

RADIO

NOVEMBER • 1940

*and
Television*

RETAILING



RADIO'S HISTORIC LADDER
PICTURES OF THE PAST
PUBLIC SERVICE RECORD

THE DISCOUNT RACKET
RADIO AND DEFENSE
F-M DEALER SURVEY

PERFECT XMAS GIFTS
SELLING PERIOD MODELS
FIGURES FOR COMPARISON

CIRCUITS OF THE MONTH
WHY RADIOS BREAK DOWN
RECORD-PLAYER HOOKUPS

BROADCASTING Celebrates 20th Birthday

A
McGraw-Hill Publication
Price 25c

**Give Yourself
a Break —**

Only

***FP** (Fabricated Plate)

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

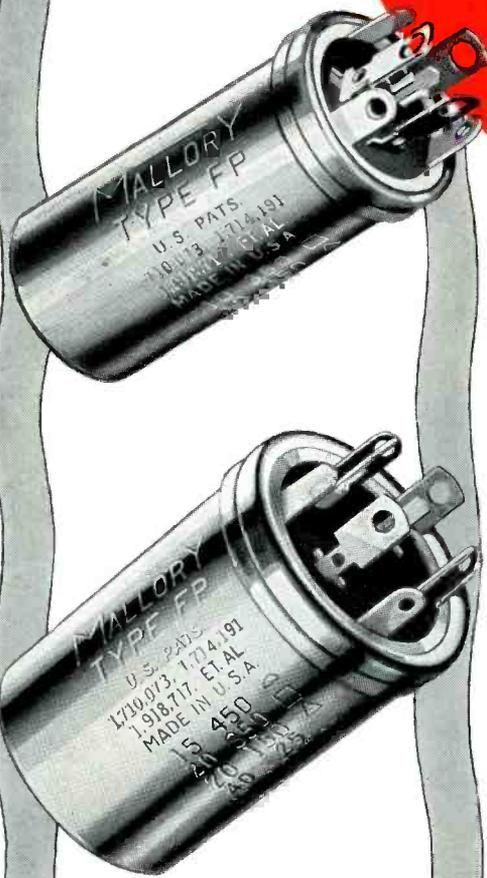
CONDENSERS

made by

P. R. MALLORY & CO., Inc.

MALLORY

**Offer 2000 to 1 Odds
Against Comebacks**



**Not etched construction*

FP Condensers, made by Mallory, give you the greatest insurance against comebacks ever offered. Here's proof!

In accurately checking the field returns from 1,000,000 FP Condensers purchased by representative radio manufacturers, it was found that only 512 were returned as defective. That's only 5/100th of 1%! It means dollars and cents to you for every Mallory-made FP Replacement Condenser is of exactly the same high quality.

Get all the facts on FP Condensers today. Find out how to identify the genuine. Get all the facts, too, on the complete coverage of the full line of Mallory Replacement Condensers. Your Mallory Distributor has the information . . . and the stock with which to serve you.

P. R. MALLORY & CO., Inc.

INDIANAPOLIS INDIANA

Cable Address—PELMALLO

Use

P. R. MALLORY & CO., Inc.

MALLORY

**APPROVED
PRECISION PRODUCTS**

Include

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

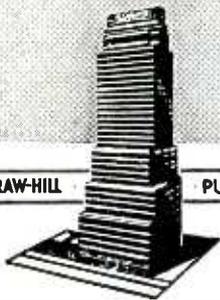
RADIO

and Television RETAILING

A McGRAW-HILL

PUBLICATION

NOVEMBER 1940



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SALES STATIC . . . Can't you fix it so it'll work without a condenser?

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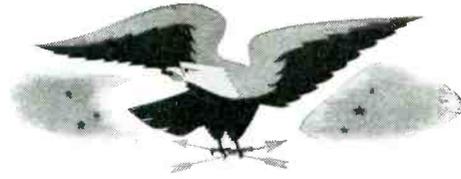
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Radio Enlists for National Defense

THE RADIO INDUSTRY has answered the call to national defense with an "all out" acceleration of creative activities. In research, in operation, in production—from blueprint to wavelength—the watchword is Service for the Needs of Uncle Sam!

For radio today has attained front-line rank in the national defense program. Its magic voice keeps our citizens informed, unites our nation as a vast community for free discussion. It links together the 21 republics of our hemisphere in bonds of friendship and mutual interest. It enables us to communicate around the world, to reach out to ships at sea, and to guide our aviators through fog and night.

Whole-hearted Response

As a leader in radio research, as the only company that makes and does everything in radio, the Radio Corporation of America is proud of its call to duty. It eagerly enlists its facilities and personnel in the service of the American people.

