.

All the details involved in setting up this new PHILCO SERVICE category have been completed, and your Philco Distributor will be taking applications for membership in the near future. Authorized members in this new category will be supported by the same type of home office organization, and supplied with the same top-notch technical assistance, that have made PHILCO SERVICE famous and respected all over the world.

Here's another chance to add to your servicing knowledge and your bankroll. The more appliances that you are capable of servicing, the greater your money-making potential. Check with your Philco Distributor and watch the Merchandiser for further details.







## Philco Offers New TV Installation Accessories For 1950



Here is a great opportunity to fill all your TV installation hardware needs from one source. Your Philco Distributor now has one of the finest, most complete lines of these accessories ever offered.

There are screw eyes, all-angle base mounts, brackets, insulators, standoffs, turnbuckles, steel-strand guy wire, hanger strapping, aluminum ground wire, mast connectors, ground clamps, hook eyes, and floating guy rings, to name only a few items of this "super" stock of TV installation essentials.

Ask your Philco Distributor about these new products that will save you time and trouble on all your TV aerial installation work.

#### Locating Intermittent . . .

#### (Continued from page 2)

weak stations, only on strong stations, or only on one particular station. When operating the set, be guided by the specific information you have obtained.

IMPORTANT: If the intermittent condition occurs only when the set is tuned to a relatively weak station, avoid tuning across a strong local station, and keep the volume at a moderately low level. The shock resulting from a strong signal may "weld" an open circuit, and prevent the condition from occurring for a long time afterward.

#### Locating Intermittent Tubes

Since tubes are common offenders. and are easy to replace, it is logical to first clear them as the source of the trouble. However, tubes should not be removed immediately from the set and tested in a tube tester. A tube tester is of doubtful value in locating some types of intermittent conditions within a tube. Furthermore, disturbing the set or the tubes by removing them may clear up an intermittent condition in the tube, tube socket, or associated components for a considerable time, without your knowing what happened; leave the tubes in place until the cause of the trouble has been isolated. All testing for trouble in the intermittent set should be done with the set operating.

To check the tubes for intermittent troubles, tap each one at the top end with a fibre rod of the type used for alignment work. Tap each tube from several directions. If disturbing a particular tube appears to bring on the trouble, replace that tube with a new one, and tap the new one thoroughly to determine whether the trouble still exists. Carefully wiggle the tube around in its socket. If the trouble still occurs, it is likely that the cause of the trouble is not in the tube which was removed, but is in one of the socket connections or one of the parts mechanically or electrically associated with that socket. Do not clean or dust the chassis any more than necessary until you have located the trouble; the less the set is disturbed, the better the chances of locating the trouble.

If, after carefully giving the tubes a "going over", you are unable to make the trouble show up, it is best to analyze the possible causes of trouble and lay a plan of attack.

A methodical approach to the hardto-crack cases will be discussed in the following installments. Don't go away!

A LMOST anyone who makes his living by retail selling can take a tip from the point-of-sale advertising efforts of the Coca-Cola Company. Walk into any drug store and almost the first thing that strikes your eye is "Have a Coke" or "The Pause That Refreshes" set in an attractive frame of red and gold and surrounded by beautiful women, handsome men, or happy teen-agers. This type of excellent display work is largely responsible for the position of leadership that the Coca-Cola Co. holds in its particular field. Here's a chance for you to cash in on the same type of smart merchandising.

#### **Dramatic Displays**



To attract the attention of prospective customers, merchandise must stand out from its background surroundings in such a way as to excite curiosity and arouse interest. The Philco Accessory Division has prepared-for you-a series of dramatic displays that are guaranteed to do a bang-up selling job. There are displays for needles-batteries-tubesaerials-and other items too numerous to mention or illustrate-all prepared by merchandising experts, and thoroughly tested for attention-getting value and sales effectiveness. These units have boosted profits for dealers from coast to coast.

Now is the time to take advantage



## Dramatic Displays Point The Way To Greater Profits





of these sales-but the remember, soiled displays are we so check your

And <sup>۲</sup>.roken at all, with a thought to modernization or profitable additions. Your Philco Distributor has the answer to your display problem—see him today.

