

RADIO

*and
Television*

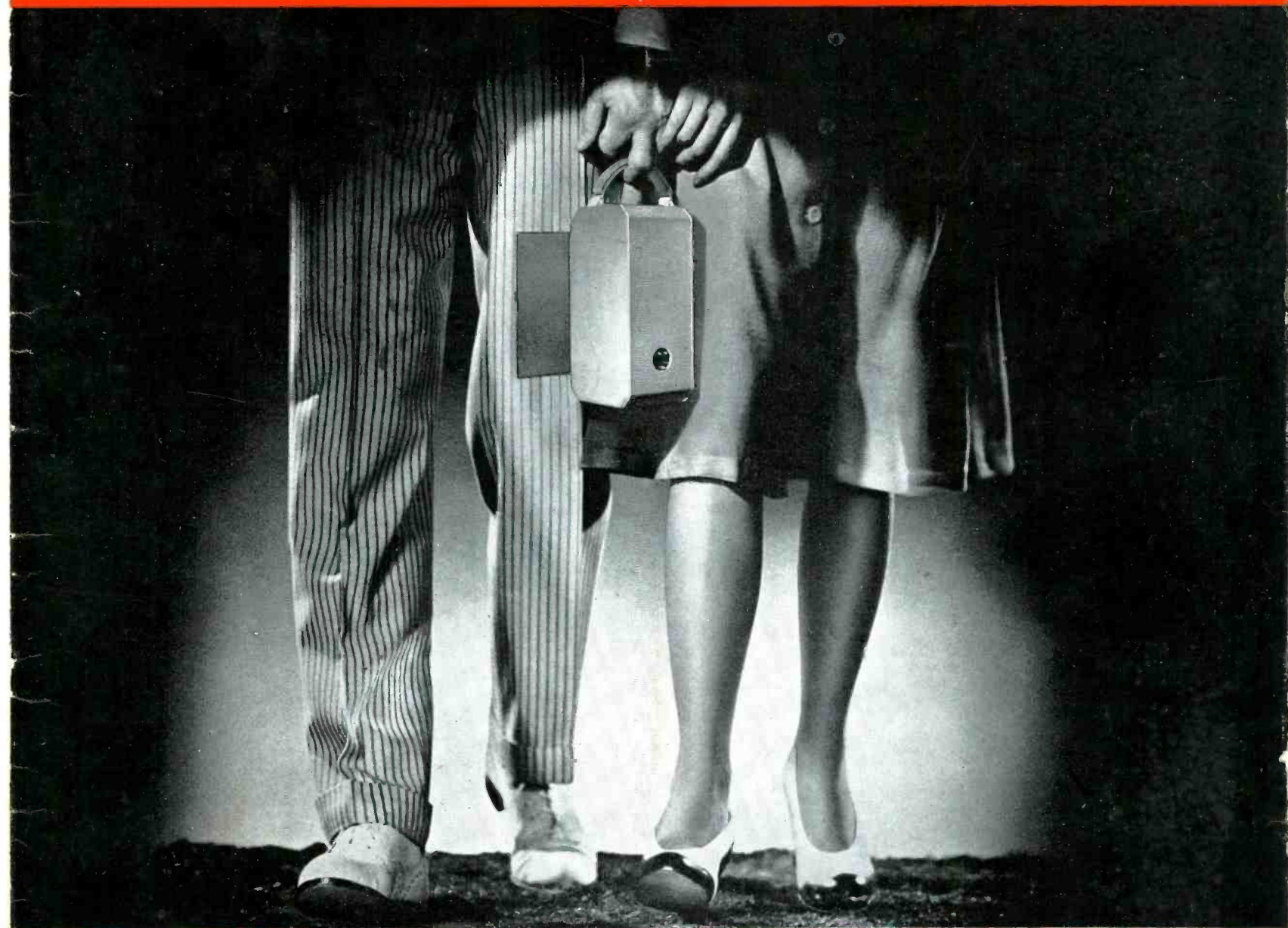
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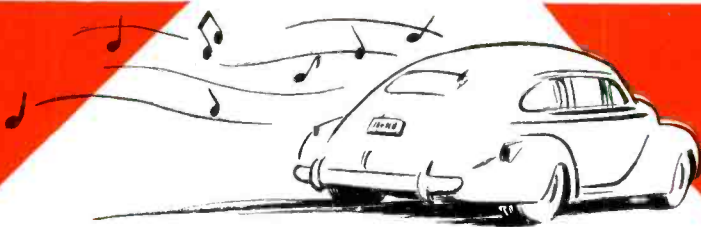
DUP
MAY

A McGRAW-HILL Publication

1941

Price 20c





*Send Them Away Happy...
and Keep Them Happy...with*

P. R. MALLORY & CO. Inc.
MALLORY VIBRATORS

It's easy to send customers away happy when you have corrected a vibrator failure with the exact Mallory Vibrator required. But the important fact is that the long life and dependable performance of Mallory Vibrators is sure to keep your customer happy . . . and make you his first thought when his home receiver needs service.

Mallory has simplified vibrator replacement to its greatest practical extent. As the makers of vibrators for the great majority of all auto radios, Mallory has standardized vibrator application wherever possible. On the other hand . . . circuits requiring special design have not been ignored. The result is the most practical balance possible between the variety of types and the requirements of exact replacement.

Depend on Mallory for every vibrator replacement in auto radios or battery operated receivers. They cost no more!

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



It's FREE
Only a few copies left. See your distributor now for your 1941 Vibrator Guide.

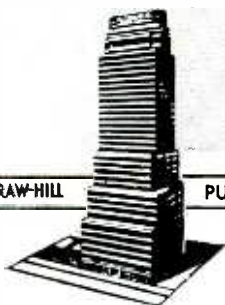
*More than ever
INSIST ON*

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

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

RADIO

and Television RETAILING



A McGRAW-HILL

PUBLICATION

MAY 1941

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SALES STATIC . . . But all I did was drop it!

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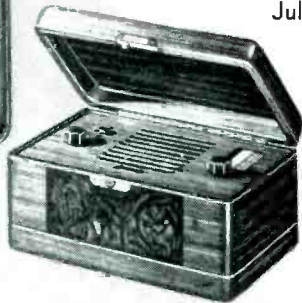
**THE SENSATIONAL
NEW 3-WAY
"CANDIDS"!**

SONORA—first to introduce the original Personal Portable—is first again with the 3-Way "CANDID"! Works from self-contained batteries and from AC or DC outlet as well.

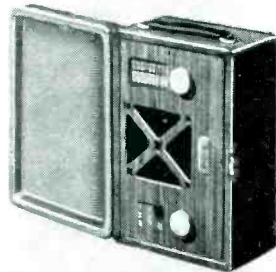
MODEL LP-161. Streamlined plastic-molded two-tone model; body is luxurious deep-grey color; lid is warm taupe-grey. 5 Tube Superhet circuit; built-in "Sonorascope" loop; 535-1650 KC; PM Dynamic Speaker; AVC; Slide-Rule Dial; "off-AC-DC-Battery" indicator; concealed AC-DC cord. 8 1/8" x 5 1/4" x 4".

**Sonora SHOWS YOU HOW TO HAVE
Christmas in July!**

Yes—here's Christmas in July! SONORA sets the pace for Summer Sales with nine new "Best Sellers"—each with the kind of timely sales-appeal you want right now. Look them over—where have you ever seen Radio that's so easy to sell—that's so smart, so sure-fire for your summer business? Yes—you can have Christmas volume, Christmas profits in July—with SONORA!



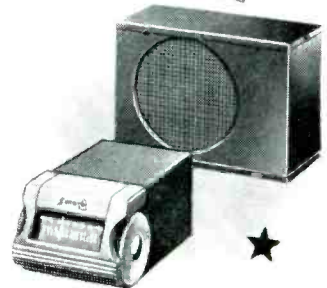
MODEL LP-162. The "Jewel Box" version of the 3-Way "CANDID"—in solid walnut with beautiful inlay trims. New—different!



MODEL LP-163. The 3-Way "CANDID" in a deluxe Custom case of genuine top-grain cowhide leather in rich Florida-tan finish. Smart-looking—a Best Seller!

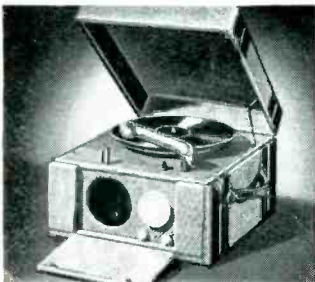
**THE "STREAMLINER"
NEW DUAL-UNIT
CUSTOM AUTO SET!**

MODEL LU-170. Lowest-priced Custom installation Auto Radio on the market! Separate speaker unit (with audio circuit combined) mounts behind instrument panel speaker grille. Streamlined tuning control fits on dash edge. 5 Tubes; Superhet circuit; 535-1650 KC; AVC; Slide-Rule Tuning Dial with taupe-grey plastic face; Electro-Dynamic Speaker; 6 Mv. sensitivity. A Custom Auto Radio at a price that's right!



**NEW PORTABLE PHONO-
RADIO-RECORDER**

MODEL LCU-154. 5 Way Entertainment! Makes records over mike; records off-the-air programs; plays phonograph records; tunes radio; makes home broadcasts. 6 Tube Superhet circuit; 535-1720 KC; built-in "Sonorascope" loop; Airplane Dial; Electro-Dynamic Speaker; 3 watts output; AVC; heavy-duty motor; 1 oz. Crystal playback pickup with lifetime needle; magnetic recording head. Beautiful luggage-type case. 17 1/8" x 15 3/8" x 11 5/8".



MODEL KE-151. 5 Tube Portable Phono-Radio. Superhet circuit; tunes 535-1720 KC; "Sonorascope" loop; PM Speaker; AVC; plastic-molded dial; rim-drive phono motor; crystal pickup; in handsome luggage-type carrying case with hinged lid and protective covering for controls. 15" x 12" x 8 1/4". A "Best Seller"!



MODEL KW-152. Portable Electric Phonograph. Includes SONORA-designed quality 2-tube amplifier; PM Speaker; rim-drive phono motor; crystal pickup. Plays 10" and 12" records with lid closed. Housed in brown luggage-cloth-covered portable case. 13" x 14 1/2" x 8". Has "Clear as a Bell" tone quality.



MODEL KBU-168. 5 Tube 3-Way Portable. Plays on batteries or AC-DC. 535-1720 KC; built-in "Sonorascope" loop; PM Speaker; AVC; big "Speedometer" dial; "on-off-battery, AC-DC" indicator; brown striped airplane luggage portable carrying case with hinged protective lid. 14" x 9 1/2" x 6 1/4". For "Christmas in July" sales.



MODEL LR-147. 5 Tube 3-Way Portable. Plays on batteries or AC-DC. 535-1720 KC; built-in "Sonorascope" loop; PM Speaker; AVC; Slide-Rule Dial; "on-off-battery, AC-DC" indicator; handsome new dual-grille effect; smart open-face brown luggage-cloth carrying case. 14" x 9 1/2" x 6". A great Summer Seller!

Write for descriptive literature covering SONORA'S Summer Sellers

SONORA RADIO & TELEVISION CORP.

2626 WASHINGTON BLVD.
CHICAGO, ILLINOIS

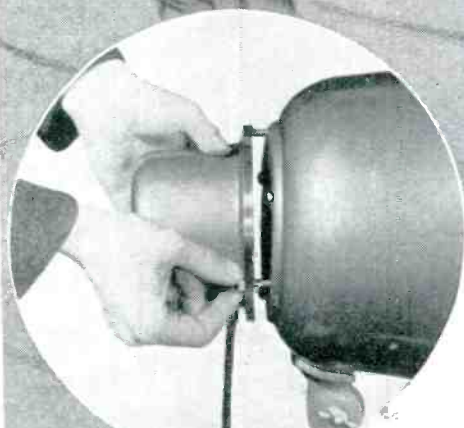


Not 1919
"Exponential"...

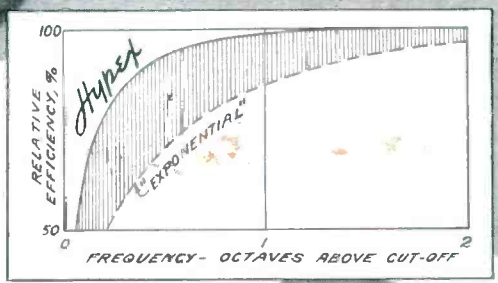
It's 1941

Jensen
Hyperex

The New HIGHER EFFICIENCY PROJECTORS..



Jensen HYPEX (patents pending) brings you markedly higher efficiency because horn impedance acoustically matches driver better than older "exponential" formula.



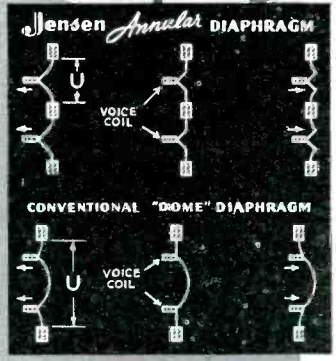
No awkward twisting to install U 20 Driver Unit! Slips easily into place... rigidly held to bulkhead with three nuts.

JENSEN LEADS AGAIN WITH 2 GREAT SOUND CONTRIBUTIONS

Discarding 22-year-old "exponential" horn theory, Jensen Research discovered a new, better HYPEX¹ horn formula which gives improved projector performance. Then a new general-purpose ANNULAR² Driver Unit was designed with the exclusive annular principle long used by Jensen in the highest quality reproducing systems. Extra design features were incorporated for enhanced utility and dependability.

Either development alone would have made sound history. In combination in the new Type "UH" HYPEX Projectors, they logically become a preferred choice for high-efficiency voice and music reproduction in public-address, paging, mobile systems and all similar applications. Two Projector sizes (20" and 24" bell diameter) are now available, both Reflexed for compactness and weather exclusion, rated at 15-25 watts. List prices range from \$56.50 to \$64.50 in Field Coil and PM designs. (Complete Projector, less separately available adjustable stand.)

Write for Data Sheet 123—it gives complete details.



Exclusive Jensen ANNULAR Diaphragm, supported at center as well as at periphery, is free from "break-up," smoother in response, more rugged mechanically. Note extremely short unsupported length "U" compared with conventional dome diaphragm.



Weatherproof ANNULAR Driver Unit enclosed in sturdy 1/4" steel case... husky out-of-the-weather screw terminals... screen-protected, dustproof sound chamber—to mention only a few of the designed-in improvements for more dependable service.

1. Patents Pending. 2. U.S. Pat. 1,845,768. Others Pend.

Jensen
 6601 SOUTH LARAMIE AVENUE, CHICAGO

Ready FOR SELLING Now!

7

Sparkling NEW 1942

NORGE
ELECTRIC RANGES



MODEL E-450



MODEL E-350



MODEL E-300

Here's the electric range that's a full season ahead . . . the new Norge for '42 . . . advanced in its gorgeous new styling . . . advanced in its 6-speed top surface cookery . . . advanced in its balanced-heat oven, with beautiful light gray speckled porcelain oven liner . . . advanced in its high-speed, waist-high broiling . . . advanced in all the other features that have made the name Norge one of the best known in the electric appliance field. Seven stunning models, with basic list prices starting at \$99.95 . . . each with a profit margin that will make money for you now. See your Norge Distributor now or write, wire or 'phone for the complete details.

Sell
THE RANGE THAT'S A Season Ahead NORGE!

NORGE
ELECTRIC RANGES

NORGE DIVISION BORG-WARNER CORPORATION, DETROIT, MICHIGAN



A FAMILY OF PRODUCTS—FOR YEAR 'ROUND PROFITS

See NORGE BEFORE YOU BUY!

U. S. GEODETIC SURVEY

USES **RAYTHEON** TUBES

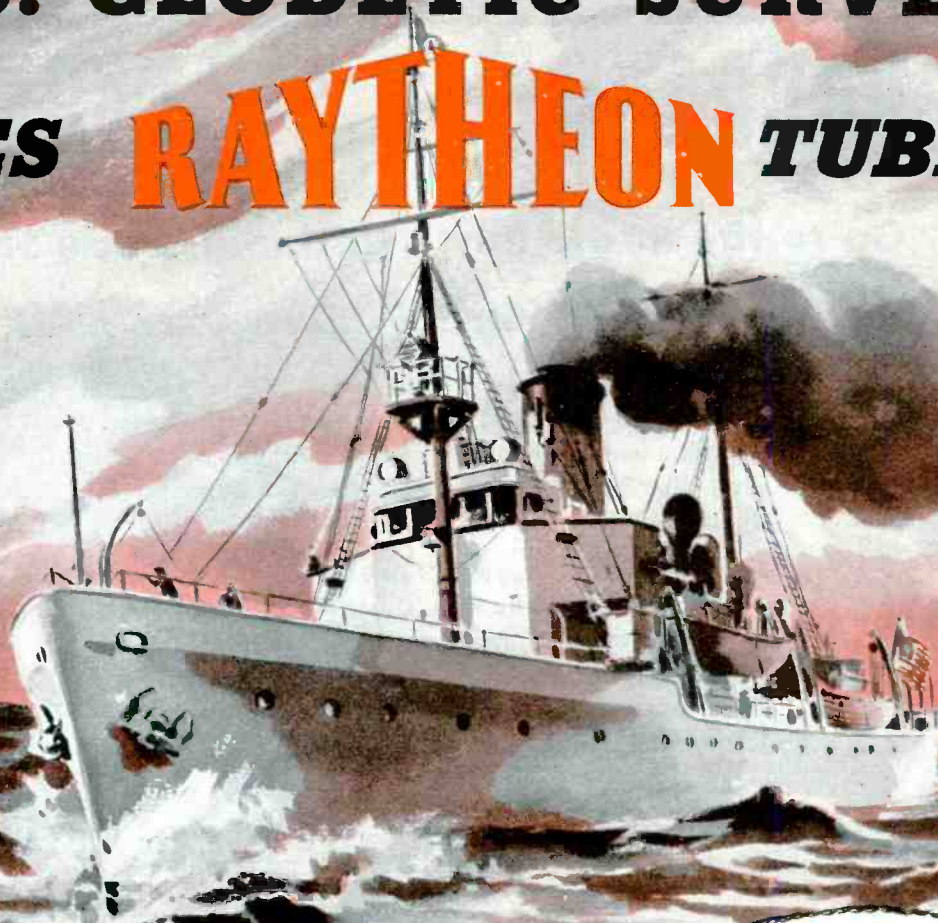


Chart making by the United States Geodetic Survey is an exciting job! Sono-Radio-Buoys have been devised to obtain the Survey Ship's position when working beyond the sight of land. The buoys, containing radio transmitting apparatus, are anchored at specific positions—sound transmitted through the water at intervals reaches the buoys and is picked up by a submerged magnetophone—the amplified sound keys the transmitter—and the signal picked up by the ship is used to determine the distance from the ship to the buoy.

Tubes in the wave-tossed buoys must function at top efficiency at all times for absolute accuracy is required... that is why you will find RAYTHEON tubes on the job... just as you will find RAYTHEONS constantly doing a top notch job for servicemen and dealers everywhere in their replacement problems.

The most successful servicemen and dealers realize the advantage of RAYTHEON replacement tubes to protect their profits, turnover and the good will they have built up in their communities. With all their plus advantages, RAYTHEONS cost no more!

Insist on RAYTHEONS for your next tube order.

JUNE TRADE SHOW · BOOTH 617



RAYTHEON
MAKES THEM ALL

NEWTON, MASS. NEW YORK CHICAGO
SAN FRANCISCO ATLANTA

WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS

PREPARE FOR BUSINESS!

Go to the Radio Parts National Trade Show

Stevens Hotel, Chicago • June 10-11-12-13

Business as *Un-Usual* . . . It's the order of the day . . .
Business based, not on the usual methods of demand
and distribution, but predicated on demand and
distribution, **PLUS** supply and production . . .

At the Trade Show, you'll rub elbows with thousands
of others in the Radio Parts Business . . . Suppliers, de-
signers, producers, merchandisers, distributors, from
every part of the country . . . from Canada and all the
Americas . . . all fired with enthusiasm and the will
to meet the day's problems squarely . . .

Come to the Show . . . It's timed so you can leave
your business. Soak up the zeal and the pep and
the ideas . . . It's a tonic that has no equal.

JOBBER DAYS

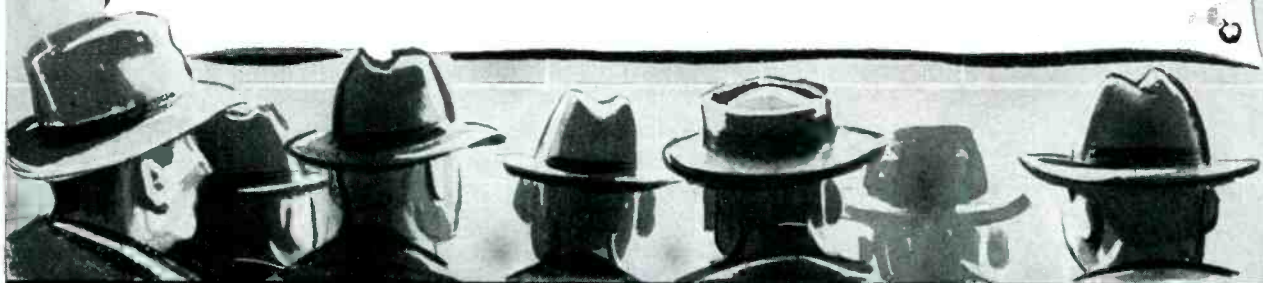
start at 2:00 p. m. Tuesday, June 10 and run to 6:00 p. m.
Thursday, June 12.

RSA SPECIAL PERIOD

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

OPEN HOUSE

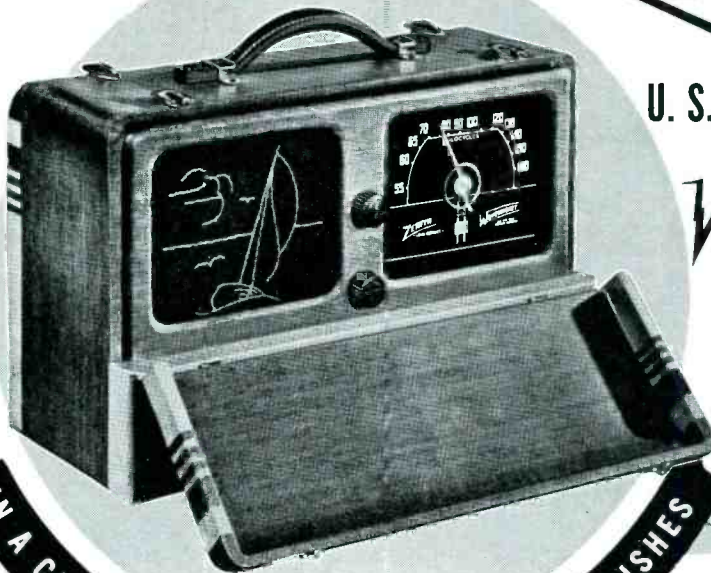
Friday, June 13, 11:00 a. m. to 8:00 p. m.



Radio Parts National Trade Show

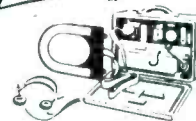
Sponsored by Radio Manufacturers Association and Sales Managers Club
Executive Office • 53 WEST JACKSON BOULEVARD • CHICAGO

ONLY ZENITH HAS THIS!



U. S. Patent No. 2164251
BUILT-IN MOVABLE

WAVEMAGNET
REG. U. S. PAT. OFF.



FOR RECEPTION IN TRAINS,
PLANES, AUTOS, BOATS, ETC.

IN A CHOICE OF FIVE MODERN LUGGAGE FINISHES



THE ONLY
PORTABLE RADIO
GUARANTEED TO
PLAY WHERE OTHER
PORTABLES FAIL
...OR YOUR
MONEY BACK!

OPERATES THREE WAYS—
BATTERY or AC or DC

1942

ZENITH
REG. U. S. PAT. OFF.

UNIVERSAL PORTABLE

THE RADIO THAT KNOWS NO SEASON

America's fastest and biggest selling portable! . . . The radio that knows no season! . . . Week after week, month after month, year after year, the Zenith Universal rolls up new non-stop selling records. Superb new 1942 stylings now available in five luxurious luggage finishes. 1. Brown airplane fabric. 2. Blue-gray airplane fabric. 3. Brown and Ivory two-tone. 4. Rich, simulated alligator. 5. Genuine, top grain cowhide.* Now you have finishes to suit every taste. No lost sales.