#### World Radio History

## New TV Aerial Added To Philco Line



To round out Philco's TV aerial line, we are adding a new High-Low Folded Dipole Aerial and Reflector Kit, Part No. AD1441, suggested list price \$13.75. This new addition features broadband characteristics, 52 to 216 mc., including FM; maximum flexibility of orientation; rugged bakelite insulation; all-angle base mount; and twin-lead jumper. It is shipped partially assembled, and includes two five-foot masts and all necessary hardware for easy mounting.

See your Philco Distributor about this new aerial, engineered for maximum performance, priced for volume sales.

### POSTAL NOTE: BOX 6738 FOR MERCHANDISER ONLY

Hey men, we have been getting all kinds of mail from some of you concerning replacement parts, warranty costs, and all sorts of miscellaneous items, all addressed to P. O. Box 6738. Well, it so happens that this box was set up to handle Merchandiser mail only. For example, if you have a suggestion for the \$10.00 Philco Merchandiser Idea Award, a question for the Question and Answer department, or some ideas, opinions, or comments concerning our publication, write to us at P. O. Box 6738. However, if you

### Adapter Converts Large Center Hole of 45 RPM Records

These are the days of many record speeds and sizes—10'' and 12'' records playing at 78 rpm—7'', 10'' and 12'' records playing at  $33\frac{1}{3}$  rpm— 7'' records playing at 45 rpm. But the new Philco Record Changer, Model M-20, keeps the situation well in hand by playing all sizes and speeds with equal ease and tonal quality.

#### **Converts 45 RPM Records**

Unfortunately, the 45 rpm records are pressed with a large center hole for use on special changers. To use these records on the Philco M-20 and many other makes of record players, it is necessary to convert this large center hole to the standard size so that the record can be played properly. One of the easiest ways to do this successfully is to make use of the Philco 45 RPM Record Adapter Disc and Non-Slip Driver (patent pending).

Although a supply of these Adapter Discs is included with each Philco radio and television set using the M-20 Record Changer, many additional discs can be sold to customers making subsequent purchases of 45 rpm records.

#### **Attractive Counter Display**

To help you move these items across your counter at a profitable speed, Philco has prepared an attractive counter card, Part No. 45-9575, that will focus attention on the Adapter Discs and arouse interest in their function. Done in brilliant colors, this card holds six cellophane packages of six Adapter Discs each, and not only displays the merchandise so that the prospective customer can't possibly miss it, but also clearly il-



lustrates the way in which the Adapter Discs and the Non-Slip Drivers are to be used. Speaking of the Drivers, Philco has completely solved the problem of slippage of 45 rpm records with this device, which merely fits over the spindle of the record changer. When the records are placed on the spindle, they cannot possibly slip. Be sure to emphasize these important points concerning the Non-Slip Drivers to every purchaser of Adapters.

#### Sure-Fire Sales Appeal

The Adapter Discs, Part No. 54-4744, have a suggested list price of six for  $25\phi$ , and the Non-Slip Driver, Part No. 56-7747, has a suggested list price of  $20\phi$ . How can you miss at these prices? With the natural appeal of convenience, and ease of installation, and as a solution to a knotty problem, these products should sell like hot-cakes. Be sure to ask your Philco Distributor about them.



World Radio History

"A" Street and Allegheny Avenue Philadelphia 34, Pa.

Correctly addressed mail reaches its destination with a minimum of handling and delay, and ensures your request of prompt attention. Thanks. PHILCO Service and

### MERCHANDISER

#### MIKE FARAD sez:

### Magnetic Test Lead Holder Attracts \$10.00 Award

February's \$10.00 Merchandiser Idea Award goes to Mr. Leon Brandeberry, 1406 Kitch Ave., Fort Wayne, Indiana. Leon has suggested a gadget that will help you with that problem of keeping your equipment handy and your shop neat and orderly.

This is the way Leon explains it:

"Here is a test lead holder that has proved handy around the shop. It was made by simply mounting a magnet from a discarded P.M. speaker on the wall by the end of the bench. Any test leads having plated steel clips are just placed against the magnet as shown in the photograph, and are held in an easily accessible position".

Our thanks and a \$10.00 check to Leon Brandeberry for his suggestion that should prove to be a useful addition to your shop equipment.