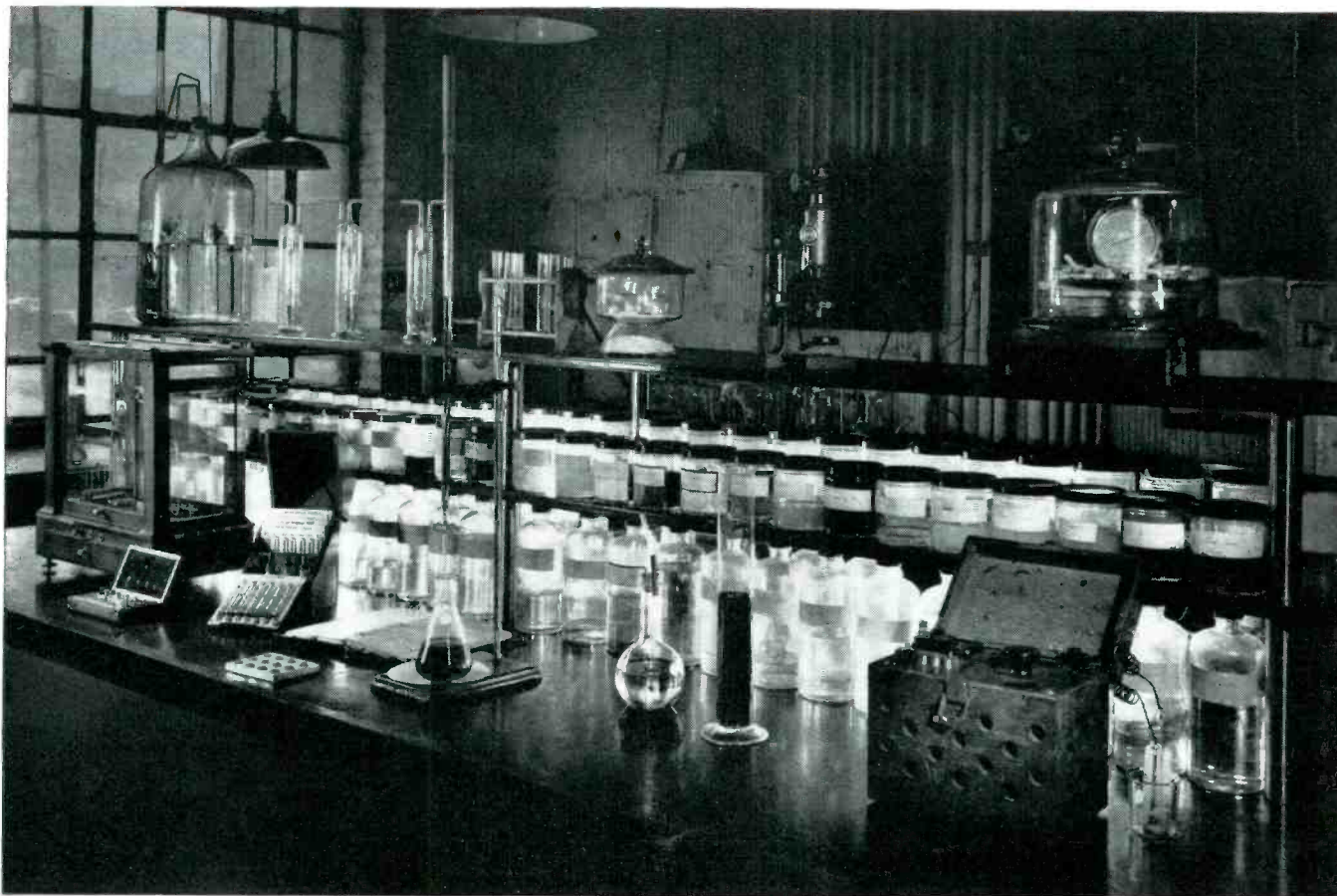
POWERFULLY SUPPORTED BY A STRONG YEAR 'ROUND NATIONAL ADVERTISING CAMPAIGN . . . WATCH FOR THE BIG COLOR PAGE

Every week, every month the whole year 'round, big, strong, makes-'em-want-to-buy advertisements appear in leading magazines all over the country. Be prepared with stock for the special Full Page Advertisement in Color in the June 21st issue of The Saturday Evening Post — just before the big July Fourth holiday.

*Slightly higher in price.

Write, Wire or Phone Your Zenith Distributor Today!

MADE BY AMERICA'S OLDEST MANUFACTURER OF FINE HOME RADIOS



SOUND IMPROVEMENTS

are coming out of these bottles . . .

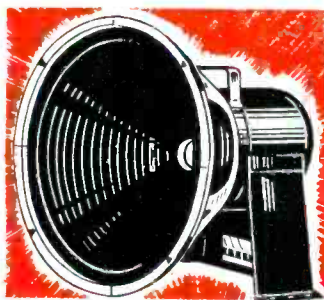
● Important things are happening in the Utah laboratories these days. In the chemical laboratory alone, new metals and alloys, new coating and impregnating solutions, new insulating and conducting materials are being tested and developed. These and the achievements of the other Utah laboratories and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

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

At Utah, every effort will be made to

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

Utah Speakers give you the benefits of the constant laboratory testing and research which result in sound improvement. In the complete Utah line there is a speaker to meet every requirement. If you do not have the 1941 Utah catalog, write for your free copy today. There is no obligation. Utah Radio Products Company, 810 Orleans Street, Chicago, Illinois. Canadian Office: 560 King Street, West, Toronto. In Argentine: Ucoa Radio Products Co., SRL Buenos Aires. Cable Address: Utaradio, Chicago.

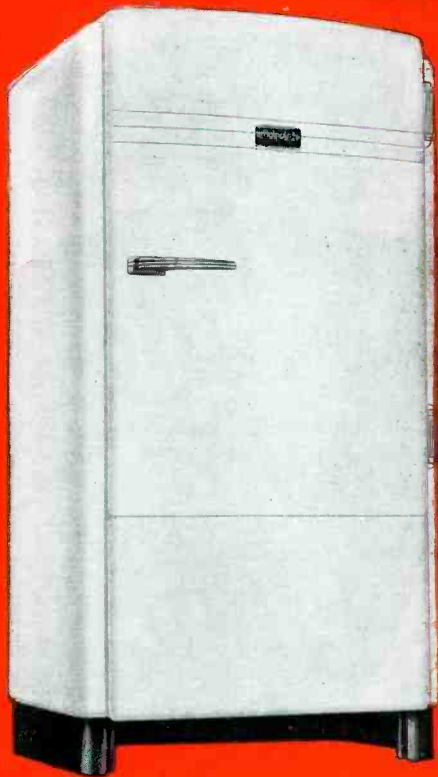


Be sure to stop at Nos. 1016 and 1018 in the Exhibition Hall, or Demonstration Room 505A—National Radio Parts Trade Show, Stevens Hotel, Chicago, June 1941.



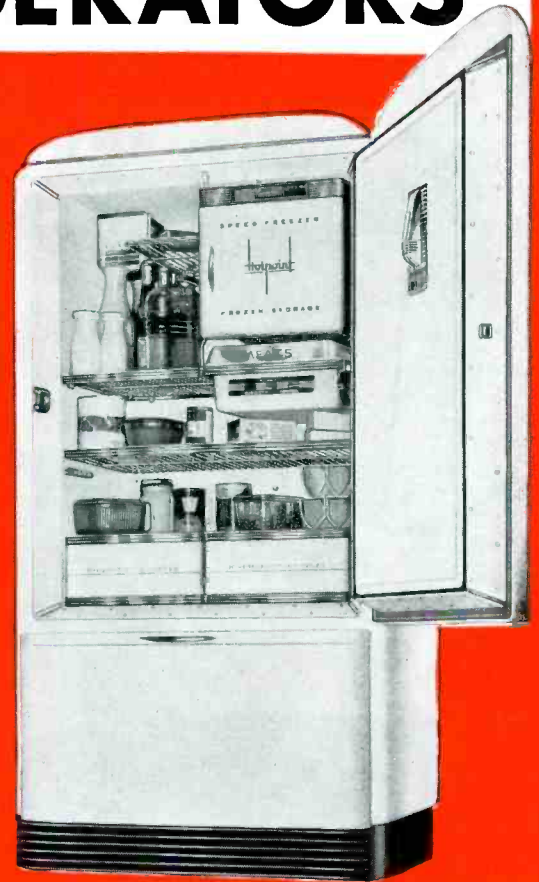
S P E A K E R S
VIBRATORS • TRANSFORMERS • UTAH-CARTER PARTS

MORE *Plus* FEATURES WITH HOTPOINT REFRIGERATORS



DORIC DE LUXE, the big new →
Hotpoint 7 cu. ft. full-family
size refrigerator. \$214⁹⁵*
Prices start at

← SPECIAL NORMAN, Hotpoint
quality construction through-
out, 6 cu. ft. \$119⁹⁵*
Prices start at



* Prices subject to change without notice.

“By Every Yardstick A Great Refrigerator Buy!”

TODAY, the electric refrigerator is an essential part of the American home scene. It is no longer a luxury but a staple piece of equipment for the home, a necessity. The chief differences between various makes of electric refrigerators now lie in their *plus features*—and it is here that Hotpoint's 4 lines of refrigerators shine.

For Hotpoint is able to offer not only big value in merchandise features but a great name in household appliances as well. Hotpoint also offers the buyer such outstanding sales features as the new Butter Conditioner, which keeps butter at spreading consistency, Vacuum-Sealed Thriftmaster Unit, Giant

Bottle Zone, Hi-Humidity Compartments—*plus features* that make dealers say that easy-selling Hotpoint is “by every yardstick, a great refrigerator buy!”

These sales-making features, *plus* powerful promotion helps, aggressive selling plans and nation-wide advertising, are what win customers. Hotpoint's long-lived, trouble-free performance helps you make more money, too, and the new sales record this year places Hotpoint with the first division leaders. See your Hotpoint distributor for full information. Edison General Electric Appliance Co., Inc., 5680 West Taylor Street, Chicago, Illinois.

OBSERVE NATIONAL HOTPOINT REFRIGERATOR WEEK—MAY 19-31

Hotpoint

Electric Refrigerators • Ranges • Water Heaters • Washers and Ironers • Clothes Dryers • Automatic Dishwashers • Electrasink • Steel Kitchen Cabinets

Thoughts at a Glance

“USE Values” is a term that we hear a great deal in the appliance business. Repeated expression of this phrase is a good omen for the retailer, the customer and the manufacturer.

“Use Values” indicate the practical services which a product delivers to the user long after emotional buying urges have been forgotten.

When a manufacturer talks “Use Values” you know that he has considered the needs of users. He has seen beyond the customer's order blank. He has built into his product utility features that make users forever glad they bought it.

When a salesman talks “Use Values” he tells an interesting story in language that the customer understands. He tells a story that never grows old. A story that never loses its thrill, because each year there are new millions of people eager to hear it.

Over a million new families are launched each year. Most of them are young couples to whom the purchase of household appliances is an exciting new experience. To them the “Use Value” story is as absorbing as a best-selling novel; as important as a vote for president.

For 35 years the people at Hotpoint have been guided by this simple truth: “Use Values” are salable customer benefits. This has been and will continue to be our policy: “Use Values” must be the first consideration in the design and production of all our appliance lines.

W. J. Sarnally
Vice President

WENDY BARRIE
 too, enjoys the new
WESTINGHOUSE
"Carryette"



Featuring the exclusive Westinghouse "Stratoscope" antenna which gives clear reception at remote spots, a Westinghouse "Carryette" brings more programs better to all outdoors . . . beach parties . . . camping, fishing . . . boat trips . . . vacation tours, or home or office. Orders for these sets are breaking records. Cash in now!

PHONE OR WRITE YOUR NEAREST
 WESTINGHOUSE DISTRIBUTOR

WENDY BARRIE
RKO RADIO-PICTURE STAR

is shown with Westinghouse "Carryette" WR62K2. Operates on AC, DC or batteries. Brown pigskin leatherette makes it a truly handsome portable.



WESTINGHOUSE
"Carryette"

The smartly styled WR62K1 operates on AC, DC or batteries. "Stratoscope" antenna gives clear programs at remote spots.

Westinghouse *Precision* **RADIO**

Delayed **INHERITANCE**

MANNA FROM HEAVEN to most of the nation's radio dealers is the continuing shower of phonograph record business. Retailers reluctant to rely upon miracles search beneath the surface of this apparent gift from the merchandising gods for some scientific explanation.

Actually, disc business was far from static when radio came along. The new service, because of its novelty and convenience, nipped sales in the bud. Yet all through these intervening years it has been obvious to at least a few music lovers that pressings provide a supplementary form of home entertainment unique in that selection is completely within the control of the listener.

The need for records never completely died. Demand was sidetracked.

THE REAL MIRACLE is that records should stage such a strong comeback just now, in the interim period between near stagnation of the console radio market and introduction of revitalizing new services.

Promotion of inexpensive record playing attachments and compact combinations started the ball rolling again. Development of cheaper automatic record changers furnished further impetus. Broadcasting's preoccupation with a volume rather than a quality market might be partially responsible and the ASCAP-BMI wrangle undoubtedly brought things to a head even among the jitterbugs. Coin operated machine promotion probably provided a further fillip.

Be the reasons what they may, it is certain that most large radios and not a few smaller ones in homes today will be replaced with combinations tomorrow. A very timely dispensation from providence, indeed, for all of us.

RECORD SALES VOLUME is just what the high priests might have ordered.

Store traffic. Repeat orders. Needle, album and storage cabinet extras. Bigger unit sales. Greater interest in quality of reproduction. Stimulated consumer demand for good furniture design. Convincing combination mechanisms with which to speed replacement.

To our already considerable radio trade has now been added the phonograph business, mightier in its resurrection than at birth. Two major home entertainment services combined in a single instrument and flowing through the same distribution channels.

One might almost term this trend a "delayed inheritance."

Make the most of this miracle, if such it is.

W Mac Donald

Editor



SPRING IN ENGLAND

A British Tommy and his girl find simple pleasure in a park plus a personal portable radio, much as many Americans do over here now that the grass is green again

BELIEVES IN SIGNS

Subtle sales propoganda is this sign seen in a service shop, reading: "Our 5-Foot Shelf . . . These books contain the knowledge your service man should have to satisfactorily repair your radio"



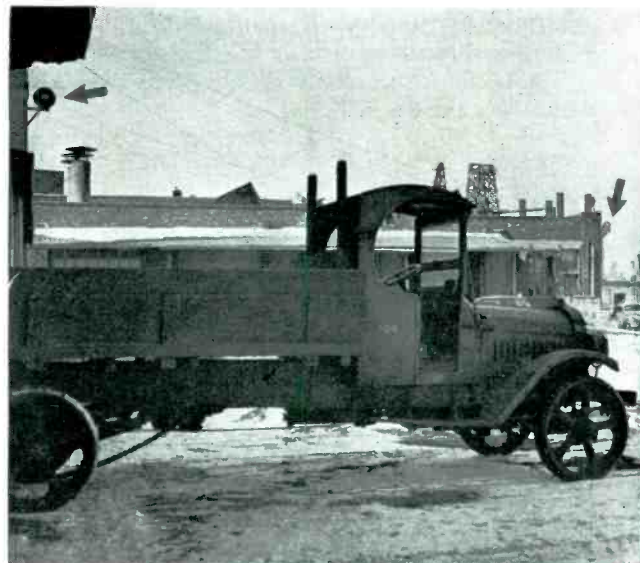
PHOTO *Shorts*

Pictures *from the News*
to help you **SELL**



FIND THE TEACHER

Cleveland, experimenting with broadcast lessons to regular classes as early as 1925, is the first city to apply for an FM educational station license and one of the first three (others are in San Francisco and Beattyville, Ky.) to take the air using the new system. Pictured in a Stromberg-Carlson equipped classroom are students supplementing sound instruction with visual charts



OIL FOR THE LAMPS OF BROOKLYN

Beneath the truck and close to Newtown Creek delivery barges are this fuel distributing firm's underground storage tanks. From the window of the background building 275 feet away a dispatcher tells drivers how many drums to load, via the Atlas speaker arrowed at the upper left. Three more, sold by New York's Windsor Radio and Sound Service, cover the rest of the yard



COUGH-BUTTON

For commentators like Raymond Gram Swing WOR engineers have rigged up a switch beneath the mike. When a throat-tickle threatens to explode, the speaker himself momentarily cuts pickup



OLDEST LISTENER?

Confirmed radio fan Ed Butler of Paducah, Kentucky (92) is one of the few men living who knew Mark Twain, saw the Robert E. Lee Natchez race. He steamboated on the Mississippi nigh sixty years



NEW USE FOR OLD JOKE

Salesman Wayne Donovan of St. Petersburg's Keesler Electric does this to demonstrate Hotpoint box capacity, sends photos of the act to prospects bearing the message: "Now close the door and I'll see if the light goes out!"

USHERS AT EASE

LeMoine of Denver loans new radios every year to the city's six largest theatres, hooks them up in employee rest-rooms after affixing a tag bearing the firm's name and address. Says this is good publicity and promotion, reporting sale of two portables and a \$139.50 model to the boys of one house



Service

LONG HOURS, minimum incomes and suffering reputations have led many servicemen to adopt unorthodox methods of bettering their positions in the business.

Radio Retailing neither lauds nor condemns such schemes. It merely prints the details of one in the following paragraphs to dramatically drive home the fact that one thing this business sadly needs is some practical method of pricing repairs that will be at once equitable to repairmen and consumer.

WHEN A GUY buys a radio he expects it to return dividends in entertainment. It does, but sooner or later breaks down and quits.

Ninety per cent of the time the part needed to make it play costs less than fifty cents. To just make it play, I said. Sure, maybe it should have twelve dollars worth of stuff to make it play better, but that's another story.

You get the set in and give him an honest estimate of, say, \$3.75. He don't like to give it to the first guy he meets so he picks it up and says he'll let you know and out he goes. Right into the shop in the next block or the next town.

This next serviceman has no idea what you quoted, if he even suspects you had it, so maybe he says

MEN Who Make No MONEY

THE AVERAGE independent radio repairman makes \$23.85 weekly*, labors 10 to 12 hours a day

**Invested In Business . . . \$1345
Annual Gross Volume . . \$4323
Tube and Parts Cost . . . \$1733
Annual Overhead Expense \$1350
Annual Net Income . . . \$1240**

* Survey by P.R.S.M.A., Philadelphia

ESTIMATING

QUOTE a man a fair price for work his radio really needs and let him get a lower figure from some guy cutting all the corners and you are a "robber"

By A RADIO REPAIRMAN

who thinks it's about time somebody let their hair down . . .

\$2.50. You are now a *robber* to the shopper. If he shopped a hundred shops he could probably draw a price curve from 60 cents to ten dollars. Or more. You would then be a *bunch* of bandits.

The Real Trouble

What are we gonna do to keep this price range from spreading so far? We know that we gotta take in two dollars an hour, rain or shine, 'cause somebody that took arithmetic in a fancy school figured that out a long time ago. We also know that at that rate we make \$25.00 to \$30.00 a week.

Is that money?

Maybe we took an extreme case as a sample. Alright, let's take another.

Take the nice man that doesn't shop around the county. He says "fix it" after you quote. After puttin' in the new part you try it and let it play on the bench a few minutes. Maybe it has a little hum, a noisy tube, control or something. Or all these. If you believe in the golden rule you put in that little extra part or effort to make it work just right. Probably you won't even tell him that it got a little extra, 'cause he won't understand anyway.

Now you are happy and you got a happy customer.

But maybe he ain't got the money to spend this week so he don't actually leave the job. He says he'll bring it back next week, and means it. If he's human he talks to his

friends meantime and soon some yap persuades him to bring it over to some guy on the other side of town.

If this guy is psychic he quotes the same as you did but he ain't, so his price and yours just won't jell. If he's over your quote you get the job, if he's under, he gets it. In either case the nice man gets a funny feelin' in the region of his pocketbook and realizes somepn's screwy about the radio business besides the retail list prices.

And *they* don't need any help bein' unconventional.

How are we gonna keep 50,000 or more full-time, part-time or any-time servicemen in line with prices on repair work? By "in line", I don't mean exactly on the dot. If we could keep 'em within ten per cent even we would be a whole lot more uniform than now.

Wrong Way Out

In the past some guys have tried to take matters in their own hands to make sure that the next servicicer's quote would be somewhere near theirs. If they had the opportunity, before the customer got the setback, coils opened and condensers punctured, all very mysteriously. When the next guy got it, the set actually needed the amount of the first estimate in parts alone.

Other fellers fixed an obvious part in such a way that the next man would see that it had been

Is No CINCH



changed materially and thereby conclude that someone else had already had it in for an estimate.

Certain servicemen even went one better (or worse) and removed mica from a trimmer or turns from a coil to make the second man take longer to check and therefore quote higher.

Most of these guys call this practice "goosing" the set and boy I've seen some perfect pippins. Complete sets of burned-out tubes, pinpricked by passes and filters, missing parts and even elaborately changed circuits are only a few of the high-lights that bounce on my bench.

Some of these "geese" are pretty mean on the next poor serviceman 'cause his parts bill will come to more than the radio cost, and he can't even make a buck fixin' them.

A Better Way

I got a plan that me and some of the local boys that are on speaking terms have been usin' for some time fairly well. We take the near-

est figure in dollars of our estimates and scratch the back of the main chassis with the letter of the alphabet that corresponds to it. Thusly, K means \$11.00 and Z means \$26.00.

So far we haven't had no trouble beyond Z.

When we get a marked chassis we know what another estimate was from this. Armed with the other guy's quote, we can hit around the same figure and not arouse the customer's ire by a shot in the dark that misses even the whole barn. In most every case we've found the second estimate gets the job so if a chassis has two *separate* scratches.

Of course, you're gonna argue that the second man can still hit bottom with his quotation. Sure, but now he knows he's takin' it right out of his own pocket. Only purely philanthropic bolsheviks would do that and I ain't met any of those in this business. Yet.

Some of the gang report that they successfully boost their quote over the one marked. They repeat

the first one with an explanation that it includes only the most necessary repairs and that a few other parts, etc., are weak and could be better replaced *now* rather than a few months from now. And they're right, too.

Most of us ain't such high pressure salesmen, tho, and we pop a price pretty near the one indicated. *The psychological effect of two estimates, at practically the same price from two different radio ex-*

CONSUMER CONFIDENCE is naturally ruined when by shopping a man can draw a radio repair estimate curve ranging all the way from 60 cents to 10 dollars

parts, is the real salesman for us guys who ain't natural born salesmen.

I hope you don't need to, but try shoppin' around with your next prescription to the local drug stores. 'Sfunny how three cents worth of chemical and water comes to 85 or 90 cents in all of them. Maybe if you get under the skin of one of them pill-pushers he might let you in on it.

Maybe Not The Best

Maybe you're gonna tell me this plan ain't ethical. Alright, what business *is*? Judging by the customers' attitude, any business that pays a profit ain't ethical. And us servicemen don't even make enough to cover our labor, much less show a profit above it.

If we tell them we charge two dollars an hour they figure our personal income is over \$100 a week and you know it ain't usually but 25% of that. That's why most of us give flat-rate prices in our estimates.

Maybe some of the gang have got better ideas than this scheme so would you mind passin' 'em on if you come across some? I been tryin' fer years to make this radio repair business a regular business like any other but it's a lotta work.

Sometimes I think the farmers have the right definition of the word "service". Whenever I hear it now I know somebody's gettin' it.

And too often in the past it's been the *serviceman*.



OFF TO A LATE START last season, "personal" radio sales scarcely hit their stride before the race was over. This year, dealers have a better chance for win, place and show money

By VIN ZELUFF

PAST PERFORMANCE of the diminutive radio receivers that can be "walked and talked" indicates that the sales purse will be filled this summer if warming-up workouts are started now.

Starters entered for this season have all the elements that appeal to the customer grandstand. A variety of cabinet styles and finishes have eye appeal. Sets operate most efficiently and supply that dramatic surprise element when operated which, in the last analysis, gets a buying wave started.

Appearance Fascinates

Customer reaction to the volume and sensitivity of personal receivers has been noted by many stores and not a few dealers have built up promotion for the tiny models by sending a girl into crowded streets and public places to show and demonstrate the tiny mites.

Try a stroll through your neigh-

borhood with a personal portable and test the interest of your community. Since the receivers operate under practically all conditions many variations of this method of promotion may be used by enterprising dealers.

All forms of promotion must, however, lead prospects to your store if maximum sales are to result.

Continuous Appeal

One way to attract store traffic is to keep personal models in the window for the greater part of the season. Monotony can be avoided if the background and mechanical makeup of the display is changed frequently.

A very effective display can be achieved by suggesting uses, or users, of personal portables. This might consist of one or two models placed in the window with a few implements of camping equipment. Weekly changes can consist of golf

Parlay

clubs or other paraphernalia used during the summer months. Such changes give an entirely new appearance to a window yet present the story of another use for the receiver.

Displays of this type may be changed almost indefinitely to interest the best prospects, outdoor enthusiasts of all kinds.

Everyone a Prospect

In considering possible prospects it will be well to keep in mind that all sports fans can use personal portables. Some baseball fans take portables to the ball parks to hear the results of other games while they watch one.

Hikers and campers can keep in touch with the world and its affairs with a portable and also receive entertainment during the lazy evening hours.

Bicycle and motorcycle travelers are still with us and the small size of the new models fill their peculiar needs to a "T."

Friends and relatives of men in army camps can be contacted and many portables will be sold for use as gifts to service men.

Some new models incorporate provision for operation on ac and dc power lines and this adds an attractive selling feature.

Promoted now and whipped up in the stretch, personal portable receivers can pad purses for many dealers patiently waiting at the wire for extra profits.

Don't MISS THE GUN

PEOPLE ARE PLANNING their vacations right now. Profitable summer sales depend largely upon the effectiveness of early tie-in with radio display and advertising

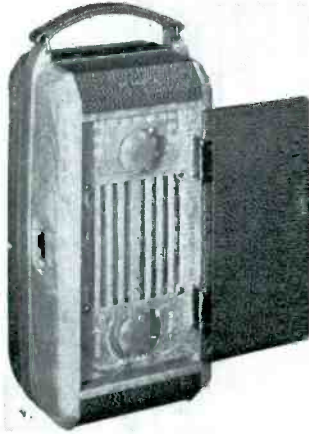
PORTABLE *Promotion*

New 3-WAY Models

They operate from power lines as well as on batteries



SONORA



Candid

DETROLA

378



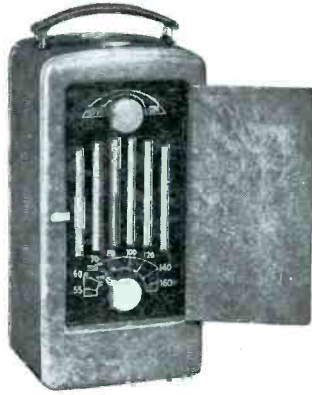
SENTINEL

247-P



MOTOROLA

3A5



DEWALD

564



GAROD

BP-20

ADMIRAL

28-G-5

FARNSWORTH

CT-59

FADA

C-34



681

AUTO-

By MARTIN FRANCIS

GIVE MOTORISTS ACTION on installations and repairs or they'll seek it at filling stations selling sets on the side

WITH THIS salubrious spring weather staring you right in the eye on one of your few days off how would you like to have some dumb mechanic tie up your car for a couple of days while he monkeyed with the radio? You wouldn't? Well, neither does your neighbor.

Spoiled, that's what motorists are. Accustomed to dashing up before a filling station, getting a flock of little things done in a hurry while they wait and dashing right away again, they are apt to demand the same sort of service from car radio dealers and have little patience with excuses, regardless of how legitimate these may be.

That's why speed is necessary in the business, particularly at this season. And you can't have speed without an efficient layout.

Place to Park

Milt and Harold Kidder of Madison, Wisconsin fitted out a building just about a year and a half ago sufficiently efficient to be worth crowing about all over the State. Much of their work is auto-radio installation and service for other dealers, with a good deal of home radio repairing thrown in, but they also turn out a substantial number of jobs on their own for local listeners and sell home sets.

Part of the speed with which, the Kidders handle work may be attributed to the fact that down one side of their 125-ft. building runs a long driveway in which customers may park cars, off the street. More than half of this driveway is covered over with a shed, for squeamish people who hate to see their jalopies

TEN TYPICAL URBAN FAMILIES



NUMBER HAVING



CITY Survey

MOST RADIOS are found in cities. The more we know about (a) urban receiver ownership, (b) urban customer types and (c) the listening habits of these urbanites, the easier it is to intelligently promote sales in such centers.

Latest facts about the 20,000,000 families living in American cities were developed by Crossley, Inc. for the NAB, in cooperation with CBS and NBC. (Rural radio statistics were compiled in February '39 by the Joint Committee for Radio Research.) Forty-thousand personal interviews were made by this organization in 1938, 25,000 more in 1939 and January '41. Interesting new figures were obtained. Pertinent ones from "Urban Radio Listening in the US" are highlighted here:

URBAN OWNERSHIP—90.9 per cent of all families living in cities now own one or more radio sets, says Crossley. And 98.5 per cent of these have sets in working order.

29.2 per cent of all urban families owning radio have two or more sets. 19.6 per cent own automobile sets.

Geographically, the highest degree of ownership is on the Pacific Coast (96.8 per cent of all families have radio, 38.9 two sets or more) and in the larger cities (93.2 per cent of all families in cities over 250,000 have sets, 33.3 per cent two or more).

Car radio ownership is greatest (26.8 per cent of all families with radio) in the western Mountain area, and in medium-size cities (figures show 21 per cent in cities

with 25,000 to 350,000 people).

CUSTOMER TYPES—With nearly 7,000,000 people in each of the three income groups, home type radio ownership appears to be as follows: High Income Group: 99.5 per cent own radios and 54 per cent of these own two or more. Middle: 97.2 per cent own home radios and 21.8 per cent two or more. Low: 76.1 per cent own home radios and 6.3 per cent two or more.

Auto-radio ownership by "radio families" is said to be 35.9 per cent among high-income groups, 14.9 per cent in the middle-income classification and 4.4 per cent in the low.

LISTENING HABITS—The average urban family now listens about 4 hours, 17 minutes per day (3.2 per cent more than in 1937).

Listening sometime daily are 83 per cent of all radio-equipped urbanites in the high income group, 84.6 per cent of those in the middle and 83.4 per cent of those in the low. Classifying by size of city, listening sometime daily are 80 per cent of all radio-equipped people in cities over 250,000, 86.2 per cent of those in cities between 25,000 and 250,000 and 86.7 per cent in cities between 2,500 and 25,000 population.

Seasons make less difference than many suppose. 87.8 per cent of all radio-equipped urbanites listen sometime daily in winter, 86.6 per cent in spring, 77.9 per cent in summer and 82.3 per cent in the fall.

RADIO Customers

Expect SPEED



BENCH ROLLED TO CAR—Clever combination test instrument and parts supply trucks used by Milt and Harold Kidder of Madison, Wisconsin step up service

stand out in the sun and rain. At the far end of the driveway a set of rolling doors admits cars to a completely enclosed room, where most actual work is done. But, in a jam, some of it can be handled outdoors under the shed. And the overall space is rarely so full that prospects are scared away.

Place to Wait

Up in front of the Kidder building is a large combination waiting and display room, decorated in modern style and equipped with simple yet swank bent metal chairs and tables, plus (and this is more important) table and console type home radios in sufficient number to keep customers from becoming bored.

You can see the firm's service benches through the display windows from the street, or from the display room and, take our word for it, these benches are worth seeing for there are 26 in all, the slickest things you can imagine. Why so

many benches? The Kidders say they are one of the secrets of speedy service. Place each radio in for repair on its own individual bench, along with the necessary repair parts, and have servicemen shuttle from bench to bench for efficiency.

Test equipment? Oh yes, this is handled in a particularly novel

OUT OF THE RAIN—Down one side of this 125-ft building is a driveway, half roofed over. Back of it is an enclosed room into which cars are eventually wheeled



manner. All 26 benches are set against the walls but there are little, narrow spaces between them. Into these spaces the firm's seven servicemen can wheel their own individual combination test instrument and parts storage trucks, bringing instruments to the work rather than work to the instruments.

Place to Watch

Five of the shop's benches are off by themselves, back in that portion of the building set aside for auto-radio work (shown in the large photo). This is adjacent to the room into which cars are rolled, already mentioned, and connected to it through a door.

Among other things, the entire service department has acoustically treated walls and ceiling. Quiet, the management thinks, not only increases the efficiency of its technicians but also helps them to do a better repair or installation job. Windows are larger than those found in most shops and situated high in the walls to fully utilize daylight. Customers are welcomed back in the shop as its neatness and obvious efficiency promotes confidence, brings them back with their next job and causes them to recommend the place to friends.

Quite a layout, this. No wonder it is noted for speed.

HOME SETS TOO — Up front, radios other than automotive models are displayed in the modern manner. This space also serves as a waiting room for the Kidder's auto-radio customers



Latest FM NEWS

ON APRIL 11, Frequency Modulation took a significant step forward when the American Network, Inc., announced its inception and the opening of offices in New York City.

This new organization, formed by a group of independent FM station owners, will be headed by Jack Latham, former advertising executive. Latham conducted preliminary research and explored the feasibility of a coast-to-coast FM "web" service. Temporary board of directors for new network includes John Shepard 3rd, Walter J. Damm, Herbert L. Petty, Gordon Gray, Harry Stone, and Jack Latham.

Many New Applicants

FM Broadcasters, Inc., in the meanwhile, revealed that applications filed with the FCC were on the increase. Requests so far filed totaled 103. Construction permits granted to date number 45, which leaves 58 applicants still awaiting Washington action.

During the second week of April, six applicants filed for FM stations. Two of the latest requests came from the far west where Hughes Productions, headed by erstwhile globe-girdler, Howard Hughes, sought authorization for FM stations in both Los Angeles and San Mateo County, California.

When this issue went to press the following 5 stations had commercial call letters, assigned channels and were operating on a regular commercial basis: W47NV, Nashville, Tenn., W71NY, New York City, W51C, Chicago, Ill., W39B, Mt. Washington, N. H., and W55M, Milwaukee, Wis.

Order No. 79

In FM circles, the most seriously discussed subject during the month was the recent Washington order No. 79, which calls for a hearing at an unnamed future date to discuss the large number of FM applications

filed by newspaper publishers. (Reported that this meeting is to take place about fourth week in May.)

This order has apparently stymied, temporarily at least, the commercial careers of about a dozen stations that were virtually set to start operation. All construction permits thus far issued to such newspaper-FM groups have carried the proviso that no construction work may be undertaken until after the hearing. (Among the 58 applications still awaiting Washington action are 16 more newspaper groups.)

An FM industry meeting April 2-3 in New York authorized John Shepard 3rd, president of FMBI, to appear in Washington before the FCC at the time of hearing and present views of the industry on the matter. The view, as reflected by representatives at the meeting was that any effort to discriminate against newspaper activity in FM at this time would be detrimental to the progress of the art.

Radio Committee

Latter part of April, newspaper publishers gathered at New York convention, formed a sub-committee of nine men to coordinate data for FCC hearing. Known as "Newspaper Radio Committee" it will proceed to set up machinery to present the case of the newspaper owned stations, particularly such publishers that have made application for FM outlets. Harold Hough of the Fort Worth *Star Telegram* and stations WBAP and KGKO, was elected chairman.

Newspaper owners of radio stations agreed to raise a \$200,000 fund for expenses in connection with the forthcoming hearing. Some 150 publishers attending the meetings, heard former chairman of the news committee, Mark Ethridge, of "Louisville Courier Journal" and station WHAS describe the results of interviews with Washington officials on the hearing. Ethridge said

that newspaper ownership is only one of the angles involved and pointed to FM network, clear channels, power and related problems.

Studio-Station Links

At the New York meeting other current FM problems were discussed.

Referring to relay or station-to-link classification, Major Armstrong pointed out that the band authorized by the Commission of 330 to 344 megacycles would be quite satisfactory for STL service in perhaps 99% of the cases because under most conditions the studio and transmitter would be within 25 miles of each other and would be within line of sight. He stated there might be a few instances where, due to intervening terrain or other causes, it might be necessary to use a double relay.

Station Activity

This season, baseball fans in New England will be able to hear complete play-by-play FM broadcasts of all Boston big games over WIXOJ and W39B, Yankee Network stations at Paxton, Mass., and Mt. Washington, N. H.

It is reported that FM station W47P, Pittsburgh, has a contract with the Atlantic Refining Company for sponsorship of major and minor league games. This is believed to be FM's first sports commercial.

COMMERCIALS "On The Air"

| | |
|--------------|------------------------------|
| W51C | Chicago, Ill. |
| W55M | Milwaukee, Wis. |
| W39B | Mt. Washington, N. H. |
| W47NV | Nashville, Tenn. |
| W71NY | New York City |

"IT'S TERRIFIC!"

"IT'S A WOW!"

"Swell Idea!"

"Selling like Hot Cakes!"

"SENSATIONAL!"

THE DEALERS SPEAK . . .

about

Special RCA Victor Personal Radio Free Offer



Handsome genuine leather Carrying Case valued at \$6.50 Free to Every Customer buying a New Improved RCA Victor Personal Radio. A \$26.50 Value which you offer for only \$20.00*

Here's easy money for you! Join the thousands of dealers who are pushing this sensational RCA Victor offer—and you'll make sales by the score.

Still an infant in age, this offer is already a giant in stature and we're tickled pink with all the enthusiasm dealers everywhere have shown. They—and you—will be even more enthusiastic once the powerful national advertising on this offer begins to roll. The ad at left is the first of a series that will make more sales for you. It runs in Life (20,000,000 readers) May 12th. So get in touch with your RCA Victor distributor now and get your supply of RCA Victor Personal Radios and carrying cases.

Improved RCA Victor Personal Radio—New Sales Features

You know what a sales wow this set has been. Now . . . it's even better than ever for it has new Ellipticon Speaker for finer tone and self-locking lid support which "locks" lid at best playing angle. Many other features, too, including four RCA Victor Tynetron Tubes which provide 6-tube performance.

"IT'S HOTTER THAN A FOUR ALARM FIRE!"



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

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



SILENT Selling

By
ART WHITE

THERE is no promotion medium to compare with the recommendation of a satisfied customer.

It is the best kind of advertising a service shop can get and it is free.

However, the serviceman obtains this "goodwill" promotion only when the customer is fully satisfied both as to the fairness of the service charge and the quality of work performed.

Good servicemen are aware of these important requirements but frequently find it difficult to meet both requirements. It may be that they are relying

entirely too much on technical ability.

To be successful in servicing it is also necessary to know something about showmanship and salesmanship. Both these business tools should be in every serviceman's kit.

Showmanship

Every piece of apparatus a serviceman buys or builds should be selected with two purposes in view; utility, and appearance to impress the customer.

A few meters and switches scattered at random on a bench or mounted on a plain wood panel may tell the serviceman what he wants to know but lack customer appeal.

A service bench equipped with the latest testing equipment and attractively arranged is bound to impress your clientele. This angle of showmanship comes under the head of "silent selling." It convinces your customer that your shop is properly equipped for quality service.

Salesmanship

There are numerous "tricks of the trade" where salesmanship can be brought into play.

When you take a set out of a cabinet make it a point to show the underside of the chassis to the customer. Accompany this subtle selling with a few appropriate remarks on its intricate wiring. Give out a little information why radios break down and how tubes change with age, all leading up to the point that quality service demands careful work and the latest equipment to place the set back in its original operating state.

Sales Aids

Sales aids like the above will raise the value of your work in the customer's eyes and he will see the fairness of your service charge.

It has been said that Dale Carnegie, the lecturer and writer, once declared that 85% of a certain business success was due to personality and only 15% to technical knowledge. Although, this percentage ratio may not be applicable to radio service work, it is an important factor.

A service shop should be constantly checked for promotion efficiency. The accompanying guide and check list may help.

Do You Do These Things?

TRAINING

- Attend service meetings
- Read books on new developments
- Read trade publications

SHOWMANSHIP

- Modernize shop with latest equipment
- Arrange instruments for "eye appeal"
- Check personal appearance of self and staff

SALESMANSHIP

- Study and utilize sales psychology
- Demonstrate complicated operation of a set
- Explain why a set breaks down

MANAGEMENT

- Keep strict account of overhead
- Plan work to eliminate waste motion

ADVERTISING

- Solicit with cards and folders
- Use the newspapers
- Promote by direct mail

SOUND

By S. J. WHITE, E.E.

White Sound Service

PRACTICALLY all top-flight singers and entertainers depend upon amplifiers to put over their stuff. Their style and technique is so completely tied up with the mike that they are temporarily "liquidated" when the sound system fails.

Aside from the requirements of coverage and noise level, modern entertainers use a mike because they feel it adds resonance, personality and that "indescribable something" to their voices. (Billie Holiday, one of New York's most popular hot spot singers, will not leave her dressing room if the sound system is out of order.)

Building Repeat Business

Night clubs, road houses, hotels, taverns, summer resorts, and other enterprises which feature entertainment can't function properly without a sound reinforcing system.

Many performers even refuse to use a system unless it has a modern microphone and possesses high fidelity quality. And this is swell for the sound dealer. There is always an opportunity for re-vamping and improvement of equipment.

Most night clubs redecorate every year or two, and they are then especially receptive to newer and better microphones and trouble-free installations. Change of ownership occurs frequently, each change providing another re-sale opportunity. (On the other hand, frequent change of ownership is unfortunate from a credit standpoint. The writer urges a policy of strictly cash, or terms so arranged that the dealers entire cost of equipment is covered in the down payment. Sales should be arranged thru a Conditional Sales Contract, made out in triplicate and one copy filed with the

for the Hot Spots



TORCH SINGER Hazel Scott "heats it out" into a microphone at New York's Cafe Society

County Clerk. In other words, handle the transactions as a Chattel Mortgage.)

Attached to every night club or hotel are press-agents, talent-book- ing agents, directors and producers of floor shows. Once an installation is made the dealer should cultivate their acquaintance as they can frequently furnish leads on other installations.

Bass Without Boominess

About the technical aspects of the installations: Most performers desire strong bass. In the average amplifier, this is generally obtained by a "high cut," that is, by a simple tone control which cuts off the high frequency response. This method of adding "apparent bass" provides a loss in intelligibility, and the system sounds boomy without clarity. The proper method is by means of a genuine bass-boost control which does not cut off the highs.

One successful circuit drops the middle register, leaving the bass and

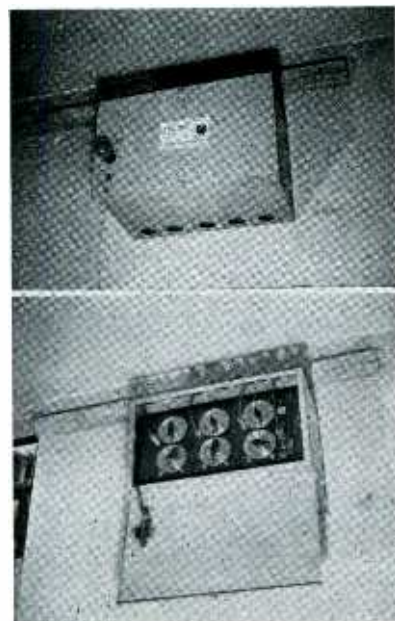
the extreme upper register 15 to 25 db above the level of the middle frequencies. This type of high and low boost gives singers those "chesty" tones they so much desire and at the same time maintains the sibilant sounds necessary for intelligibility among noisy audiences. This type of response also helps overcome feedback difficulties, as the feedback frequency is generally in the middle or upper middle register.

We feature tamper-proof installations. For this purpose the amplifier is installed in a heavy steel box with nothing exposed except the line switch and pilot light. Volume and tone controls are pre-set. This type of box is known in the electrical trade as a "Columbia Type A box." Microphone and loudspeaker lines are run in BX cable.

Other Technical Aspects

Another thing urged upon hot spot owners is the installation of an emergency amplifier. This generally consists of a 15-watt amplifier wired to a throw-over switch so that in

NIGHT CLUBS are tricky to sell but this business really "sticks to your ribs" if you know their special requirements



MUSTN'T TOUCH — This tamper-proof 40-watt amplifier handling six mikes is completely enclosed in a locked steel cabinet mounted close to the ceiling. Only a pull-chain line switch and pilot light are exposed. All controls are pre-set

the event of main amplifier failure the mike and speaker lines may be thrown over to the emergency unit. With the cost of such 15-watt amplifiers as low as they are today, the increase in total installation cost is small but adds a powerful sales argument to the deal. Besides, such an emergency unit will permit the show to go on, without the dealer having to provide service in the wee small hours of the morning.



BASEMENT BARNUM — Collected for 20 years, first as a hobby and today as a business, Ken Rogerson's classical record library plus clever showmanship supplies a unique sales spearhead

WEDNESDAY AT 8—In this "basement auditorium" beneath his Salt Lake City radio and appliance store music lovers gather weekly to hear the latest releases and Rogerson's tied-in talks



Try COMBINATION Concerts

KEN ROGERSON of Salt Lake City decided three years ago while working as a salesman that the best way to sell radio-phonograph combinations was through good music. Since then he's proven it in his own store and \$9,000 worth of business on this class of merchandise alone in the month of December is pretty convincing proof.

For 20 years Rogerson (whose hobby is singing) had collected classical records. When radio-phonograph combinations started their comeback he inaugurated Friday evening concerts in his home for the fun of it, using a library of 2,500 discs, one of the most diversified in the West. Friends became interested and asked his advice about both records and machines. So he continued the weekly concert idea (changing the day to Wednesday) when he opened his own radio and appliance store, using prospects so attracted as the nucleus of the new business.

In order to conduct such weekly

concerts it was necessary to have a music room or auditorium." Rogerson adapted the basement beneath his store, 18 by 50 feet overall, to this purpose.

How It Is Done

He whitewashed the walls, carpeted the floor, placed drapes around the area to kill nasty echoes, moved in a few easy chairs and settees and a lot of folding camp chairs, built a platform up front. The finest model he had in stock went up on the platform for actual use during the concert while other models were scattered around the basement and the walls decorated with posters, banners, and lists of new releases. (The audience can scarcely fail to read these advertisements before, during or after the performance).

Rogerson himself talks about the music to be played each Wednesday, before he places discs on the machine. This helps stimulate interest. Releases for the following week's concerts are usually announced in advance and then this program adhered to. But "request" numbers usually finish the show. Names and addresses of people attending are, naturally, solicited. And, because of the theatrelike atmosphere apparently, are not ordinarily difficult to obtain for direct-mail work.

Sell Music First

Demonstration of combinations is by no means limited to these regular store concerts. Rogerson frequently arranges similar programs in clubs, churches and schools. He says he has taken machines to practically every music center in the State, giving concerts as well in the homes of many prominent Utah musicians.