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rse than none present setup

We are sure that there are a lot more of you men that have been in the servicing business long enough to have developed little kinks and (Continued on page 8)

rld Radio History



Give your customer relations an "assist" by posting the Philco Standard Labor Charges Plaque (PR-1749) in your shop. Only 75¢ at your Philco Distributor, it lets folks know that they are getting reputable service at reasonable prices.



### Your \$10.00 Check Is Waiting Here

That's right! If you're a dealer or serviceman, and if you're used any successful idea for promoting more business or speeding up service work, we want to hear about it. And for \$ \$ \$, too.

We're particularly interested in hearing about any promotion for selling Philco parts or accessories, such as tubes, batteries, aerials, and so on, or any gadget or system you've used in your service work that has really proved helpful.

Every letter or photograph printed rates \$10.00. Material submitted becomes the property of Philco Corporation. If you can use a \$10.00 bill, think hard! Come up with a good idea, and then send your letter to us, right away! Address all mail for the Philco Service and Accessory Merchandiser to:

> PHILCO CORPORATION P. O. Box 6738 Philadelphia 32, Pa.

IO:

## PHILCO Service and Accessory MERCHANDISER

### Tips For Rattle Removal In Auto Radio

Page



Last month in our Question and Answer column, we answered a problem concerning a rattle in an S-4927 auto radio tuner. Here are some other hints as to what can be done to remove bothersome buzzes or rattles in this unit.

In addition to the fix suggested in January, it is helpful to add #4 Dow Corning Compound to the top and bottom of the six push-button slide bars where they enter the assembly frame. The compound can be easily applied with a small, stiff brush.

Since vibrations from the speaker are transferred to the tuning unit through the front cover, it may be necessary, in stubborn cases, to glue a piece of felt to the inside of the front cover, at the point shown in the illustration. The felt should be approximately  $2\frac{1}{2}$ " x  $\frac{5}{16}$ " x  $\frac{3}{32}$ ".

Noises, buzzes, and rattles, generally considered as relatively minor troubles, can have a serious effect on customer relations. Do your best to make the set absolutely noise-free you'll find that the extra effort pays off in the long run.

### Magnetic Test Lead . . .

(Continued from page 7)

short cuts that might be helpful to some other serviceman—and—could quite easily win you your easiest \$10.00 in years. How about ser ling them along to the Philco Service and Accessory Merchandiser, P. O. Box 6738, Philadelphia 32, Pa.?

# Questions and Answers

- Q. I have a Model 1104 television receiver which "motorboats" when first turned on. The trouble disappears after about 30 seconds. Can you suggest a remedy?
- A. This may be caused by a 7F8 mixer-oscillator tube which has low emission. Replacing the tube will correct the trouble.
- Q. We have a customer's TV set in which an arc occurs between the metal ground spring and the outer coating of the picture tube. How can this be corrected?
- A. Probably the high-voltage filter condenser of the anode supply is open, allowing pulsating d.c. to be fed to the picture-tube envelope. Substitution of a new high-voltage filter condenser is recommended.
- Q. What is meant when a lead in a schematic diagram appears to be looped around another lead, but is not connected directly to it?
- A. This schematic representation indicates that one wire is actually around the other—but insulated from it—to provide a very small capacitance, usually for feedback or coupling purposes.
- Q. I often find it necessary to disconnect a number of tubular condensers in a radio, to test them for leakage. When I un-

solder and untwist the leads from where they are connected, I often find that one or more of these condensers has become open, or intermittent, due to the strain placed on the leads by removing and resoldering. Is there any simple way to avoid these troubles?

Yes. When it is necessary to Α. temporarily disconnect a tubular condenser (or any delicate part) from the circuit, it is best to snip one of the leads, close to the soldered connection, with a pair of diagonal cutters. When reconnecting the part, it will usually be necessary to add an extension to the lead, in order to make a good connection. This is easily and quickly done by using a short length of solid hookup wire, with a small eyelet formed at one end by the use of needle-nose pliers. Slip the eyelet over the lead which is attached to the part, and solder the eyelet. Then connect the free end of the hookup wire by twisting it around the desired point and soldering it.

Any questions? Send them in. We'll do our best for an answer. Our address is just below to the left.



POSTMASTER: If addressee nas moved, notify sender on Form 3547, postage for which is guaranteed. When Form 3547 is sent, abandon this mailing. Return only if no correct address is available.