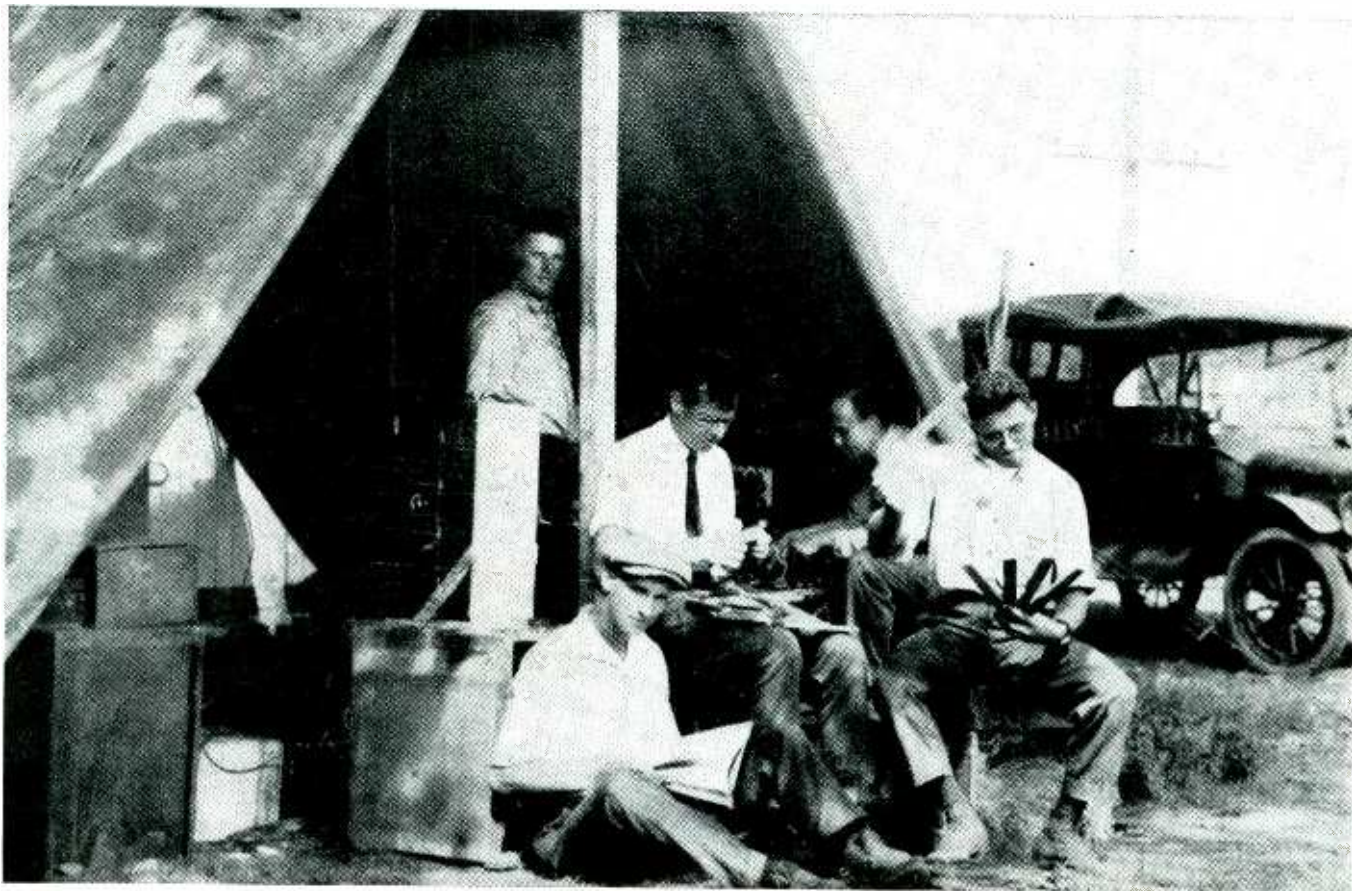
5 REASONS WHY... ~~CROSELY~~ DEALERS CAN EXPECT THE GREATEST INCREASE IN THE RADIO INDUSTRY THIS YEAR

- 1 Sensational values—more tubes—bigger speakers—bigger chassis—3 gang condensers—superior performance.
- 2 Cabinets so beautiful . . . so BIG . . . that, standing by comparative models, they will make customers say, "I WANT THE CROSELY."
- 3 The most impressive dial in the industry.
- 4 Exclusive features that the customer can see, feel and hear—that don't have to be explained. The kind the retail salesman will use to close sales faster.
- 5 A NEW INVENTION (Patent applied for)—

THE GREATEST ADVANCE IN PHONOGRAPH COMBINATIONS
SINCE THE AUTOMATIC RECORD CHANGER
DON'T BUY UNTIL YOU SEE ~~CROSELY!~~

Crosley Refrigeration Gains beat the industry by 2½ times and now the stage is set for another Record in Radio. And an advertising theme for radio as powerful as "TWICE AS MUCH FOOD TO THE FRONT," the Crosley advertising theme for the Super Shelvador.

THE CROSELY CORPORATION
POWEL CROSELY, JR. PRES. . CINCINNATI, OHIO



It all started in a tent...

AGAINST the horizon of "the spires of Princeton," the world's largest radio research laboratories are to be built by the Radio Corporation of America at Princeton, New Jersey.

The new RCA Laboratories, to be completed before the year-end, are planned to promote the growth of radio as an art and industry, and to meet the expanding demands of national defense. Several

hundred research experts and engineers will coordinate their efforts to create new products and services, and improve existing ones, in all fields of radio and electronics.

The march of progress which has led to Princeton started back in 1919 when the first RCA laboratory was located in a tent, later to be augmented by a shack 15 feet square at Riverhead, L. I. From

that humble beginning, with public service as the watchword, RCA has pioneered in radio manufacturing, international communications, marine radio, broadcasting, sound reproduction and television. Through continuous research it has discovered keys that have unlocked new doors of radio science, and has extended the usefulness of radio into many realms of public service.

Now, RCA research experts on a united front at Princeton are to take another historic step to enhance America's preeminence in radio, and to increase the services of radio to the Government, to the people of the United States and to industry.



RCA LABORATORIES

A SERVICE OF RADIO CORPORATION OF AMERICA
Radio City, New York

RCA Manufacturing Co., Inc. • Radiomarine Corporation of America
RCA Laboratories • National Broadcasting Company, Inc.
R.C.A. Communications, Inc. • RCA Institutes, Inc.

"LUCKY, 1724"—She gets the kitchen tongs

I HAVE OFTEN recommended that the appliance canvasser leave his business card with every woman with whom he holds conversation, promising or otherwise. Cards should also be left in the mail box or under the door of homes where no one answers the bell.

Now John Harkins, proprietor of the General Appliance Company, 713 So. 52nd Street in Philadelphia, comes along with an effective variation. He presents a gift to any person who comes into the store and tenders a card left by one of his canvassers. And hereby hangs a



APPLIANCE

tale with much more important consequences than you think.

Idea "Just Grew"

The gift, a pair of kitchen tongs which Harkins buys in large lots for about 3¢ each, was originally used as a door opener. One of the men, who was getting into quite a few homes with it, didn't want to carry so many pairs with him. So he began to merely leave his card, telling the lady she could get the gift whenever she came into the store and presented it.

Another man, duplicating the dodge, wanted to get his message across to the "outs" also. So he started writing on the card, "Stop in for your free gift."

Then he really got smart. He added a little more to each message. He still wrote "Stop in for your free gift" but, over that, he scribbled the number of the house and the word "lucky." For example, if the house number was 1724 Yed-

NOBODY HOME?

TRY THIS simple stunt and watch it build store traffic

Canvassing Idea

By CASWELL ODEN

dell Street, then he wrote "#1724—lucky!"

Well, well, well. . . .

As I sit here writing this, he has just returned from canvassing, and already three people have come in for the tongs! Every one of them with a "lucky" card. Naturally. They are all lucky. But prospects don't know that.

Three Calls Daily

Since he was canvassing about twenty blocks from the store, I think this is remarkable. And since these walk-ins developed where *nobody was home* when he rang the bell . . . well, what do you think? Is it a good idea for a canvasser?

It is too early to be sure, but I honestly believe this idea will develop an average of at least three walk-ins a day when worked that same distance from the store. Farther away, not quite as good; closer to the store, still more.

And if the canvasser has somebody in the store who can sell

something to a few of these people, he'll get additional business without much effort on his part.

Boss Does Closing

The canvassers I'm talking about have somebody like that. Harkins used to be with The Philadelphia Gas Works Co. He was sales manager for one of the branches, with around 60 salesmen under his direction, and his branch was generally on top.

He does pretty good as a dealer, too. His store is about 15' x 25', but during 1939 he sold 565 refrigerators.

He's pretty good at checking credit too, if you want to know the truth. Out of those 565 boxes he had six reverts. Or should I stop giving him the works. . . .

How come, so much business with such a small store? Well, you see, he agrees with me. He thinks that canvassing is one job, and selling another . . . or are you tired of hearing that?

THE NEW



SELF-



USES NO DRY CELLS



NO OTHER PORTABLE HAS ANY OF THESE SALES ADVANTAGES

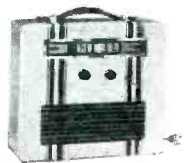
1. No battery replacement worries.
2. Has built-in non-spillable airplane-type Willard storage battery and General Electric battery charger.
3. Plays anywhere on its storage battery.
4. Self-charges while playing on AC house current.
5. Charges on AC without playing, if desired.
6. Has provision for charging from auto battery.

MODEL LB-530—Operates on AC or on its own Rechargeable Storage Battery. Built-in Beam-a-Scope located in lid—away from metal chassis—for finer reception. Additional Window Antenna provided. De Luxe Luggage Case finished in brown simulated leather. Complete with self-contained storage battery and battery charger. Retail for \$39.95.*

AND A NEW G-E PORTABLE IN EVERY POPULAR PRICE BRACKET



MODEL LB-412—Camera-Type Carryabout. Light brown with dark brown trim. Complete with dry batteries—\$16.95.*



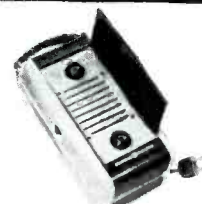
MODEL LB-700—Three-Way Luggage-Type Carryabout. Tan basket-weave fabric. Complete with dry batteries—\$29.95.*



MODEL LB-603—Plays on AC or DC house current or on its batteries. Two tones of brown. Complete with dry batteries—\$26.50.*



MODEL LB-702—De Luxe Luggage-Type Carryabout. Tan fabric with brown and ivory stripes. Complete with dry batteries—\$34.95.*



MODEL LB-502—Plays on AC or DC house current or on its batteries. Dark blue and gray. Complete with dry batteries—\$22.95.*

*All prices subject to change without notice and may vary in different localities.

CHARGING PORTABLE

BACKED BY AN "ALL-OUT"
ADVERTISING PROGRAM
 IN 7 NATIONAL MAGAZINES

KEY YOUR LOCAL ADVERTISING
 WITH THIS NATIONAL SCHEDULE

| Magazine | May | June | July | August |
|-----------------------|------|-----------|-----------|--------|
| Saturday Evening Post | 24th | 7th, 21st | 5th | |
| Life | 19th | 16th | 7th, 21st | |
| Look | 20th | 17th | 14th | |
| Field & Stream | May | June | July | August |
| Yachting | May | June | July | August |
| Motor Boating | May | June | July | August |
| Boy's Life | May | June | July | August |

ASK YOUR G-E RADIO
 DISTRIBUTOR FOR
 READY-MADE NEWS-
 PAPER AD MATS SO
 THAT YOU CAN TIE
 IN AND CASH IN ON
 THIS NATIONAL AD-
 VERTISING.



See your G-E Radio Dis-
 tributor for this Colorful
 Sales-making Display.



GENERAL  ELECTRIC

DEPARTMENT STORE Promotion

By **ROBERT LATIMER**

ONE OF THE most effective department store radio merchandising ideas ever developed in St. Louis is the "Every-employee-a-salesman" promotion inaugurated by radio buyer Henry Free of Scruggs-Vandervoort-Barney for the spring 1941 selling season.

Convinced that the radio department personnel itself was not sufficiently supplied with leads to do a 100% selling job on the large line of sets handled by the store, Free began in January to have 500 employees in other departments serve in the capacity of "lead detectives."

Since January 10 every employee, whether an elevator operator or a hosiery salesgirl, has been helping the radio department sell. And there has been a continuous increase of 30% in the number of sets sold the same spring season of 1940.

Basic Plan Simple

The plan is simple but involved plenty of showmanship in selling

store personnel the idea of spending a few extra moments daily drumming up more business for the radio department.

For effectually putting across the idea, Free held two private showings of the 1941 radio lines for all store employees. It was held after hours, publicized by notices and invitations to everyone to come up to the fourth floor, look at the new radio lines and ask questions. Following these two showings, Free held a huge salesmeeting before store hours January 10th, familiarizing employees with the selling points of each radio.

An opportunity for store employees to earn extra income through sales leads for radios was at this time outlined. This was an offer of a 2% commission to every employee turning in a bona-fide lead which later developed into a sale, with no strings attached as to how or where the prospect originated. Only restriction made was

"Lead DETECTIVES"

RADIO BUYER for St. Louis' Scruggs-Vandervoort-Barney hits on an idea that boosts radio sales 30 per cent in first quarter

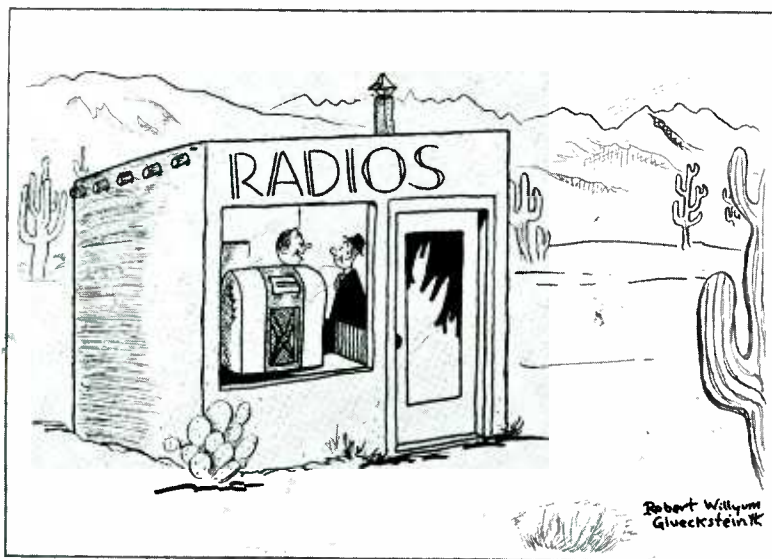
that a lead would be credited to just one employee, the first delivering a name personally to Free rather than to salespeople in the radio department. This latter provision was made in view of the fact that leads given different salesmen would inevitably result in duplication of effort and a great deal of waste motion.

When the prospect is turned in, the employee receives a receipt and is later notified when the sale is made, or why it could not be made. Beyond turning in the lead, employees are asked not to spend any more time with the prospect, with the thought in mind that only experienced salesmen should attempt to close.

100 Extra Sales

Since this plan has been in use, there has been an almost constant stream of employees filing in and out of Free's office with leads. A total of more than 250 were turned in during the first six weeks. More than 100 sales which might never have been realized by the store are tangible results of the promotion.

"We think this idea is extremely valuable," Free remarks. "The fact that store employees each have a wide circle of friends, and are thoroughly familiar with the buying habits and needs of these friends is alone an important factor. Their efforts among such people carry more weight than all our other advertising combined."



Small stock, low overhead, quick turnover—I can afford to give you a price!

More ***NEW*** Models BY **FARNSWORTH**



FARNSWORTH MODEL CT-43 . . . A two-way winner. Cabinet-enclosed battery, 4-tube Superheterodyne. Permanent magnet dynamic speaker. Standard and police broadcasts. Automatic volume control. Convertible to 5 tube AC-DC by adding 117Z6GT tube. Operates from any standard make power pack. Two-tone mahogany plastic cabinet with bronze finish grille. Size 12" long, 7 $\frac{3}{8}$ " high and 7" deep.



FARNSWORTH MODEL CT-42 . . . 4-tube Superheterodyne. 6" permanent magnet dynamic speaker. Automatic volume control. Cabinet takes any standard make battery pack. Standard and police broadcasts, high legibility slide rule dial with two-fane metal escutcheon. Beautiful walnut veneer cabinet size 18 $\frac{1}{2}$ " long, 9 $\frac{1}{2}$ " high and 10 $\frac{3}{4}$ " deep.



FARNSWORTH MODEL CT-41 . . . 4-tube Superheterodyne. Permanent magnet dynamic speaker. Standard and police broadcasts. Automatic volume control. Cabinet enclosed battery. Takes any standard power pack. Mahogany finish plastic cabinet size 12" long, 7 $\frac{3}{8}$ " high and 7" deep.

Following right on the heels of our successful introduction of the sensational three-way "Tripleplay" camera-type portable Model CT-59 at \$19.95 and the style leader Model CT-60 luggage-type super performer, Farnsworth presents a further forecast of more to come—and right in line with the season. Here's the low-down on three new beauties just introduced into the Farnsworth line—and they'll be there in 1942.

Battery operated—though that winner at the top is convertible either to AC or DC by the addition of one tube. Looks that a Ziegfeld girl could envy—tone and performance that is demonstrably superior—priced to close sales on the spot.

Opening Big New Markets For You

These new Farnsworth sets are built for the millions of un-wired homes. Farm homes. Country homes. Summer cottages. Hunting lodges. Fishing camps. The places your customers will be this summer. We are offering these to you now, in advance of our full line announcement, to give you the jump on this important market.

Low priced for quick sale and *many customers*. And still they show you a fine profit. Read the description accompanying each illustration—then be prepared to take the brakes off your order pencil. You can inspect these sensational new models at your Farnsworth distributor's, and get more money-making facts from him. Or phone, wire, or write to Farnsworth Television & Radio Corporation, Fort Wayne, Indiana.

FARNSWORTH

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

WHAT Makes a Mike Good?

It's good when it gives customers what they want in better frequency response without distortion; when it gives extra octaves in the high frequency end of the audio band, as well as smooth response when the bass register must be reproduced; it's good when it's dependable under all climatic conditions and its appearance gives pride in ownership.

TURNER Microphones Are GOOD

Because they offer EXTENDED Frequency Range, without Distortion, Highest dependability and professional appearance.



TURNER HAN-D Models

Multi-purpose mikes, for voice, music pick-up or auto use. Brushed chrome finish. Range 60—7,000 cycles. Positive off-on contact switch. With 7 ft. removable cable set. 9D Dynamic, 200 ohm, 500 ohm or hi-impedance, Level -50DB, List \$25.00. 9X Crystal, level -48DB. List \$22.50.

TURNER 99

Tough, reliable 99 is first choice of veterans, and demanded by internationally famous manufacturers for their finest equipment. Gunmetal finish. 40—9,000 cycles; level -52DB. With 25 ft. cable set, 200, 500 ohm or high impedance, List \$29.50

Crystals Licensed Under Patents of The Brush Development Co.

Write for Free Turner Microphone Catalog. The Turner Co., 17th St. N. E., Cedar Rapids, Iowa.



FREE!

16-page Manual giving complete information on Turner Push-Pull Vibrators. Contains helpful replacement information you'll want. Send for your FREE copy today. Use Coupon below.

10 Engineering
Advancements
Cut Service
Costs—Please
Customers

No other Vibrator offers so much trouble-free operation. Old stack-type assembly eliminated; contact points micro-adjusted at the factory. Available in Standard as well as Push-Pull models.

**TURNER
PUSH
PULL
VIBRATORS**

The Turner Co.
915 17th St. N.E., Cedar Rapids, Iowa

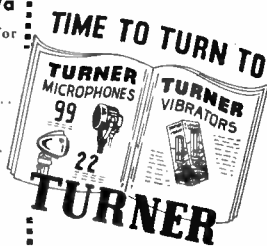
Please send me FREE Turner Vibrator Manual for Radio Service Engineers.

Name

Address

City State

My Jobber Is



Get the Selling Help of Simplified Record Changers



Your Tests
Will O. K.
Model GI-C120

CUSTOMERS like

the easy-to-run GI-C120 Changer, with only *one lever* to set for automatic changing of 10" or 12" records or hand changing. Streamlined, smart-looking in any style cabinet. Quiet. Always dependable in operation. GI-C120 Changer includes drop type changer mechanism, high-quality tangent-tracking crystal pickup, motor and turntable, all mounted on base plate, ready to install.

The ideal motors to power your portable and table model phonographs are light-weight, low-cost General Industries "X" Series Motors. Self-starting, fan-cooled, induction type.

General Industries phonograph equipment is built by specialists and tailored to fit 1941 requirements in rebuilding and new instruments. When ordering, please state frequency and voltage of current you use. Send for catalog and prices.

The **GENERAL INDUSTRIES CO.** Dept. 16
ELYRIA, OHIO
Order your cutting and play-back needles from our affiliate,
General Phonograph Mfg. Co., Inc., Putnam, Conn.

Serviceman's Standby

1941 Edition, New, Improved
SYLVANIA

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.

SYLVANIA

SET-TESTED RADIO TUBES

HYGRADE SYLVANIA CORP., Emporium, Pa.
St. Marys, Pa., Towanda, Pa., Salem, Mass.,
Ipswich, Mass.

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

3 More Motion WINDOWS

Second of a Series

By I. L. COCHRANE

EVERY RADIO-APPLIANCE dealer has, right around him, all sorts of gadgets which can be quickly transformed into action window display "props."

You have turned-in motors, fans, phonograph turntables and other basic parts useful for display and so, at very little cost, can rig up motion windows which will attract more prospects.

Round and Round

A phonograph is a ready-made display turntable, only it is too fast for most uses and, as a rule, will carry only light loads. Nevertheless, 33 r.p.m. motors may occasionally be used in connection with small items easily recognized even when whirled rather fast.

A better way to make your own display turntable is to use geared-down fractional horsepower motors such as those taken from turned-in washers and ironers. May I recommend the use of *two* such turntables in your next window, instead of the usual one. Why? Because with two turntables revolving in opposite directions much more action is produced and the display gains considerable additional eye appeal.

Make two boxes about 20 inches long, 10 inches wide and deep enough to suit. (Those may be rough as you will later cover them with velveteen, crepe paper or other decorative material.) Then remove the field and armature of any small motor, and use the housing for turntable spindle and bearings. Put a thrust bearing underneath the upright shaft. (A roller skate wheel will do.) Align and attach a pulley. From the pulley lead a belt to another pulley on a geared mo-

tor in the other end of the box. Figure out your pulley ratios to secure about 5 or 6 r.p.m. at the turntable.

For the counter-clockwise turntable merely twist the belt for reverse motion. As the turntable spindle projects above the top of the box, any size turntable may be affixed to suit the load. Five-ply veneer wood makes a good disc, with a wide-face bushing attached to the exact center.

Place these two turntables in each forward corner of your window. Later on, many other ways will be found to use one or both of them.

Cellophane Color Fountain

A cellophane "color fountain" was recently used with good effect in a swank Fifth Avenue window. It was quite elaborate, but here's a way to duplicate it, at low cost:

From the nearest five-and-ten purchase two or three rolls of white cellophane sheet. Without crumpling, shuffle these sheets into an irregular, loose mass which will stand up with the sheets more or less on edge. Scallop with a pair of scissors the top, forward edges and bend some of these scalloped edges backward. Tack the bottom edges of this bunch of cellophane over an opening in the top of a covered or draped box about 18 inches long, 15 inches wide and 10 inches high.

Inside, on the bottom of the box, secure two lamp sockets, and use white lamps of a wattage to give the best effect in your particular window. Cut a 12-inch cardboard disc with five circular holes arranged in a circle around its center.

the holes to be as large as possible. Over the holes mount red, blue, green and amber (two with red) color screens of any kind. Attach the color disc to the spindle of a 33 r.p.m. phono motor, so placed that the color discs revolve over the lamps.

Thus a stream of varying brilliant colors are made to move, in a fountain effect, up through the cellophane. (For best effect the fountain should be placed between two cabinets with some opaque decorative features across the top of the cabinets, in order to partly mask both daylight and ceiling lights. In daytime bring the window curtains down as far as possible, and also keep the awning down.)

Floating Tubes

You may be featuring tube replacement.

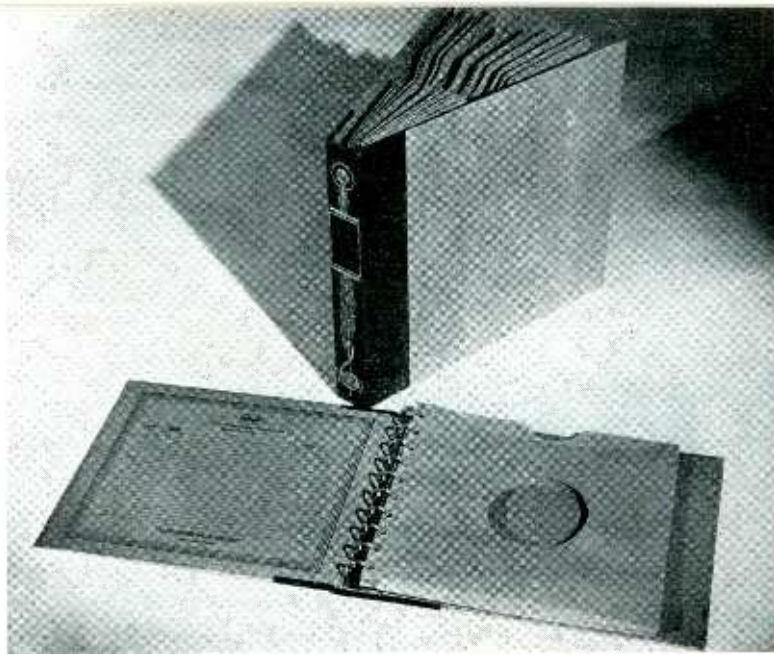
Draw and then cut a paper pattern of a leaf, about 8 inches the long way. From dark green, purple, silver or gold metallic paper cut twelve leaves like this pattern, six from the color side of the material and six from the white side. Then glue or paste together each set in order to make six two-sided colorful modernistic leaves.

To each side of each completed leaf attach a tube, or other small item, and suspend the leaves from the ceiling on thin, stout, black linen thread.

A concealed oscillating fan will keep the leaves swaying back and forth and form a simple and colorful action display.

Action GETS Action

STATIC displays may be good but make them move and more people are attracted



All About RECORD ALBUMS

| Model | Type of Binding | Record Size (inches) | Pockets | Finish | Color | List Price (10 in.-12 in.) |
|---|-----------------|----------------------|---------|------------------------------|------------------|----------------------------|
| Chicago Album & Specialty Co., 503 S. Jefferson St., Chicago, Ill. | | | | | | |
| A | looseleaf | 10-12 | 12 | crackle grain | maroon | ..... |
| A1 | looseleaf | 10-12 | 12 | cr. grain-gold designed back | maroon | ..... |
| B | looseleaf | 10-12 | 12 | alligator grain | maroon | ..... |
| C | looseleaf | 10-12 | 12 | leatherette | mar. or blue | ..... |
| D | looseleaf | 10-12 | 12 | cork-grain | ..... | ..... |
| D1 | looseleaf | 10-12 | 12 | leatherette | ..... | ..... |
| E | looseleaf | 12-12 | 12 | cloth | brown | ..... |
| The Favorite Manufacturing Co., 105-107 E. 12 Street, New York, N. Y. | | | | | | |
| No. 1 | bound | 12 | 6 | alligator grain | brown | .49 |
| No. 5 | bound | 10-12 | 12 | leatherette | red | .49-.59 |
| No. 7 | looseleaf | 10-12 | 12 | cloth | blue or mar. | .49-.69 |
| No. 10 | bound | 10-12 | 12 | cloth | ..... | .95-1.20 |
| No. 20 | bound | 10-12 | 12 | cloth | ..... | .69-.79 |
| No. 30 | looseleaf | 10-12 | 15 | leatherette | blue or mar. | 1.25-1.40 |
| No. 31 | bound | 10-12 | 12 | fabricoid | brown | .39-.49 |
| No. 32 | bound | 10-12 | 12 | fabricoid | brown | .60-.70 |
| No. 33 | bound | 10-12 | 12 | fabricoid | blue or mar. | .79-.89 |
| No. 34 | bound | 10&12 | 6&6 | paper | brown | .69 |
| Musicraft Records, Inc., 242 W. 55 Street, New York, N. Y. | | | | | | |
| SA 100 | looseleaf | 10 | 12 | drill & buckram | blue or tan | 1.25 |
| SA 120 | looseleaf | 12 | 12 | drill & buckram | blue or tan | 1.50 |
| SA 10 | looseleaf | 10 | 12 | leatherette | bl-br.mar. | .59 |
| SA 10 | looseleaf | 10 | 12 | pinseal keratol | blue or mar. | .69 |
| SA 12 | looseleaf | 12 | 12 | leatherette | bl-br.mar. | .79 |
| SA 12 | looseleaf | 12 | 12 | pinseal keratol | blue or mar. | .94 |
| Peerless Album Company, 38-44 W. 21 Street, New York, N. Y. | | | | | | |
| No. 4 | bound | 10-12 | 12 | leatherette | red | .70-.84 |
| No. 5 | looseleaf | 10-12 | 12 | fabricoid | mahogany | .75-.90 |
| No. 6 | bound | 10-12 | 12 | fabricoid | brown | .90-1.10 |
| No. 7 | bound | 10-12 | 12 | cloth | blue & mar. | 1.00-1.20 |
| No. 8 | bound | 10-12 | 12 | fabricoid | ..... | 1.00-1.20 |
| No. 10 | looseleaf | 10-12 | 12 | fabricoid | brown | 1.30-1.50 |
| No. 15 | looseleaf | 10-12 | .. | fabricoid | red or blue | 1.70-2.00 |
| No. 16 | bound | 10-12 | 12 | fabricoid | br. & white | .90-1.10 |
| No. 20 | looseleaf | 10-12 | 15 | fabricoid | red or blue | 1.50-1.70 |
| Carry-All | bound | 10-12 | 12 | fabricoid | ..... | 1.80-2.00 |
| Philco Radio & Tele. Corp., Philadelphia, Pa. | | | | | | |
| 45-2834 | looseleaf | 10 | .. | leatherette | maroon | 1.50 |
| 45-2835 | looseleaf | 12 | .. | leatherette | maroon | 1.75 |
| RCA Mfg. Co., Camden, N. J. | | | | | | |
| ..... | looseleaf | 10 | 12 | paper-grained | br. or gr. | 1.05 |
| ..... | looseleaf | 12 | 12 | paper-grained | red or blue | 1.25 |
| Standard | ..... | 10 | 12 | paper-grained | brown | 1.50 |
| Standard | ..... | 12 | 12 | paper-grained | green | 1.75 |
| Deluxe | ..... | 10 | 12 | cloth | br. or gr. | 2.00 |
| Deluxe | ..... | 12 | 12 | cloth | red or blue | 2.25 |
| Springfield Photo Mount Co., Holyoke, Mass. | | | | | | |
| No. 5 | looseleaf | 10 | 10 | paper | brown, black | .39-.50* |
| United Looseleaf Corp., 179 Wooster St., New York, N. Y. | | | | | | |
| 109 | bound | 10 | 9 | leatherette | ivory, grn., bl. | .35-.40* |
| 110 | bound | 10 | 12 | leatherette | garnet or blue | .60-.70* |
| 112 | bound | 12 | 12 | leatherette | garnet or blue | .70-.80* |
| R110 | looseleaf | 10 | 12 | leatherette | garnet or blue | .75-.85* |
| R112 | looseleaf | 12 | 12 | leatherette | garnet or blue | .85-.95* |
| 210 | bound | 10 | 12 | leatherette | maroon or blue | 1.00-1.15* |
| 212 | bound | 12 | 12 | leatherette | maroon or blue | 1.25-1.40* |
| R210 | looseleaf | 10 | 15 | leatherette | maroon or blue | 1.25-1.35* |
| R212 | looseleaf | 12 | 15 | leatherette | maroon or blue | 1.50-1.70* |

* List price varies in different sections of the country.

New



ADMIRAL 1942 FARM RADIO, model 51-E5, is a 4-tube 1½ volt "AB" battery superhet. Can be converted to a 5-tube 110 volt ac-dc set by the addition of one 117Z6GT tube. Modern style mahogany bakelite cabinet measures 13½ wide, 8 high and 7 inches deep. Tunes standard broadcast band. Eastern list price \$18.95.

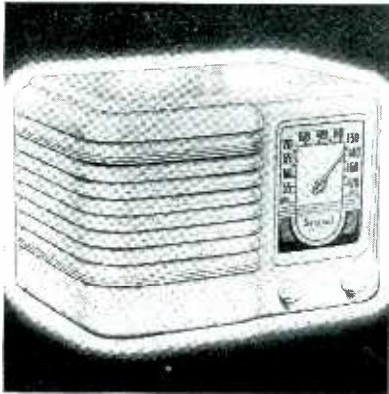


ADMIRAL BAKELITE PORTABLE radio, model 76-P5, operates on ac-dc and battery. Five-tube receiver tunes standard broadcast band. Modern styled mahogany bakelite case measures 11½ wide, 8½ high, 5¾ inches deep. Approximate shipping weight is 13¾ lbs. Eastern list price \$19.95. Continental Radio & Tele. Corp., 3800 Cortland St., Chicago, Ill.



PHILCO 3-WAY PORTABLE radio, model 854-T, provides for short wave reception in addition to the standard American broadcast band. Cabinet trimmed with solid walnut has roll top beaver-graining panel that can be opened or closed. Features noise-reducing converter tube and two I-F stages; 7-tube circuit; new simulated cork dial with foreign stations to be named by countries or cities. Philco Radio & Tele. Corp., Philadelphia, Pa.

Products . . .



SENTINEL TABLE-TYPE radio, model 249-1, a 6-tube including rectifier, superhet with 5-inch speaker tunes 540 to 1730 kc. This ivory plastic measures 12 wide, 8 high, and 6½ inches deep. List price \$19.95. Also available in walnut plastic for \$16.95. Sentinel Radio Corp., 2020 Ridge Blvd., Evanston, Ill.



EMERSON 3-WAY PORTABLE radio, 1942 model 427, operates on ac-dc or battery. Housed in two-tone simulated leather with tan front and dark tan frame. Six-tube superhet features 3-gang tuning condenser, and tunes standard American broadcasts. List price \$19.95, complete.



EMERSON PHONORADIO, model 423, tunes standard American broadcasts. Six-tube ac receiver. Cabinet finished in two-tone walnut. Phonograph is equipped with crystal pick-up and plays all size records including 12-inch with lid closed. List price \$29.95. Ac-dc operation, \$39.95. Emerson Radio & Phonograph Corp., 111 Eighth Ave., New York, N. Y.

WESTINGHOUSE 1942 PORTABLE radio "Caryette" WR-62K1, operates on ac-dc or battery. Uses 6 tubes on line power, and 5 tubes on battery. Features the "Stratoscope" antenna, and 5-inch speaker. Housed in washable brown and ivory airplane luggage fabric with darker contrasting striped saddle. Measures 12½ wide, 8¾ high, and 5¾ inches deep. Westinghouse Radio Headquarters, 150 Varick St., New York, N. Y.



MOTOROLA AUTO RADIO, "Golden Voice" model 701, has 8 tubes including rectifier and is equipped with 5 pushbuttons. Uses 3-gang condenser. Has 3-position tone control. Output 11 watts. Speaker installs in dash panel or on bulkhead. List price \$69.95. Galvin Mfg. Co., 4545 Augusta Blvd., Chicago, Ill.



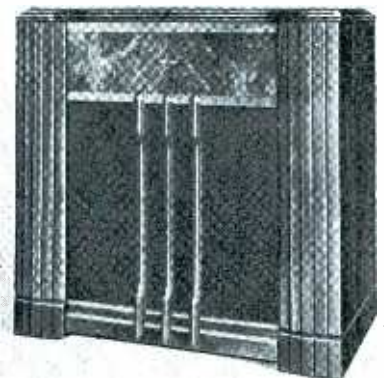
DETROLA 3-WAY PORTABLE radio, model 383, has 5 tubes and operates on ac-dc or battery. Tunes 540 to 1600 kc. Compact, wood cabinet with covering of aeroplane cloth of neutral color. Measures 7½ high, 11 wide, and 5 inches deep. Weighs 12 lbs. List price \$19.95. Detrola Corp., 1501 Beard Ave., Detroit, Mich.



HOWARD CHAIRSIDE COMBINATION radio, automatic phonograph, and recorder provides space for storing records. Seven-tube superhet tunes 2 bands, standard broadcast and foreign short wave. Record changer plays twelve 10-inch or ten 12-inch records. Cabinet available in walnut, mahogany, or blonde mahogany finish. Has 12-inch speaker and Astatic crystal microphone. Howard Radio Co., 1735 Belmont Ave., Chicago, Ill.



CROSLEY AUTOMATIC RECORD PLAYER, model CR25, can be played when connected to an ac radio receiver having phonograph terminals, and at the same time plugged into an ac 110 volt light socket. Plays 14 ten-inch or 10 twelve-inch records. Has one control button for all operations. Compact base is 14 long, 14 wide, and 3 inches deep. Price \$29.95.



CROSLEY RECORDOLA, model 28AZ, console combination radio-phonograph and recording complete with table type microphone, automatic record player, public address system. Eight-tube superhet with 10-inch speaker receives broadcasts from 550 to 18,000 kc. Uses 3-gang tuning condenser. Crosley Corp., 3401 Colerain Ave., Cincinnati, Ohio.

200 leading distributors now use this new Presto display. It mounts the Presto, Jr. turntable on your counter where your customers can see it—run it—buy it. Sent free with your first order for a Presto, Jr. turntable—a best-seller wherever it's shown. List price \$50. Order today.



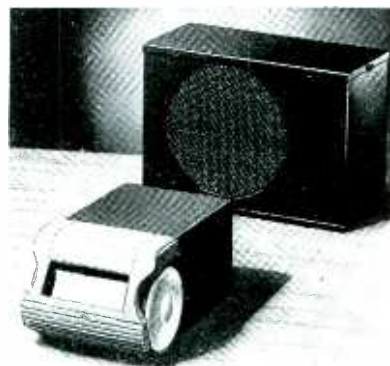
PRESTO RECORDING CORP.
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In Other Cities, Phone... ATLANTA, Jack. 4372 • BOSTON, Bel. 4510
CHICAGO, Har. 4240 • CLEVELAND, Me. 1565 • DALLAS, 37093 • DENVER, Ch. 4277 • DETROIT, Univ. 1-0180 • HOLLYWOOD, Hil. 9133 • KANSAS CITY, Vic. 4631 • MINNEAPOLIS, Atlantic 4216 • MONTREAL, Wel. 6967
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World's Largest Manufacturers of Instantaneous Sound Recording Equipment and Discs



ZENITH THREE-WAY PORTABLE radio, a 6-tube superhet, operates on ac-dc or battery. Housed in a brown airplane fabric with cover to protect the dials and controls when the set is not in use. Features the built-in movable Wavemagnet which can be removed from the set and applied to the window with rubber suction cups when the necessity for this type of antenna occurs. Factory list \$29.95. Zenith Radio Corp., 6001 Dickens Ave., Chicago, Ill.



SONORA AUTO RADIO, "Streamliner," can be installed in the newer cars with dash speaker grilles. Receiver has 5 tubes and tunes 535 to 1650 kc. Control unit and tuner stage is housed in streamlined metal case that mounts against lower edge of dashboard. Speaker and audio amplifier is contained in grey-finished steel case, has brackets for mounting behind dash speaker grille. Sonora Radio & Tele. Corp., 2626 W. Washington Blvd., Chicago, Ill.



QUIET, PLEASE! GENIUS AT WORK!

If you were to peek in Burgess' Replacement Laboratory most any day, you'd see Homer G. Snoopshaw, B. R. S., (Battery Replacement Specialist), happily solving problems for our friends and dealers. He is trying to catch up on his correspondence by June—as he hopes to attend the Radio Parts Show in Chicago, and meet you in person at booths 925-927.

BURGESS
The Complete Replacement Line

Homer says that he didn't realize, prior to his connection with Burgess, that there were so many dealers needing his help. As an indication, look at all those letters on (and around and under) Homer's desk. They are from dealers everywhere, wanting to know what battery fits what radio—and Homer tells 'em—and sends each dealer a copy of the "Burgess Replacement Guide to Portable Radios"—including the new Burgess "Quick Reference Price List".

They're both free for the asking. See your distributor or write to Homer G. Snoopshaw, B. R. S., c/o Burgess Battery Company, Freeport, Illinois.



WALTER S. KRAUS RECORD CABINET, model No. 60, hard-wood finished in walnut, mahogany, or maple stands 25 inches high. The top measures 14x18 inches. Four dividers and back are of masonite. Provides shelf-space for magazines or papers. Weighs 20 lbs. Also serves as a table upon which to set a radio. Dealer's Net \$3.00 each in lots of six, F.O.B., Ohio. The Walter S. Kraus Co., 43-10 Forty-Eighth Ave., Woodside, New York.

PHONOTONE COMBINATION RECORDER-PHONOGRAPH, model PGI, portable type P.A. unit cuts records up to 10-inch diameter. Starts recording by lowering the cutting arm over the recording disc. Weighted turntable with retractable pin permits the playing of standard 10 and 12-inch records without adjustment. Features 8 watt amplifier, and 8-inch speaker. Available with crystal microphone; with felt covered compartment in lid for records, needles, and microphone. List price \$99.50. Phonotone Laboratories, Inc., Washington, Ind.



CLAROSTAT POWER RESISTOR DECADE BOX does away with time-consuming and usually uncertain resistance calculations. It provides a precise power resistor of anywhere from 1 ohm to 999,000 ohms, for actual use in a given circuit. Also provides a power resistor handling up to 225 watts per decade. Adjusting any or all of the six rotary decade switches provides any resistance value within the range. The reading for the inserted resistance is read from the decade dials. Clarostat Mfg. Co., Inc., 285-7 North Sixth St., Brooklyn, N. Y.



UNIVERSITY SPEAKER, model MD8, medium power driver unit for use with all University reflex horns measures 3 1/2 x 3 1/2 inches. Has a uniform response at all frequencies in the range of 90 to 5000 cycles. Power rating is 12 watts. Impedance 8 ohms. Equipped with special spun aluminum can which hermetically seals the unit. List price \$19.50. University Labs., 195 Chrystie St., New York, N. Y.



ASTATIC LOW PRESSURE CRYSTAL PICKUPS OFFER OUTSTANDING ADVANTAGES

FIRST—These Pickups are made with permanent, built-in, Sapphire points, doing away with the buying and changing of needles.

SECOND—Stylus pressure of only one ounce on the record, scarcely more than one-third that of conventional pickups, reduces wear to the extent that records remain like new for years.

THIRD—The highly polished, precisely contoured Sapphire stylus, under feather weight pressure, rides record grooves with such precision as to give every tone new beauty and fidelity of reproduction.

PHONOGRAPH OWNERS are therefore interested in replacing conventional playing arms with Low Pressure Pickups. Simple to install. Nothing to get out of order. List Price \$16.50.

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- Yes... RECORDISC Home Recording Blanks are a desirable line... a PROFIT-BUILDING, constant "repeat-sale" line.

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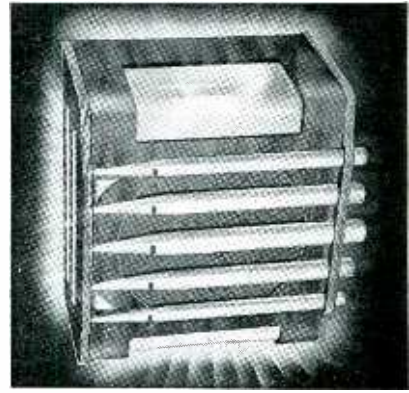
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The new WHIZ ELECTRIC TOOL is the handiest power tool ever made. A rugged tool for power and precision work. Drills through 1/4 inch iron plate in 42 seconds or engraves intricate designs. Handles any material: Metals—Woods—Alloys—Plastics—Glass—Steel—etc. Saves time. Eliminates labor. Plug into any socket AC or DC, 110 volts. Chuck 1/4 inch capacity. Ball bearing thrust. Powerful, triple-gear motor. STANDARD MODEL, with Normal Speed (uses 200 different accessories, instantly interchangeable). Price only \$7.95.

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

FREE Accessory outfit (Value \$2) includes set of drills, mounted 1 1/2 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. 6RR. 545 FIFTH AVENUE NEW YORK, N. Y.



ATLAS ILLUMINATED SPEAKER, "Organelle" model OR-12LT, is designed especially for night club, cafe, and restaurant P. A. installations. Constructed of walnut veneers and colored plastic, offering illumination on the front, sides, and bottom of the cabinet. The "pipes" are finished in gold lacquer. Has 12-inch cone unit, 16 watt peak. Measures 17 wide, 13 1/2 high, and 8 inches deep. Atlas Sound Corp., 1443 39 St., Brooklyn, N. Y.

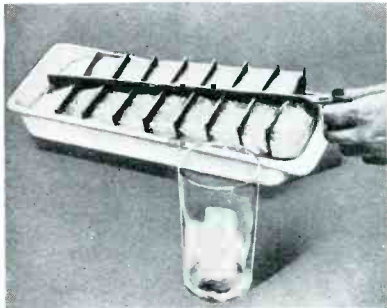


TRIPLETT SIGNAL GENERATOR, triple shielded, has 6 bands covering frequencies from 115 kc to 30.5 mc. Total scale length over 50 inches. 400 cycle audio note obtained from panel jacks. Housed in streamlined brown metal case measuring 7 1/8 x 6 1/2 x 5 1/8 inches. Model 1232-A, ac operated, U.S.A. dealer net price \$29.84, complete with accessories. Model 1231-A, U.S.A. dealer net price operating on self-contained batteries, \$27.50. The Triplet Electrical Instrument Co., Bluffton, Ohio.



RADEX PORTABLE SIGNAL GENERATOR and station finder, model B2, measures 6 1/2 x 4 1/2 sq., weighs 4 1/4 lbs. with batteries. The current drain is 50 MA on the "A" battery and 1 MA on the "B" supply. Provision is made so that the serviceman can draw his own calibration curve. Power switch also permits choice of modulated or unmodulated r-f output. \$7.95 less batteries, F.O.B., Chicago, dealer's net price. RaDEX Corp., 1733 Milwaukee Ave., Chicago, Ill.

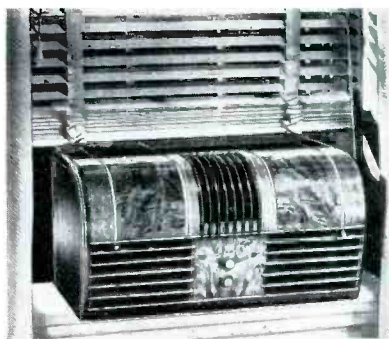
NORGE REFRIGERATOR ICE-CUBE tray has high thermal-conductivity, cleanliness, and automatic ice-cube ejection. This company claims that on the National Defense side, the new tray bids for government and popular approval by foregoing use of aluminum, designated as "critical" by the Defense Priorities Board. Norge Div., Borg-Warner Corp., 670 E. Woodbridge Ave., Detroit, Mich.



KELVINATOR REFRIGERATOR, model DA-6, features a large sliding cold chest; a glass-covered crisper and de-luxe chrome trimming on the freezer door and the base. It has 6 3/4 cu.ft. of food storage capacity; a shelf area of 11.8 sq.ft., and a freezing capacity of 64 cubes. Sells for \$134.95. Kelvinator Div., Nash-Kelvinator Corp., Detroit, Mich.

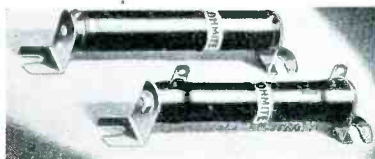


PHILCO PORTABLE AIR CONDITIONING window unit, model 61 A, is capable of serving rooms or offices approximately 15 by 79 ft. and offering a cooling capacity up to 5,750 Btu. This unit has a 1/2 horse power rating and is housed in a cabinet 13 7/8 high, 26 1/8 wide, and 16 3/4 inches deep. It not only cools, but de-humidifies and changes room air. Price \$199.50. Philco Radio & Tele. Corp., Philadelphia, Pa.



WESTERN ELECTRIC ORTHO-TRONIC AUDIOPHONE, a new instrument for the hard-of-hearing, uses the pentode vacuum tube in the "stabilized feedback" circuit. By the use of a small switch sound can be amplified greatly or in small amounts according to the individual's hearing ability. Contains a small disc-shaped crystal microphone, no larger than a cigarette case; a magnetic type receiver may be coupled with the hearing mechanism to

fit into the ear, or to rest against the head behind the ear. Western Electric Co., Inc., 195 Broadway, New York, N. Y.



OHMITE RESISTORS that are wire-wound vitreous-enamelled are available in "live" bracket types that have flexible leads connected to tin-plated brass brackets; and in "dead" bracket types which are mounted by bolting to the brackets. Electrical connections are made separately to lugs. Both are available in wide range of core sizes with diameters from 1/8 to 2 1/2 inches. Ohmite Mfg. Co., 4885 Flourney St., Chicago, Ill.

PARAMOUNT PRODUCTS WHIZ ELECTRIC TOOL for power and precision work, drills up to 1/4-inch holes, and grinds, sands, saws, polishes, sharpens, and carves. Can be operated with one hand. Weighs less than 3 1/2 lbs. Standard model, \$7.95, can be fitted with 50 different accessories for all purposes. Paramount Products Co., 48 West 48 St., New York, N. Y.



1942? FACTS About Next Year's Models!

FACT 1. It takes a long time to build a really GOOD test instrument—to get the "bugs" out—to prove, and improve, its performance and reliability. Then—when it's REALLY good—why change?

FACT 2. Today's SUPREME Instruments are as modern, as accurate, as dependable as test equipment can be built.

FACT 3. That is because SUPREME believes in, and practices, a policy of continuous improvement instead of just "putting a new coat of paint on an old chassis."

FACT 4. A new SUPREME instrument is never announced until progress in radio has developed a definite need for such an instrument.

FACT 5. Therefore, SUPREME will announce NO "new" models at the June radio show. Which proves that SUPREME Engineers know their business—that they know, and are guided by, YOUR requirements.

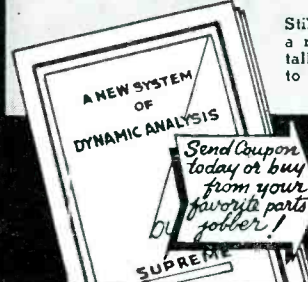
FACT 6. SUPREME Test Equipment for 1942 will be as it is now, your best buy, and "SUPREME BY COMPARISON!"

Write for SUPREME'S current catalog. It pictures and describes the instruments your Jobber has in stock NOW—for 1942. Due to present conditions, prices and prompt delivery guaranteed only until June 1st.



JOE'S RADIO SERVICE

Still time to get your new SUPREME Book explaining a new servicing procedure that makes an ailing radio talk to you like a patient talks to his doctor. Only 35c to cover cost of printing and mailing.



SUPREME Instruments Corp., Dept. RR2 Greenwood, Miss. Gentlemen: I enclose 35c. Please send me your new book referred to above.

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INSIDE Stuff

RAW MATERIAL HOLDUPS, naturally worrying manufacturers who must plan long-range production, nevertheless need not cause radio dealers much loss of sleep. There will be some finished product delivery delays and occasional clean-out of certain numbers, of course. But intelligent factory schedules should tide over the bump so that merchandisers in this field are less affected than retailers in many others. We say this because (a) present shortages are largely due to anticipatory exercise of priorities rather than to heavy industry's immediate defense item fabrication ability and will eventually relax somewhat, releasing more material for normal domestic production needs (b) rapid increase in raw material production should provide an adequate supply for both purposes before the stock situation becomes really serious down at the retailer's end of the distribution system (d) radio manufacturers are already developing substitutes just to play safe in case the last mentioned move is delayed. More about this subject, in feature form, in *Radio Retailing's* next issue.

REGIONAL CONVENTIONS will be the rule and national meetings (to which distributors are ferried from far and wide) the exception this season as manufacturers unveil new 1942 sets. This continues a trend which started to make itself evident last year and there are even a few manufacturers planning to do the job with a further minimizing of fuss and feathers by simply shipping samples to distributors, thus limiting line announcements to dealer shows. Most new model unveilings are, as usual, scheduled for June, with a few in late May and some overflow in early July. We're already starting to gather advance dope for our special June new merchandising number, most important of the year.

PHONOGRAPH COMBINATIONS are so hot in the big cities that it seems likely the promotion pendulum will swing too far in that direction and away from straight radio consoles. While total industry sales of the latter type of equipment will probably fall off still further in 1941 there are thousands of people, particularly in small towns, who don't care a tinker's about playing records. So we wouldn't be surprised to see those few manufacturers keeping up some straight console effort turning in a nice profit on such sets due to decreased competitive pressure.

CONCERNING F-M, we hear that Frequency Modulation Broadcasters, Inc., begins immediately compiling monthly sales statistics; that the first FM portable will soon appear on the market (should be hot stuff for New England

vacation areas); that an FM auto-radio will shortly be seen; that people within range of the Mt. Washington (N. H.) transmitter have been buying an average of 100 sets per week since this Yankee Network station opened.

BROADCAST RATE CARDS just released by NBC and CBS show the cost of one evening hour near \$10,000 for basic 26-station networks. Add the extra cost of supplementary stations tagged on by many advertisers, and talent costs, and the total resembles telephone numbers. Few listeners realize just how much they get for their money when they buy a radio. And we'll bet there are a lot of dealers who have little idea about network time rates too.

INTERESTING STATISTICS regarding radio store advertising and occupancy expenses, compiled by Dun & Bradstreet, were brought to our attention this month. Figures show our group spends 2.4 per cent of its net sales total for advertising, exceeded only by fur stores among 59 reporting trades. Radio store occupancy expense averages 5.1 per cent of total net sales, about midway in a list of 50 trades studied.

YOUR EDITORS got a practical demonstration of what recording can do this month when a subscriber up in New Hampshire, asked to note the effects of broadcast station reallocation and then write us about his "before and after" listening experience, sent instead a set of discs which permitted us to actually listen to signals rolling in up there near the border right here in New York. We were, and are, impressed.

NOW NOT SO SECRETLY, we wonder how many subscribers noted that our April issue reallocation cover was carefully designed so that it might be used as a poster . . . and how many used it that way.

ADVERTISING AGENCIES frequently call us up to ask how many radios in use tune to the shortwaves. We keep telling them that we've never found a way to estimate this with sufficient accuracy to warrant printing and that it is even difficult to tell how many of the receivers shipped each year have extended bands because most manufacturers make no distinction in their overall records. Now the Department of Commerce, Bureau of the Census, comes out with some figures concerning the number of sets sold in five specific years that "tune beyond the standard bands:"

| | |
|----------------|-----------|
| 1939 | 2,894,901 |
| 1937 | 3,563,247 |
| 1935 | 2,960,559 |
| 1933 | 115,519 |
| 1931 | 11,078 |

Parts Show Exhibitors

Latest list indicates high manufacturer interest, wide display diversification

CHICAGO—A list of firms planning to exhibit June 10-13 at the National Radio Parts Trade Show in the Hotel Stevens of this city indicates high manufacturer interest and wide display diversification. Furnished by managing director Ken Hathaway, the latest tabulation lists the following firms reserving booth space up to April 14:

| | |
|----------------------|-------------------|
| Aerovox | Lectrohm |
| Alliance Mfg. | Les Logan |
| Alpha Wire | |
| American Lava | Mallory |
| American Mic. | Meck |
| American Phenolic | Meissner |
| American Radio Hard. | Millen |
| American Television | Million |
| Amperite | |
| Astatic | National Carbon |
| Atlas Condenser | National |
| Atlas Sound | |
| Audak | Ohmite |
| Audio Devices | Operadio |
| | Oxford Tartak |
| Belden | |
| Bell Sound | Park Metalware |
| Bliley | Par-Metal |
| Bogen, David | Permo |
| Brand, Wm. | Pioneer |
| Brush | Precision App. |
| Bud | Premax |
| Burgess | Presto |
| | Quam-Nichols |
| Carron | |
| Centralab | Racon |
| Cinaudagraph | Radioart |
| Clarostat | Radio City Prod. |
| Continental Carbon | Raytheon |
| Continental Elec. | RCA |
| Consolidated Lamp | Readrite |
| Cornell-Dubilier | RecorDisc |
| Crowe | Rek-O-Kut |
| | Rider, John F. |
| DeJur-Amsco | Rola |
| Drake | |
| | Schott, Walter L. |
| Eicor | Shure |
| Electric Soldering | Simpson Electric |
| Electro Voice | Solar |
| Electrovox | Specialties Mfg. |
| | Sprague |
| Garrard | Standard Trans. |
| General Cement | Supreme |
| General Ceramics | |
| General Batteries | Thordarson |
| General Industries | Transformer Corp. |
| General Trans. | Trav-Ler Karenola |
| | Trimm |
| Haldorsen | Triplett |
| Hallicrafters | Tung-Sol |
| Hammarlund | Turner |
| Hickok | |
| Howard | United Trans. |
| Hygrade-Sylvania | University Labs. |
| Hytron | Utah |
| | Vaco |
| Indiana Steel | |
| Insuline | Ward Leonard |
| International Res. | Ward Products |
| | Webber, Earl |
| Jackson | Webster-Chicago |
| Jensen | Webster Electric |
| J.F.D. | Weston |
| Johnson, E. F. | Wilcox-Gay |
| | Wirt |
| Kainer | Worner Products |
| Ken-Rad | |

Radio Retailing will, of course, have a booth, as will several other publishers.

Sets-Up Agency

NEWARK—After being with National Union since its conception, V. Hamilton, western sales manager, has resigned to devote himself to his own business, Hamilton Associated Industries at 646 N. Michigan Ave., Chicago, Ill.

On the Newsfront

Defense Revenue

Treasury proposes 10% radio excise tax

WASHINGTON—A 10 percent excise tax rate on radios, phonograph records, and refrigerators was included in the \$3½ billion national defense revenue program recently presented to Congress by the Treasury department. The 10 percent radio tax is an increase of 4½ percent from the present rate of 5½ percent and involves a percentage increase of 81.81 percent, with an estimated increased levy on the radio industry of \$6,300,000. Last year the government's radio tax collections were \$6,860,000.

The record-breaking national defense tax program was temporary and for the emergency, as stated by Secretary Morgenthau when he presented tax increase program to the House Ways and Means Committee.

A general manufacturers' sales tax with repeal of the special "nuisance" taxes now in effect, still is under discussion with considerable support, but is opposed by Treasury department. Such a general manufacturers' sales tax, with necessities exempted, would require a minimum rate of 18 and probably 20 percent.

Music Trade Convention

Expects 4000 music dealers

NEW YORK — Approximately 140 exhibitors are already signed up to show their products at the 40th Annual Music Merchants Association Convention to be held at Hotel New Yorker, New York, on July 29 to Aug. 1.

W. A. Mennie, executive secretary of the association reports that more space will be utilized by the exhibitors than ever before. Seven floors, using over 200 rooms have been taken. Many radio and phonograph manufacturers will be represented with large space.

Distributor Meeting

ANN ARBOR—Wedemeter Radio Co., of this city and Battle Creek, Mich., held its third annual radioman's meeting and exhibition the latter part of March with an attendance of over 200 dealers and servicemen.

Speakers were Ted Rosser of P. R. Mallory & Co.; Carl Wesser of FM station W45D, Detroit; and John Rider, publisher.

The show had a total of 20 displays attended by 25 factory men, representing over 75 manufacturers.

O.K. Commercial Television

FCC sets July 1 for commercial service. Fix line and frame standards at 525 and 30. FM required for sound

WASHINGTON—The Federal Communications Commission, on May 2, authorized nationwide commercial television service beginning July 1.

The Commission has adopted, in substance, the standards as proposed by the National Television System Committee at the March 20 hearing.

The standards fix lines and frames at 525 and 30, respectively. Frequency modulation is required for the sound accompanying the pictures. Further developments are provided for, in the requirement that the standards be accorded six months of practical tests, at the conclusion of which further changes may be considered, with particular reference to color television.

The Commission set a requirement for a minimum broadcast program service of 15 hours weekly, also limited ownership to three stations under the same control.

On the plea that more than the seven lower channels in the present television band are needed for adequate development of commercial service, the Commission is making the 11 upper channels likewise available.

Cincinnati Assn. Stages

"Moving Day" Meeting

CINCINNATI—On March 24th just previous to Radio's Moving Day (Mar. 29), the Cincinnati Electrical Assn. held a meeting with 350 radiomen in attendance, to report on its activities on the new frequency shifts.

Robert Pepper, president of the Master Radio Servicemen's Assn. spoke on the many opportunities offered the dealers and servicemen who would be called in to make the changes. E. P. Zachman, of the Cincinnati Electrical Assn. said the reallocation provided the dealer with the opportunity to promote sales on the new sets. He explained that its main promotion on the subject was advertising copy in 3 metropolitan Cincinnati papers and in 34 suburban publications.

More Power Boosts

WASHINGTON — Station WLAC, Nashville, Tenn., moved from 1470 to 1510 kc. has received from the FCC an amended construction permit to boost power from 5 to 50 kw. Also stations WSAN, Allentown, Pa., and KCRC, Enid, Oklahoma, were granted power boosts but in a lesser degree. WSAN from 500 watts to 5 kw., and KCRC from 250 to 1000 watts. On April 16 station KTRH, Houston, Texas, received OK to boost power to 50 kw.

All-About Radio Interference

CHICAGO—The University of Illinois on May 10 held a Radio Interference Conference with engineers, manufacturers, and other radio representatives in attendance. Papers included Professor M. A. Faucett's discussion on case histories in interference trouble shooting, and public relations in connection with this work.



RCA MEETING—Fred D. Wilson, manager of Field Activities, draws complete attention with smiles from district sales managers at recent Camden meeting. From the left: E. J. Rising, San Francisco; George Malsed, Dallas; Richard Graver, Chicago; M. F. Blakeslee, New York; J. W. Cooke, Atlanta; Harold Winters, Kansas City; J. K. West, Cleveland; and William Kelley, district manager-at-large

FCC Issues Eight Broadcast Chain Regulations

Orders applying to new business effective May 4. Chains given 90 days to make existing contracts conform

WASHINGTON—Released to the press May 4 were new Federal Communications Commission regulations governing chain broadcasting, effective immediately insofar as new business is concerned. Networks were given 90 days in which to make existing contracts with individual stations conform. (Provisions of the order relating to station ownership may be further extended.)

Two of a total of eight points contained within the FCC's latest move involved broad issues, instructed that henceforward:

1. No single company may operate more than one network, and
2. No network may own more than one station in a given service area.

Remaining provisions involved contractual arrangements between networks and individual stations, said that:

3. Individual stations affiliated with any chain must be left free to accept programs from any other.
4. Stations must retain the right to reject network programs.
5. Chains must be permitted to send network programs to other stations within a given area where their regular affiliates reject programs.

6. Individual stations must be permitted to turn down network programs where they wish to carry their own local shows.

7. Stations must reserve the right to set their own rates for time sales to national advertisers, and

8. Contracts between networks and individual stations must not exceed one year.

Commissioners Case and Craven, disagreeing with the FCC's 8-point order, issued a minority report.

Hotpoint Refrigerator Week

CHICAGO—According to F. B. Williams, manager Hotpoint Refrigerator Division, the week of May 19 through May 31 has been designated as "National Hotpoint Refrigerator Week." During the campaign, every retailer who makes the refrigerator quota set by his distributor will be given special recognition by national headquarters in the form of a framed, engraved scroll.

H. G. Beebe Joins IRC

PHILADELPHIA — International Resistance Company of this city reports that Harold G. Beebe, with many years of trade and technical experience, has just joined the staff of its Industrial Division. He is to devote his efforts to the furtherance of IRC service to industrial and Government users of resistance devices.



JENSEN ENGINEERS HUDDLE—Jensen engineers examine the first production sample of their new UH-20 Hypex projector. Left to right: H. E. Allen, Karl Kramer, Dr. Vincent Salmon, and Hugh S. Knowles

Ohmite Ups Laird

CHICAGO—Roy S. Laird has just been appointed sales manager for the Ohmite Manufacturing Company of Chicago, Ill. Laird has been with the company 5 years as sales engineer and is well known in the jobbing and industrial fields.

He is an electrical engineering graduate of the University of Illinois. Operates amateur radio station W9CAZ.

SMASH HITS FOR LIGHTNING-FAST VACATION SELLING



NEW 3-WAY "Lightweight CHAMPION" PLUS SEN-TENNA

This camera-type portable is selling like wildfire! Amazing "SEN-TENNA" extra loop antenna permits reception anywhere—in cars, planes, trains—3-way operation—AC, DC, Battery. Model 247-P.

For record-breaking sales this summer—for bigger profits—stock these two immensely popular models. Both are top-notch values. Both feature stunning appearance, stepped-up performance, sensible prices. Order now in time for big-volume vacation sales!

SENTINEL RADIO CORPORATION
2020 Ridge Ave. Dept. RR-5 Evanston, Ill.

Sentinel

QUALITY RADIO SINCE 1920



The "CHAMPION" in any Class! WITH SEN-TENNA

A punch-packed performer that stands out against all competition. A real sales-getter! 6 Tube set with tuned R-F stage. 3-way operation—AC, DC, Battery. Stunning luggage case Model 262-P.

Get BETTER Phono-NEEDLES from GENERAL



Truetone

CUTTING NEEDLES Playback and Long-Playing Needles

MAKE sure of customers getting the true tonality that helps you sell recorders—use, sell and specify General Truetone Cutting Needles. Precision-made by the shadowgraph process and highly finished. Right for both professional and amateur recording. . . . Just as important to recorder sales is tone-production in playing back. Make sure of clarity and minimum surface noise with General Our Own steel playback needles. . . . For a trade-building "permanent-point" needle, sell General Futur-is-tic Long-Playing Needles. Play 2000-3000 sides. . . . General's complete phono-needle service includes a choice of 39 other types. All microscopically inspected and tested against service specifications. Attractive packaging. Write today for prices.

GENERAL PHONOGRAPH MFG. CO. Box 151 Putnam, Conn.



UNIVERSITY

HIGH EFFICIENCY is VITAL IN NATIONAL DEFENSE SOUND SYSTEMS

The UNIVERSITY Reflex Exponential Loud Speaker is recognized as the most efficient type of loud speaker in the world.

The UNIVERSITY Reflex Design has become accepted by the Sound Industry as the Standard Type of Loud Speaker for all Modern Sound Systems.

The UNIVERSITY Reflex Exponential Line offers you over 40 different models of Reflex High Efficiency Speakers.

Specify UNIVERSITY for National Defense Work.

UNIVERSITY LABORATORIES
195 Chrystie New York City

Television News

Field tests for color tele. Trade to preview large-screen production

NEW YORK—Columbia Broadcasting System revealed that initial steps have been taken for field tests on CBS color television. These proposed tests will determine the most practical design of home receivers for commercial production. Will also be used to determine technical values of the additional standards that color television will require.

A world's preview demonstration of RCA "Large-Screen Theatre" television will be held at New Yorker Theatre, New York City, May 9th, for leaders of movie and radio trades according to announcement by Thomas F. Joyce, vice-president of RCA Mfg. Co.

Highlighting the special program of events to be projected on the 15 by 20 foot movie screen will be a showing of the middleweight championship boxing bout between Billy Soose and Ken Overlin, televised direct from Madison Square Garden.

Philco To Hold East-West Conventions

PHILADELPHIA—Philco Radio & Television Corp. announces that they will hold two radio conventions. The first one, the Eastern Convention, at the Ambassador Hotel, Atlantic City, N. J., on May 29, 30 and 31. To be attended by roughly 850 distributors and representatives east of the Mississippi. The Western convention will be held at Del Monte, California on June 9, 10 and 11, where the new radio lines will be shown to 600 jobbers.

Russell Goes South

EVANSTON—George Russell desiring to locate permanently in the South, has resigned as general sales manager for Sentinel Radio Corp., and will continue his association with the company as a sales representative with headquarters at Birmingham, Alabama.

Gray Joins Hill

CHICAGO—Ralph M. Hill, manufacturer's representative, located at 1 N. Crawford Ave., Chicago, Ill., announces that Gordon E. Gray has joined his organization to aid in the sale of its electrical industrial lines. Gray entered sales engineering work in 1936 when he became associated with the Ohmite Mfg. Co. where Ralph Hill was general sales manager.

Briggs Takes Over Central States

CHICAGO—Joseph M. Muniz, general sales manager of Howard Radio Company announces that Howard C. Briggs one of the firm's vice-presidents, will take over the sale of receivers, replacement chassis and discs in the central states of Illinois, Indiana, Kentucky, Michigan, Ohio, Wisconsin, and city of St. Louis, Mo. He will be assisted by Russ Diethett.

Philco Speeds Promotion

PHILADELPHIA — Recognizing the fact that speed is an important keynote of modern business today, Philco has formulated and put into effect unique plans for announcing the new line of 1941 Philco-York air-conditioners to the public, according to an announcement by Harry Boyd Brown, manager of Philco's Air-Conditioning Division.

Within the next 60 days virtually every physician, lawyer, dentist, executive and professional person throughout the United States will receive a Western Union telegram outlining the salient innovations of the '41 Philco-York air-conditioners. "This communication effort," said Brown, "constitutes but a por-

tion of the gigantic direct mail campaign Philco is employing to tell the story to the public."

Janette Ups Robinson

CHICAGO—From Janette Manufacturing Co., of this city comes word that Max L. Robinson has been promoted to the position of sales manager. Robinson's experience dates back to 1915.

New S. M. For Standard Arcturus

NEWARK—Standard Arcturus Corp., 30 Court Street, Newark, N. J., announces the appointment of James R. Donahue to the position of sales manager. Donahue has been associated with the concern many years.



Things to Take Along to Make a Good Connection

Good radio service usually requires more than tube replacement, which any clerk might handle. As a professional serviceman—you can easily find the other troubles that interfere with good reception. A new antenna, a power line filter, hook-up wire, or one of the many other radio wire accessories may restore that "brand new" set condition. Take them along—give satisfaction to your customer—get the real profits your knowledge of this business deserves.

You'll find these fast selling items and many more in the Belden radio wiring line. Make a good connection—buy Belden from your jobber.

Belden Manufacturing Company
4697 W. Van Buren St., Chicago, Ill.

Belden Wire
FOR GOOD CONNECTIONS

Accessories shown include:
 - All-Wave Antenna Systems
 - Terminals
 - Extension Cord
 - Replacement Coils
 - Indoor Aerial Wire
 - Ground Clamps
 - Lightning Arresters
 - Power Line Filters
 - Hook-Up Wire

THE MODERN SPEEDY WAY TO SOLDER

ERSIN
MULTICORE
THE FINEST Solder IN THE WORLD



FILLED WITH
NON-CORROSIVE
ERSIN FLUX

PLEASE MAKE
A COMPARATIVE PRACTICAL
SOLDERING TEST—
PROVE TO YOURSELF
THE SUPERIORITY OF
"ERSIN" CORED
"MULTICORE"

It's British!

THREE CORE SOLDER

3 INDEPENDENT CORES PROVIDE 3 FLUX CONTINUITY 3
MANUFACTURERS
DISTRIBUTORS — JOBBERS

Write to
M. H. KELSEY
6604 BUCKINGHAM PLACE
CINCINNATI, OHIO

for
SAMPLES, PRICES and DESCRIPTIVE
BOOKLET.

**RETAILERS — SERVICEMEN
CONTACT YOUR JOBBER**

Sole Manufacturers

MULTICORE SOLDERS LIMITED
BUSH HOUSE, LONDON, W.C. 2, ENGLAND

**BE SURE
BUY
"MULTICORE"**

Trade Show Sales Program

Sales Manager's committee arrange meeting schedule

CHICAGO—A committee of the Sales Managers Club, working in conjunction with the Trade Show officials and the Exhibitors, formulated the following program of manufacturer's sales meetings to be held at the 1941 Chicago Trade Show. This new arrangement will rectify confusion and conflicting sales meetings experienced in past years.

| | | |
|------------------|---------------|-------------------|
| Aerovox | Mon, June 9 | 7:00 pm-12: mid. |
| Alpha | Tues, June 10 | 9:00 am-11:00 am |
| Amer. Radio Hard | Mon, June 9 | 9:30 am-11:30 am |
| Amphenol | Sun, June 8 | 10:00 am-12: mid. |
| Amperite | Sun, June 8 | 12: n- 3:00 pm |
| Audio Devices | Mon, June 9 | 8:00 pm-10:00 pm |
| Bogen | Mon, June 9 | 9:30 am-12:30 pm |
| Cinaudagraph | Mon, June 9 | 3:30 pm- 4:30 pm |
| Cornell Dubilier | Mon, June 9 | 7:00 pm-10:00 pm |
| Crowe | Mon, June 9 | 3:00 pm- 6:00 pm |
| Dejur | Mon, June 9 | 12: n- 3:00 pm |
| Electrovox | Mon, June 9 | 3:00 pm- 6:00 pm |
| Hallcrafters | Mon, June 9 | 3:30 pm- 6:00 pm |
| Hickok | Mon, June 9 | 9:30 am-12:30 pm |
| Hytron | Wed, June 11 | 7:00 pm-10:00 pm |
| Insuline Corp. | Sun, June 8 | 12: n 3:00 pm |
| Int. Resistance | Mon, June 9 | 8:00 am- 1:00 pm |
| Meissner | Mon, June 9 | 9:00 am- 2:00 pm |
| Millen | Mon, June 9 | 9:30 am-11:30 am |
| Million | Mon, June 9 | 7:00 pm- 9:00 pm |
| Operadio | Mon, June 9 | 3:30 pm- 6:00 pm |
| Park Metalware | Sun, June 8 | 9:00 am-12: n |
| Permo | Tues, June 10 | 10:30 am- 2:00 pm |
| Presto | Tues, June 10 | 10:00 am-12: n |
| Quam | Mon, June 9 | 1:00 pm- 3:00 pm |
| Radiart | Sun, June 8 | 1:00 pm- 3:00 pm |
| Radio City Prod | Wed, June 11 | 6:30 pm-11:00 pm |
| Raytheon | Mon, June 9 | 10:00 am- 2:00 pm |
| Recordisc | Sun, June 8 | 12:30 pm- 3:00 pm |
| Schott | Mon, June 9 | 8:30 am- 9:30 am |
| Shure | Sat, June 7 | 9:00 am- 1:00 pm |
| Sprague | Sun, June 8 | 3:00 pm- 6:00 pm |
| Stancor | Sun, June 8 | 3:00 pm- 9:00 pm |
| Vaco | Tues, June 10 | 9:00 am-12: n |
| Ward | Mon, June 9 | 6:30 pm-10:00 pm |
| Webster-Chicago | Mon, June 9 | 5:00 pm-10:00 pm |
| Wirt | Mon, June 9 | 2:00 pm- 3:30 pm |
| Worner | Mon, June 9 | 9:30 am-11:30 am |

Convention Special

NEW YORK—The 1941 "Radio Industries Special" train, sponsored by the "Representatives" for Chicago Trade Show will leave Grand Central station, New York, at 4:20 p.m., Sunday, June 8, and will arrive in Chicago on Monday, June 9, according to Perry Saftler who is in charge of arrangements.

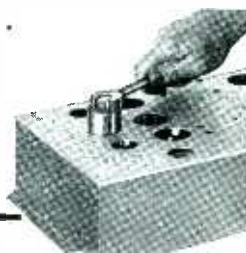
Picking up a car from Boston, carrying more representatives to the Show, the Special will stop at Schenectady, Utica, Syracuse, Rochester, and Buffalo. Anyone interested in joining the party should contact Perry Saftler, 53 Park Place, New York City. Phone Rector 2-5334.

Distribution News

TURNER—Verner O. Jensen of General Sales Co., 2607 Second Ave., Seattle, Washington has just been appointed the Turner Company representative for the northwest. Territory will include Idaho, Montana, Oregon, Washington, Alaska, Alberta, Canada and Vancouver, B. C. Also just appointed is Herb Erickson, 14 Biltmore Ave., Asheville, N. C., for the southeast. He will serve Alabama, Florida, Georgia, North and South Carolina, and Tennessee.

HOW TO CUT HOLES IN RADIO CHASSIS THE EASY WAY

NO FILING . . .
REAMING . . .
OR TEDIOUS
DRILLING



With the Greenlee Radio Chassis Punch, the radio worker can save hours of work when cutting holes for sockets, plugs, connectors, meters, and other receptacles in radio chassis. A cap screw is inserted in a small drilled hole, and the punch is easily forced into the die by a few turns of the screw with an ordinary wrench. These punches are available for cutting 3/4 to 2 1/4-inch holes. A Greenlee Knockout Cutter is also available for cutting holes up to 3 1/2-inch size. Send for new circular S-114 on Radio Chassis Punches.

GREENLEE TOOL CO.
1708 Columbia Ave. Rockford, Ill.

A "LAB" to fit your pocket



Readrite
RANGER

MODEL
739

\$9.90

Dealer Net Price

A.C. D.C. VOLT-OHM-MILLIAMMETER

Pocket Volt - Ohm - Milliammeter with Selector Switch. Molded Case. . . . Precision 3-Inch Meter with 2 Genuine Sapphire Jewel Bearings. AC and DC Volts 0-15-150-750-1500; DC MA. 0-1.15-15-150; High and Low Ohm Scales. . . . Dealer Net Price, including all accessories, \$9.90
MODEL 738 . . . DC Pocket Volt-Ohm-Milliammeter. Dealer Net Price. . . . \$8.25

WRITE FOR CATALOG

SECTION 520

COLLEGE DRIVE

READRITE METER WORKS, Bluffton, Ohio

★ RAULAND ★

AT BAT FOR UNCLE SAM!

The engineering skill, the experience, the manufacturing resources of RAULAND—pioneer builder of quality products in the field of Sound and Radio Communications—are today devoted largely to an important phase of the national defense program. Today, RAULAND equipment is doing dependable duty in the service of the armed forces of America.

RAULAND TOMORROW—

Once the present emergency is over, all of RAULAND'S rich experience (twenty years of it) and resources will be yours—to help you fight and win tomorrow's big commercial battles in the fields of sound amplification and radio communications. RAULAND will be ready to "go to bat" for you!

In the field of amplifier design and manufacture, RAULAND stands preminent. Even if we can not 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
3335 Belmont Ave. Chicago, Illinois

Auto-Radio

Condensers

● In keeping with the greatly increased sensitivity of present-day auto-radio receivers, Aerovox now offers a far wider choice of auto-radio condensers and noise suppressors.

Yes sir, in the new 1941 catalog you'll find just the type you need for every phase of auto-radio noise suppression, properly designed and built to withstand the intense vibration, heat and severest humidity conditions associated with such equipment.

Ask for CATALOG . . .

Your local Aerovox jobber will gladly give you a copy of our 1941 Edition Catalog. Or write us direct. Also ask for a free subscription to the monthly Aerovox Research Worker.



MOTOROLA—Appoints *McDonald Auto Supply Co.*, 2nd and Polk Sts., Amarillo, Texas, its distributor for both home and car radios. Will cover western Texas.

CROSLEY—*Louis O. Bowman*, 301 North First St., Richmond, Va., is the new distributor for this area, according to recent announcement by Robert I. Petrie, Crosley's general sales manager.

Dealer Helps

WINDOW DISPLAY—"Spend Your Leisure Listening" is the theme of latest spring and summer tube display released



by *Hygrade Sylvania Corporation*. Distribution through jobbers. The display, 21 inches wide by 43 inches high, is lithographed in 8 colors.

FOLDERS—*Howard Radio Co.*, announces two new folders, No. 105 lists new line of replacement chassis, frequency modulation units and home recorders. No. 106 covers metal and paper base recording discs and needles. Available to servicemen and dealers without charge.

LIFE-SIZE DISPLAYS—New *Admiral* "girl" display over 5 feet in height, and designed to hold actual portable



radio as illustrated. Comes with sporty—"man" display also promoting 3 way portables. Order by set No. D-67. Free through your Admiral distributor.

CATALOG—*The Radiart Corp.*, Cleveland, Ohio, announces a new 24-page vibrator replacement guide. Features complete listings and easy reference with cross indexing.

Ready Now
THE *only* INSTRUMENT
OF ITS KIND

NEW RCP ELECTRONIC MULTITESTER

MODEL
661



4 COMPLETE INSTRUMENTS
- 26 RANGES - IN 1

- Vacuum Tube DC Voltmeter
- Vacuum Tube AC Voltmeter
- Vacuum Tube Ohmmeter
- Vacuum Tube Capacitometer

Here, in one electronic instrument, are more features than have ever been available in any vacuum tube volt-ohmmeter!

\$33.50

Make complete checking tests on AM, FM and Television receivers under actual operating conditions without disturbing the circuit constants! RCP Model 661 has all the newest needed ranges, including capacity measurements from .00003 mfd. to 1000 mfd. DC voltmeter impedance 160 megohms on high ranges, 16 megohms on low ranges. AC voltmeter input capacity is only .0005 mfd. Look at the extra ranges of this great new RCP achievement!

- DC VOLTS—0.6/30/150/500 at sensitivity of 16,000,000 ohms input impedance.
- DC VOLTS—0-1500/6000 at 160,000,000 ohms input impedance.
- AC VOLTS—0.6/30/150/500/1500/6000 at .0005 mfd. input capacity.
- OHMS—0-1000/10,000/100,000/1 meg/10 meg/100 meg/1000 meg.
- CAPACITY—0-.001/.01/.1/1/10/100/1000.

IMPORTANT! Meter completely protected—
from burn-out through wrong connection or overload.

RCP
dependable
TEST
instruments

RADIO CITY

PRODUCTS COMPANY, INC.

88 PARK PLACE • NEW YORK, N. Y.

Audio Silencer

Automatic variation by the signal in the gain of r-f and i-f stages by changing the bias of the tubes in those stages has become standard practice.

However the avc voltage developed by a diode detector may also be advantageously applied to other stages in a receiver.

Shown in the large diagram the voltage from the avc line is applied to the grid of the triode portion of the first 75 tube. When the station carrier is tuned off resonance or is interrupted no avc voltage develops and the triode has practically zero bias.

Under this condition the d.c. plate resistance of the tube is low and plate current high and therefore a considerable voltage drop occurs in the 470M ohm resistor in the plate circuit. The plate terminal is of course more negative than the supply terminal and this voltage is applied between the grid and cathode of the triode section of a second 75 tube.

This second 75 is connected as an audio amplifier and the high bias voltage prevents amplification of inter-channel transients or noise and thus silences the receiver.

When a carrier is received the resulting avc voltage is fed to the grid of the first triode control tube and the d.c. plate resistance rises, lower current flows in the plate circuit, and much less voltage drop occurs in the plate resistor.

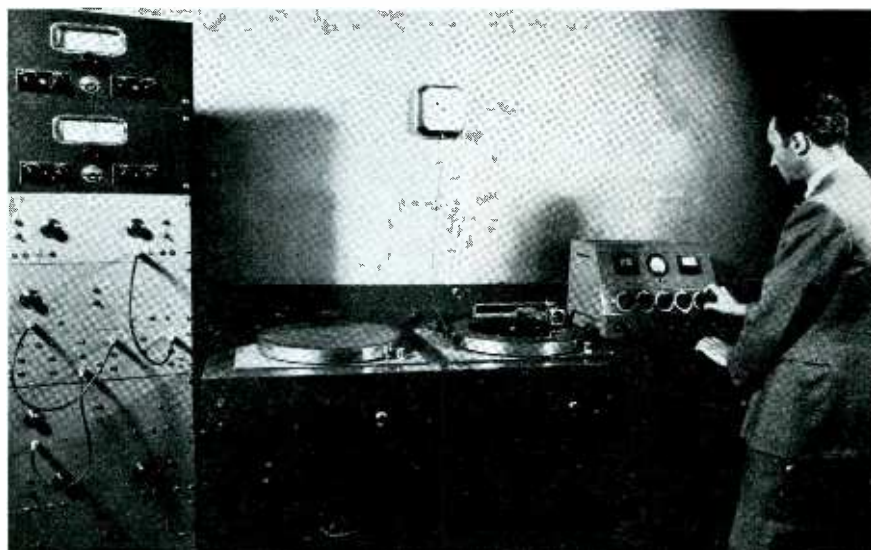
Since this is the bias voltage on the second triode the tube amplifies the signal when the bias voltage reaches a normal value.

Called a "Q" relay circuit by Philco, the constants chosen permit the circuit to operate on a carrier field strength of about five microvolts in the antenna. In remote sections where this signal strength does not prevail a slight additional sensitivity can be obtained with this squelch circuit cut out. A switch across the plate resistor of the control tube permits such operation.

The a-f triode then receives no bias from the silencer circuit but the 15 megohm resistor in the grid circuit provides a small amount of bias through flow of stray grid current.

Although the cathode of the audio stage is necessarily at a fairly high positive potential in respect to chassis this is actually the negative point for voltage reference in the audio stage.

Encountered in model 822-PV, the circuit is employed in an auto radio



Successful RECORDING Service

equally good prospects for the higher-priced receivers and excellent users of records.

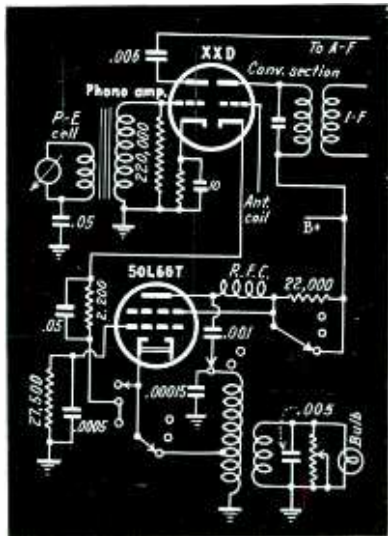
Elaborating further, Sinclair thinks that his recording success is largely due to promotion and to the store's location. (Store is adjacent to Fifth Avenue.) In his words: "Ours is a silk stocking trade," meaning customers with money to spend. When such prospects are properly introduced to recording they practically sell themselves on the service.

Marconi carries on promotion for its new studio in several ways, using window displays, advertising, and other forms. Most successful is printed invitations to selected customers for free sample recording. A card states, "If presented before a certain date, this will entitle bearer to one musical recording, gratis." Such offers are made to limited groups.

MARCONI BROTHERS, swank New York retailer, decided about a year ago that the store could logically open a recording studio and thereby expand its radio and record service. The new venture proved a success from the beginning.

In manager Roy Sinclair's opinion, such a studio has a definite place in the average radio-music shop. Exclusive of its own profit possibilities, he now knows such a studio is an excellent builder of store traffic. For the most part, recording customers are musicians, students, and others who know good quality when they hear it. Customers like these are





ping resistor in the plate circuit of the 50L6GT tube to allow the full voltage from a 50Y6GT rectifier to be applied to the oscillator.

The remaining triode portion of the XXD tube is utilized as the photo cell amplifier, its audio output coupled to the normal audio section of the receiver.

Grid Diode

When record players are connected to double diode triodes it is sometimes

found that a signal from the radio frequency circuits of the receiver will still come through and interfere with the record reproduction.

This condition may result from capacity coupling between the diode plate and the triode portion of the tube or from coupling of these elements through the electron stream from the cathode. In some cases the effect may only be found when the a-f stage is operated at high gain but in many cases the setting of the volume control does not affect the interference.

Separate contacts can be used on the changeover switch to cut off voltage to the i-f stages or otherwise render the r-f portion of the receiver inoperative and some manufacturers employ this method.

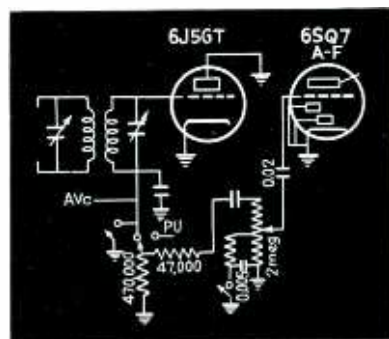
The same results can be achieved by separating the diode and triode altogether and a circuit of such an arrangement is shown. A 6J5GT tube is connected with the grid and cathode operating as a diode. The plate is not needed and may even help the diode action when grounded.

The developed avc voltage from the diode is utilized for the preceding stages and the audio signal fed to the triode section of a 6SQ7 tube. The diodes of this tube are not now needed and are grounded.

When phonograph operation is desired the switch disconnects the de-

tector diode load resistor, grounds the diode return, and feeds the signal from the pickup to the audio stage. The same volume control as used on radio signals can now be used for phono volume.

The additional switch shown in the diagram of this portion of the G-E models 1106 and 1108 is a section of the tone control switch that shorts out the bass compensation circuit in one position. Other positions of the switch connect small condensers in the plate circuit of the audio stage for attenuation of highs.



Higher Power

Adding a tube to a single ended output stage to permit parallel or push-pull operation of the stage is one way

SPRAGUE and NATIONAL DEFENSE



ATOM
MINIATURE
DRY
ELECTROLYTICS



KOOLOHM
INSULATED
RESISTORS



TC
PAPER
TUBULARS



TEST EQUIPMENT

National defense needs come first!

Sprague is putting them first — fully and wholeheartedly. One of our two big factories in North Adams, Mass., is now devoted almost solely to defense work.

Meanwhile, our other factory is turning out more Sprague Condensers, Koolohm Resistors and Test Equipment for the Radio trade than ever before. Deliveries are prompt. Full Sprague quality is being rigidly maintained. Development work continues as in the past.

Thus, thanks to Sprague's size and unique facilities, we are able to put defense first—and still not neglect our long-time-friends of the Radio profession.

SPRAGUE PRODUCTS COMPANY
North Adams, Mass.



Send for your
**FREE COPY
NOW!**

New catalog of the most complete and modern line of sound equipment is yours for the asking. It lists and illustrates

- Portable and Fixed Systems
- Centralized Radio Systems
- Paging and Factory Call Systems
- Parts and Accessories

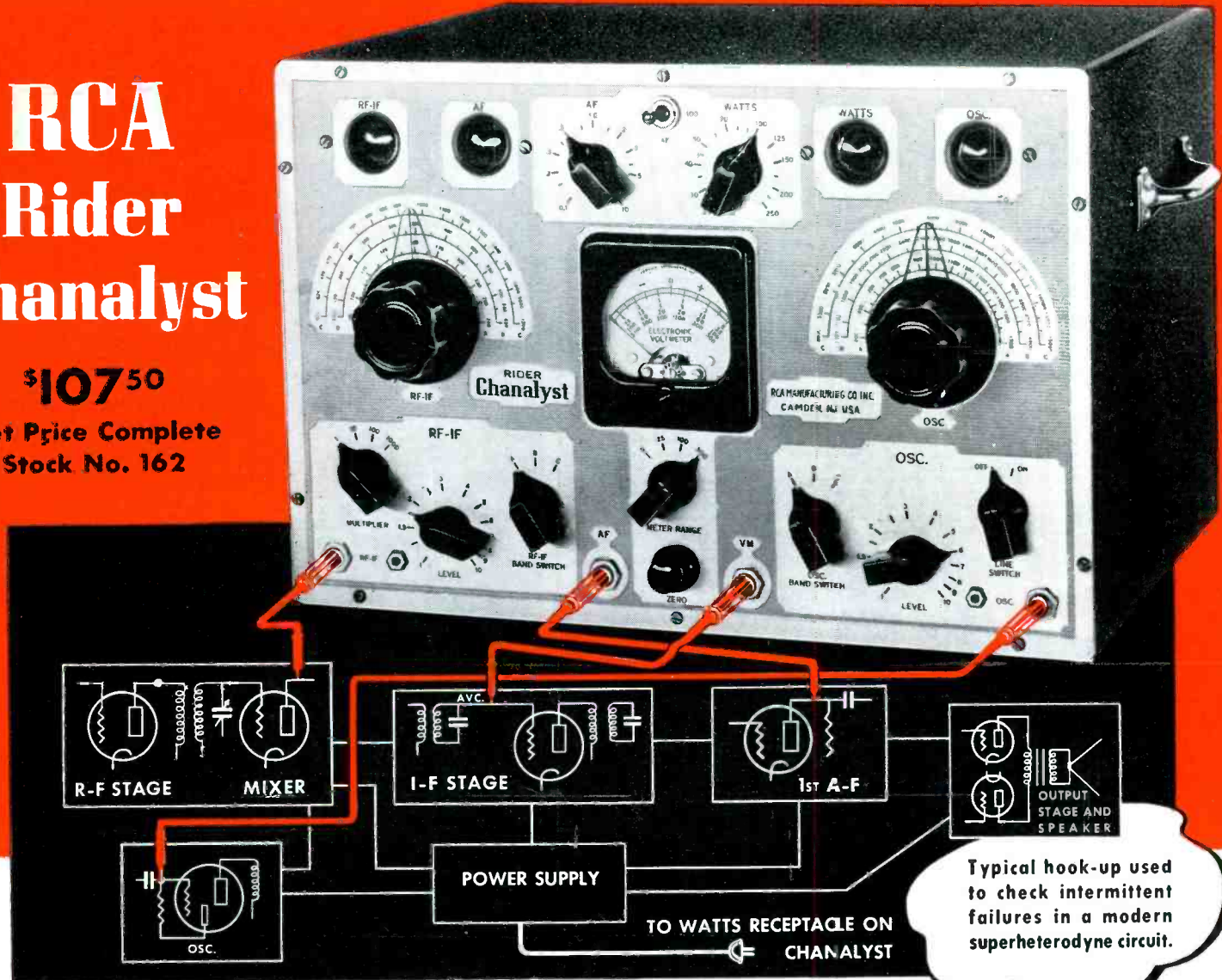
Get your free copy—WRITE—now.

ERWOOD
SOUND EQUIPMENT CO.
221 W. Erie St. Chicago, Ill.

RCA Rider Chanalyst

\$107⁵⁰

Net Price Complete
Stock No. 162



Typical hook-up used to check intermittent failures in a modern superheterodyne circuit.

PAYS FOR ITSELF BY TIME SAVED

Just a glance at the schematics here discloses how easy it is to use the RCA-Rider Chanalyst, and how reliably it will quickly disclose the source of the most baffling intermittent trouble. But forget technicalities for a moment and look at the RCA-Rider Chanalyst from a strictly dollars-and-cents business standpoint. Let's compare what you pay for it against what it stands to pay back to you.

At a recent meeting, a group of servicemen (who did not use the Chanalyst) admitted that they averaged somewhere between 3 and 5 "tough" repair jobs a week—sets that took them two hours or more to repair. Let's take the low figure, and do our calculating on the basis of only 3 of these "2 hour" jobs a week.

Careful tests with the Chanalyst show that an experienced operator can handle even the most difficult intermittent "short" or "open" jobs in 30 minutes. Again to be conservative, however, let's make it an hour—although,

actually, not one tough job in ten would take this long, once you had familiarized yourself with the tremendous time-saving possibilities of the Chanalyst.

Thus, a Chanalyst in your shop can mean a saving of at least a full hour on every one of those difficult "2 hour" jobs—or a total saving of 3 hours a week. That's 156 hours per year! At your normal rate for service . . . just figure how quickly the Chanalyst will pay for itself.

And remember, this only counts in the savings on difficult jobs. All that it saves you on the less complicated jobs is pure "gravy".

Small wonder, then, that more than 4,000 Chanalysts have been sold. Small wonder that it has proved the one absolutely indispensable piece of test equipment to so many leading service dealers. The Chanalyst not only helps them do better, more accurate work. It actually "puts more hours into their day"—hours for which a profitable service charge can be made!



Test Equipment

RCA MANUFACTURING CO., Inc., Camden, N. J. • A Service of the Radio Corporation of America
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Compare FIDELITONE FLOATING POINT with any long life phonograph needle on the market—give it a good test yourself—see the floating point construction that filters record scratch, maintains the tone quality and protects the records for more than 1000 plays—3 to 6 months average use. Then you will see why FIDELITONE floating point is daily replacing the ordinary steel needle and has become the best selling long-life needle. Ask your local jobber or write direct for the New FIDELITONE Counter Sales Card—contains 12 FIDELITONE Floating Point Needles—you invest \$3.25—you make \$2.75. Put this counter sales card to work for you now! Build your needle sales with FIDELITONE floating point, the nationally advertised phonograph needle.

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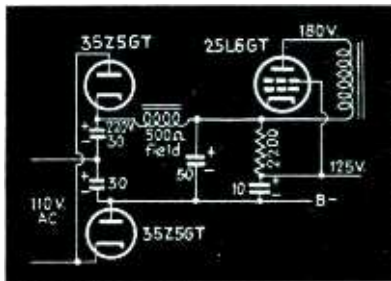
Radio Retailing—May '41

of obtaining higher audio power for certain requirements. Another way to do the job is to increase the d.c. voltages on the power tube.

Given a transformerless circuit this can be accomplished by use of a voltage doubler as shown in the diagram. Here two 35Z5GT tubes receive the input voltage from the power line.

When the upper feed line in the diagram is positive current flows through the lower tube and the 30 mfd condenser and charges the condenser. When the reverse condition occurs on the other half of the cycle the power line lead to the cathode is positive and no current can then flow through this tube. The plate of the other tube however is also positive and can now operate and permit current flow to charge the upper condenser.

Since the two condensers are connected in series and are being charged sixty times a second the useful voltage delivered to the speaker field



choke and filter condenser is equal to twice the power line voltage.

Applied to the 25L6GT output tube the 180 volts from the filter permits greater output to be developed. Normal maximum output of this tube at 110 volt operation is 2.2 watts but a maximum output rating of 5 watts is given by RCA for this circuit in V-101.

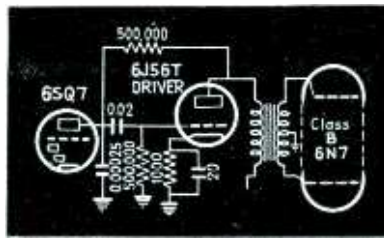
The screen grid of the output tube is maintained at 125 volts through the 2200 ohm dropping resistor and this voltage is also applied to the other tubes in the receiver. The resistor is included in the ballast resistor envelope but is not electrically connected to the portion used in the filament circuit.

Feedback B Supply

Inverse feedback is encountered in many of the current circuits and many methods are used to accomplish the desired action.

One of the simplest methods is to feedback a portion of the signal from an audio stage to the plate circuit of a preceding a-f stage where the feedback voltage will be opposite in phase.

The diagram shows a circuit that does this through a half megohm resistor from the plate of a 6J5GT driver to the plate of a 6SQ7 tube. However the circuit shows no additional plate load or supply resistor and apparently the resistor of the feed-



back circuit also acts as the plate load, the dc plate voltage for the tube being obtained from the plate circuit of the driver stage. This driver stage feeds a 6N7 output tube in the Truetone D-1192, the triode sections operating as a class B amplifier.

New Tubes

45Z3—Miniature, half-wave high vacuum rectifier of the heater-cathode type. Heater consumes but 75 milliamperes at 45 volts. A dc output current of 65 milliamperes permit its operation to supply both filament and plate circuits of Personal type portables. RCA.

3Q4—Miniature, power amplifier pentode that can develop 270 milliwatts at seven percent distortion with 90 volts on plate and screen. A center tap on the filament permits a series filament circuit with other miniature tubes. RCA.

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Eliminate Inserts and Filing!

Shaft position in knob requiring $\frac{1}{32}$ " flat.

Shaft position in knob requiring $\frac{1}{16}$ " flat.

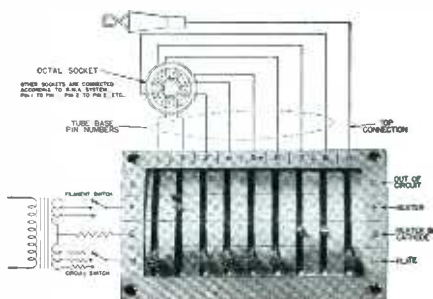
Shaft positioned for set-screw knob.

Only edges of shaft filed for odd types.

Now—in the new double-flatted Type "A" Tap-in Shaft for Type D Universal Controls—you have IRC's answer to simplified fitting for all knobs. Here's the end to bothersome metal inserts and shaft filing

for all $\frac{1}{32}$ " and $\frac{1}{16}$ " standard flats. Even the occasional odd type knob requires little more than a brush of your file on the edges of the shaft to make it fit. Moreover, Type "A" Shafts are easier to cut to length. See them today at your jobbers... and, at the same time, be sure to ask about the IRC Master Radiotrician's Control Cabinet. Stocked with only 18 Type D Controls, 6 switches and 5 extra Tap-in Shafts of special design, it covers 60% to 75% of all control replacement needs.

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401 North Broad St. Philadelphia, Pa.



New **TRIPOLET** LEVER-SWITCHING

Combining simplicity of operation with absolute flexibility, Triplet's new lever switching permits individual control for each tube element—yet test procedure is simple and quick. The switch setting shown above will permit tests of 45 commonly used different type tubes without change of position of the levers. Many tubes require only two lever switch settings—more than half, only three settings.

Model 1620 also features four additional "quick change" non-obsolescent features, including the above switching section. **RED•DOT** Lifetime Guaranteed Instrument panel may be returned for replacement or repairs, in case of accidental damage . . . Speed Roll Chart complete with mechanism can be replaced, in the case of new factory releases, by removing only four screws from front of panel . . . New socket panel to meet future radical tube changes which present spare socket cannot accommodate will be available at nominal charge upon return of old panel . . . Switching section with power supply also can be replaced should unanticipated changes make it necessary. Gracefully proportioned wood case, natural finish. Beautiful two-tone Brown-tan sloping panel; polished metal chrome trim with inlaid color. Model 1620 Counter Tube Tester . . . Dealer Net Price . . . \$41.60.

Write for Catalog-Section 205 Harmon Ave.

TRIPLET ELECTRICAL INSTRUMENT CO.
Bluffton, Ohio

How TUBES Measure AC

VACUUM TUBE VOLTMETERS may measure intangible signal voltage in several ways

By **JOHN M. BORST**

MEASUREMENT of signal voltages in r-f, i-f and audio stages requires an instrument that is independent of frequency and whose reading will indicate the rms value, the average value, or the peak value of the voltage under test.

In addition it should draw little or no current from the circuit under test and the calibration should not be affected by varying conditions of operation.

Power Detector Use

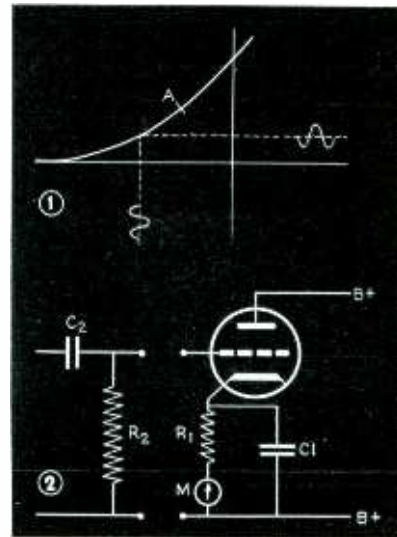
The simplest type of vacuum tube voltmeter that measures rms values is a triode tube in a detector circuit. The grid-leak detector is not desirable because it draws current and the grid-leak and condenser combination has frequency discrimination. The biased detector (power detector) is usually employed and may have battery bias.

It can be shown mathematically that such a voltmeter will show deflections proportional to the rms value of distorted waves if the part of the characteristic employed follows a square law. That is, as in Figure 1, when one does not employ more of the characteristic than to point A.

It is to be noted that it would be possible to put in some more signal before the grid goes positive but then a part of the straight section of the characteristic is employed. The deflection of the plate milliammeter is then no longer proportional to the rms value but gradually approaches the average value as the signal becomes larger. Of course, the correct rms value for a sine wave can be put on the meter but this means that there will be an error when a distorted wave is measured.

Distorted Waves "Turnover"

Such an instrument which is half-way between rms and average value meter will exhibit an effect known as "turnover" on distorted waves. That is, when the input leads are reversed one obtains another reading. It is then usually satisfactory to take the average of the two readings. A true rms meter or a true average value meter



FIGS. 1 and 2—Operating portion of tube curve and self bias circuit

would not show "turnover" on any wave and the hybrid discussed above has turnover only on distorted waves, not on a sine wave.

The voltmeter of Figure 2, uses a bias resistor that causes the bias to increase when the input signal becomes larger. This permits a longer scale than the fixed-bias variety. This type is known as the "reflex type;" its range is also adjustable by means of the resistor size. When this resistor becomes large the circuit behaves practically like an "average value" meter.

In order to keep any dc potentials from reaching the grid, one employs the resistor and condenser R_2 and C_2 which must be chosen so that they do not appreciably change the frequency characteristic. This can be done by making C_2 large enough so as to have a reactance which is small compared to R_2 (one tenth or less) at the lowest frequency to be measured.

The same type of bucking circuits employed in dc instruments and shown in the April issue of *Radio Retailing* are also used for ac instruments.

Frequency Discrimination

If the calibration is to be equally valid for a range of frequencies, the

input-impedance should not vary over the frequency range and the by-passing in the plate circuit should be equally effective.

There is no tube which has a constant input-impedance for all frequencies and consequently the best that can be done is to eliminate all the other effects and to choose the best tube available. If one does not wish to go to the ultra-high region, most average triodes can be used. All stray capacity due to wiring should be eliminated. This is best done if the tube is at the end of a probe.

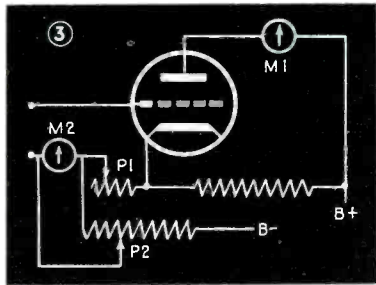


FIG. 3—Slide-back type of VTVM

The matter of by-passing in the plate circuit is also important. If the vacuum-tube voltmeter is to be used at radio-frequencies, a relatively small condenser will do. But then one must

add another and larger condenser if the device is to be calibrated or used at 60 cycles or any other low frequency.

Peak Voltmeters

The instruments illustrated in Figures 3 and 4 are peak voltmeters; they measure the voltage of one half of the wave. Therefore, if the wave is non-symmetrical the reading will be different when the leads are reversed because it will then measure the negative peaks. Both of these readings are correct.

The circuit of Figure 3 is known as the "slide-back voltmeter." With

the input terminals closed, the potentiometer P_1 is first adjusted to plate current cut-off. It is usually easier to adjust for a small but definite amount of plate current. When the signal is applied, the second potentiometer is adjusted for the same plate current. Then the meter M_2 indicates the desired peak voltage.

This type of meter has the advantage that it does not require calibration.

There are several possible variations of this scheme. For instance, one might employ a neon tube connected from the "high" input terminal to B+ and proceed as before, adjust-

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that it became your trusted helper on every service job. The instruments illustrated cover a wide range of individual needs, but they have two great attributes in common—the life-time accuracy that is based squarely on the superlative Simpson Meter, and the precision craftsmanship that is reflected in every detail of assembly.

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MODEL 215—Incorporates all essential ranges for modern servicing. Offers large, 4 1/2 inch, easy to read dial, at low price. Five A.C. and D.C. voltage ranges; five decibel ranges; 0-10-100-500 milliamperes; 0-250 microamps; 0-4000-400,000 ohms; 0-4 meg-ohms. Dealers net price... **\$22.85**

MODEL 260—The outstanding value in a high sensitivity set 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. Also 3 milliamperage and 1 microampere range. Dealers net price **\$27.50**



MODEL 240—A remarkable value in a pocket size (5 1/4 x 2 7/8 x 1 3/4") 3000 volt, self-contained tester. Four A.C. and five D.C. voltage ranges at 1000 ohms per volt; 0-15, 150, 750 milliamperes; 0-3000, 300,000 ohms. Dealers net price... **\$14.75**

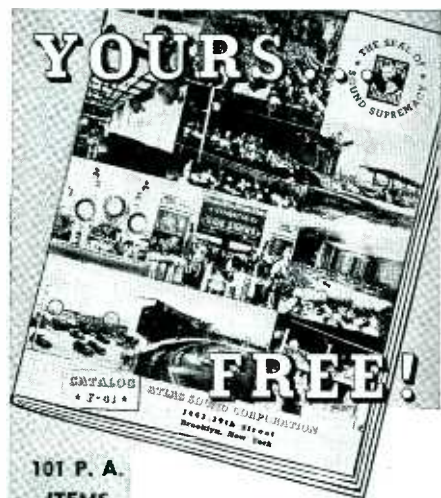
MODEL 230—Smallest A.C.-D.C. instrument on the market, yet has ranges of 0-10, 250, 1000 volts A.C.; 0-10, 50, 250, 100 volts D.C.; 0-10, 50, 250 D.C. milliamperes; 0-1000, 100,000 ohms. Dealers net price... **\$14.25**



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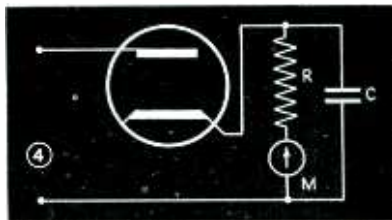


FIG. 4—A half-wave rectifier may also be used

ing each time for the voltage where the tube just extinguishes.

The circuit of Figure 4 is a simple half-wave rectifier which will cause the condenser C to be charged to the peak voltage if the condenser is large enough so that the discharge in between two successive cycles is small. At very high frequencies, 20 mc. and up, the input impedance of this type becomes lower than that of a triode and it is extensively used.

Instead of a meter in series with R, the rectified voltage across R might be measured with any of the dc meters described, or it might be applied to a "magic eye" tube. In the last case it is necessary to make a potentiometer out of R and to calibrate it in terms of volts.

Sensitivity can be increased if the detector is preceded by an amplifier or followed by a direct-coupled amplifier. First type must have flat response.

TRICKS of the TRADE

AC-DC MODELS

Modulation hum . . . if hum decreases when lights in the house are turned on replace the bypass condenser on the line or from chassis to line. Values from .1 to .25 mfd are usually best.

FARNSWORTH AC-70

Dead, burned cathode resistor of output tube . . . replace shorted .005 mfd condenser connected from plate of 6V6 to cathode and connect to screen instead of cathode. If greater high frequency response is desired use a .002 mfd condenser.

PHILCO 40-124

Intermittent cutout and hum . . . primary leads of first i-f transformer may contact a secondary lead.

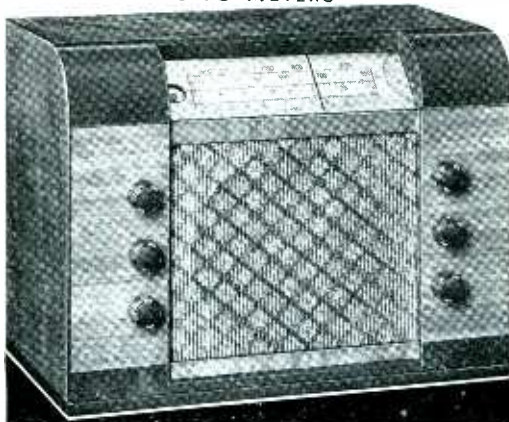
PHILCO 40-525

Oscillation . . . remove cathode connection of 7C7 r-f tube from common connection of other tubes and connect directly to chassis.

PHILCO 40-748

Weak on low frequency end of short wave band . . . replace 47M ohm

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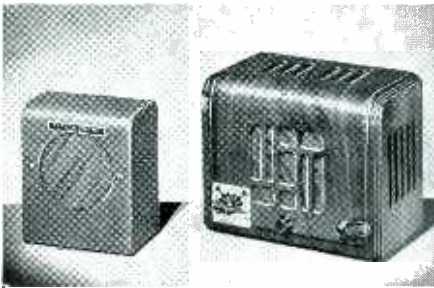
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resistor, number 33 in schematic, in oscillator circuit with 100M ohms.

PHILCO 40-81T

Oscillates . . . dress lead running to grid of 1A7G away from tube.

PHILCO 40-165

Hum . . . connect another .05 condenser in parallel with field coil.

PHILCO 38-33

Inoperative . . . bare wire leading to tuning condenser wiper spring shorts to stator plates. Wire is under tuning condenser section and leads through hole in chassis.

PHILCO 37-38 2 Volt Model

Low reception and buzz . . . two sections of electrolytic block open. Replace entire block.

PHILCO 38-38

Weak reception . . . if shorting out avc restores normal reception and a new 1C7G fails to make any change, replace with a 1D7G tube.

RCA X-60

Low sensitivity on short waves . . . twist two insulated wires together to form a small condenser and connect to supply capacity coupling between the oscillator and mixer circuits. About 3 mmf is required.

RCA 18T

Dead on pushbuttons, ok on dial . . . replace 33 M ohm oscillator grid leak with 50 M ohm resistor.

RCA U46

Fades after several minutes of playing . . . check .0025 mfd condenser, C31 in schematic, connected from high end of volume control to accessory tone control switch, for partial open.

RCA C-11-1

Loud crackles . . . check detector coil for high resistance caused by corrosion.

RCA 111-K

Avc not working . . . leakage between primary and secondary of second i-f transformer will cause a positive voltage to be applied on the avc diode, stopping the avc action.

WESTINGHOUSE 366

Excessive rocking of dial pointer on automatic tuning . . . remove seal on flywheel mounted on motor shaft and tighten screw under seal. Reseal with household cement. Clean with carbon tetrachloride the selector contacts at rear of tuning gang.

Weak at low end of dial . . . check for open coil in plate of 6K7 r-f stage.

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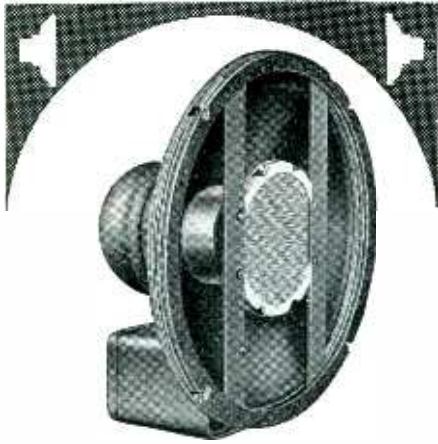
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LETTERS

What Price Franchise?

I am enclosing a copy of an advertisement (*Ed. Note: Department store copy offering eight models of a prominent brand at "½ Price, No Down-Payment"*) that to my estimation is one of the worst forms killing the radio industry.

I wonder just how long the auto industry could exist with this type of dealing. Makes it almost impossible for a dealer to carry an adequate stock.

The manufacturers are to blame in as much as they crowd and high pressure the dealer to buy so much to obtain a franchise. Just what does a franchise amount to?

DRAIN, OREGON RADIO JACK

We Wonder Why, Too

Enclosed are four clippings from a local newspaper. (*Ed. Note: First, in classified newspaper columns, offered pushbutton change without mentioning charge; second, specifically stated there would be no charge; third, offered the adjustment free and added free tube-testing in the home; and the fourth, offered free adjustment, free tube-testing, and a free radio log.*)

These clippings represent the attempts of two radio dealers to outdo each other in giving service away. Why, why, why?

HILLSBORO, OHIO ARTHUR HEDGES
Hedges Electric Supply Co.

We Are, Indeed, Interested

You may be interested to know that I liked page 42 in your March issue very much. ("Why You Should Buy Radio Tubes in a Radio Store").

It was used in my window, for the message it conveys to pedestrian readers is a good one.

If you'll use such a page every month, with a similarly constructive message, I'll put them all in my window.

LOS ANGELES J. C. GREEN
Radio Sales & Service

You Bet We Do

Do you buy feature articles about radio dealer selling methods, written by the dealers themselves as a result of their own experience?

I have used several ideas with considerable success and have often wondered whether or not I should write them up for you, and how fussy you were about just the way they were written.

CHICAGO R. S. CORRELL

The ideas themselves, rather than the precise English in which they are described, determine acceptance or rejection, plus the availability of pictures. We don't mind re-writing somewhat, if that's what worries you.

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Although Radio & Television Retailing takes every precaution to insure accuracy, we cannot assume responsibility for an occasional change or omission in the above index.

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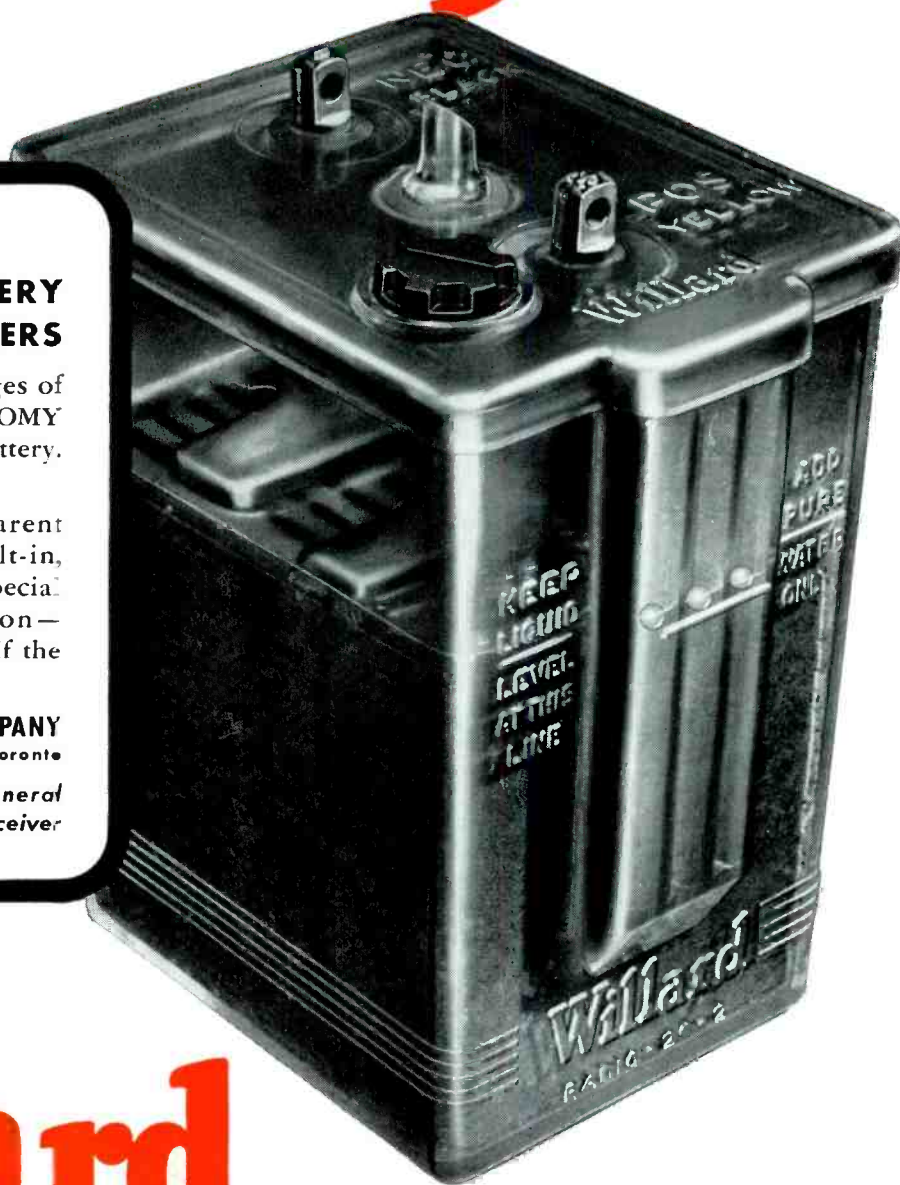
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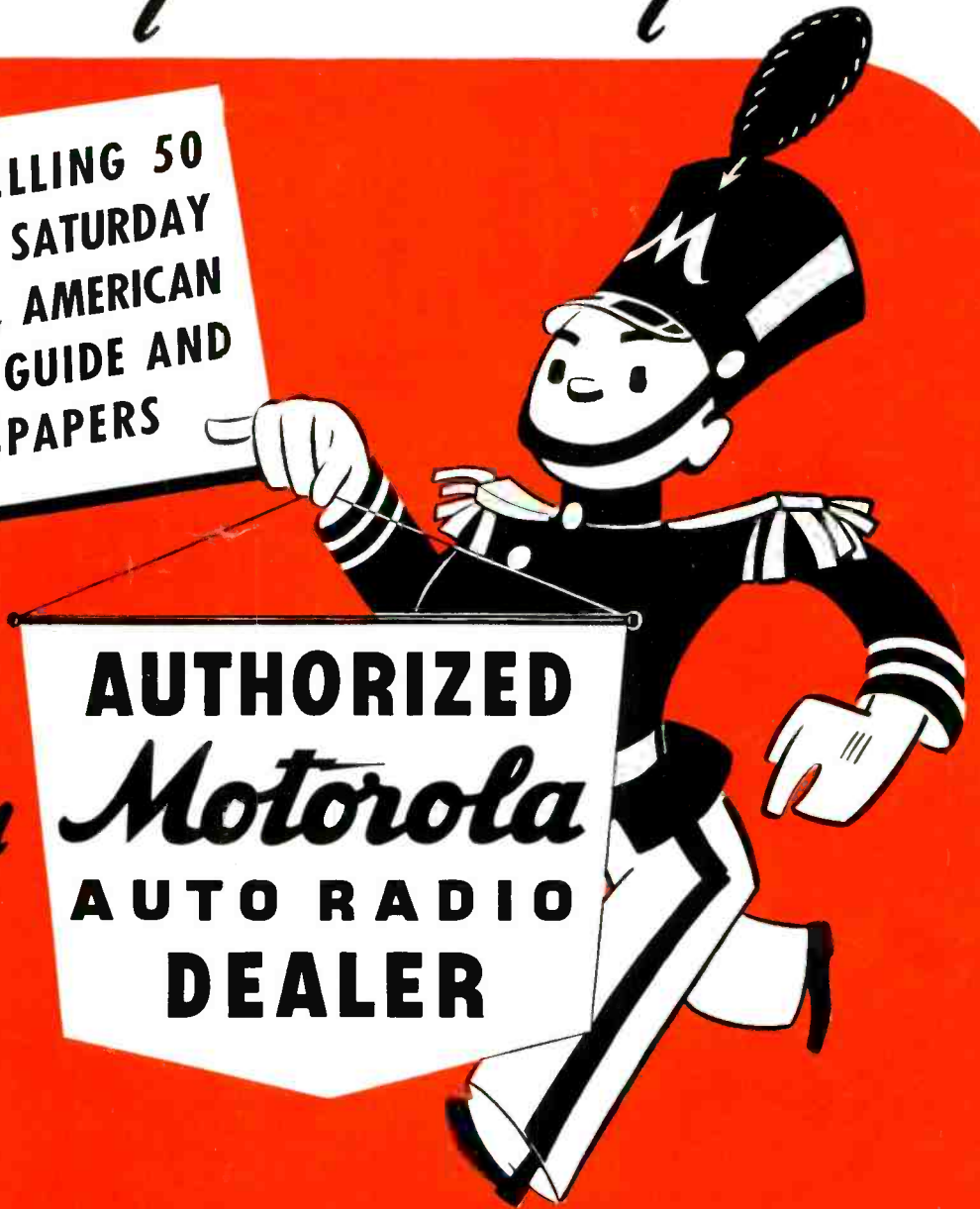
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