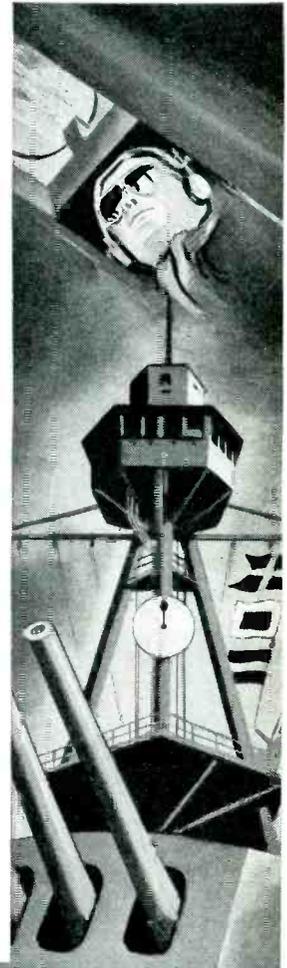
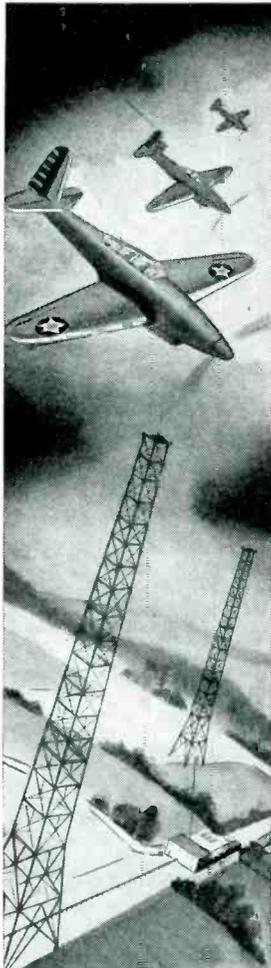
The emergency finds RCA fully prepared. Months ago the "must" orders went to every subsidiary of the company, with the result that at the present

moment it is making daily contributions through its great laboratories, ceaselessly active in research—through its manufacturing company, in the production of radio apparatus—through communications, flashing message traffic around the earth—through radiomarine, in all-round communication service at sea—and through the National Broadcasting Company, in nationwide, world-wide broadcasting. To fill the need for men with technical skill, RCA Institutes is training radio operators.

Accepting the Challenge

Using all the resources at its command, the Radio Corporation of America is meeting every demand for service—with expanded facilities, increased production, with smooth functioning speed.

In assuming its vital share in national defense, RCA realizes its opportunity to help preserve the unity and integrity of our national life. Each of its thousands of employees pledges his energies and enthusiasm to producing all needed equipment on schedule, to making America's radio communication system the most efficient on earth.



RADIO CORPORATION OF AMERICA
RADIO CITY • NEW YORK

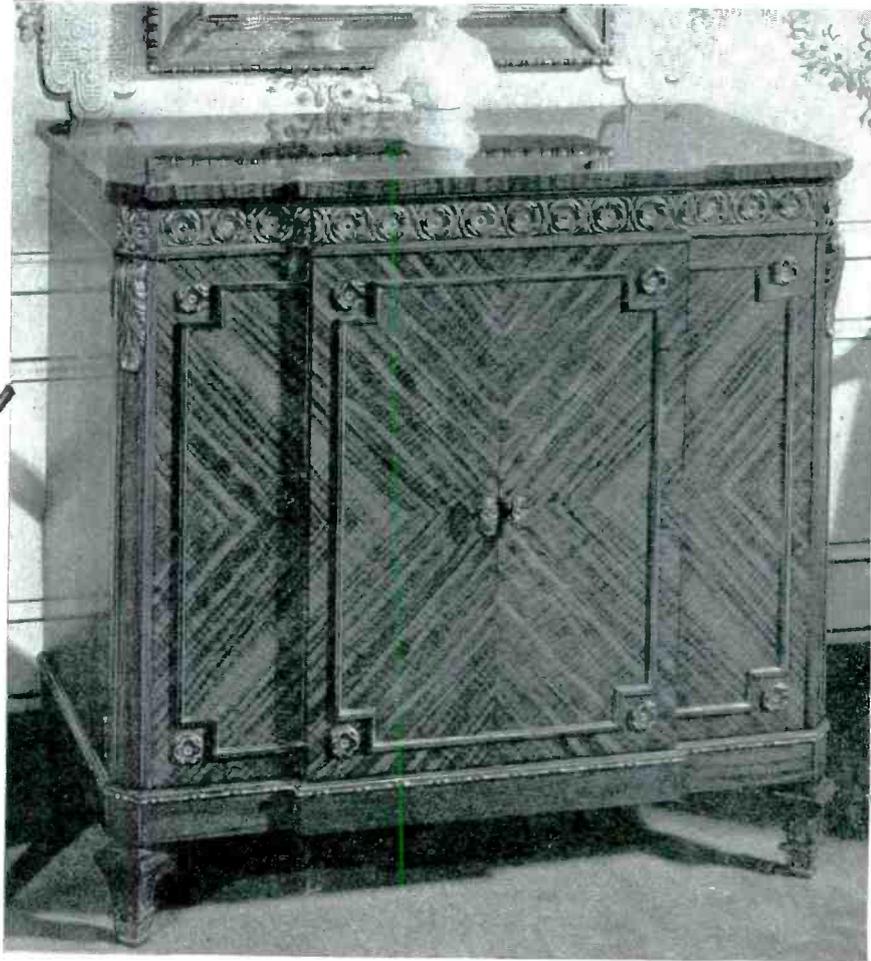
RCA Manufacturing Co., Inc.
National Broadcasting Company

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

RCA Laboratories
RCA Institutes, Inc.



Antique **R**eproductions



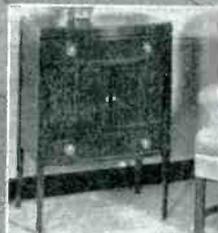
UPS DOLLAR VOLUME AND PROFITS

The Brunswick Radio Panatrope (radio phonograph combination with automatic record changer) is a salesmaking line of destiny.

Dealers, North, South, West and East report its phenomenal sales rejuvenation upon their radio operation. Dealers agree the charm is that every model (9 in all, short and sweet) is an authentic copy, *not a period adaptation.*

If your department has a place in the sun, it will grow taller with a 'mass-class' line-up of Brunswicks. They assure intact-profits and sensible retail lists to meet America's major market.

Ask us about the Exclusive Dealer Franchise. It's worth its weight in silver dollars.



Brunswick **RADIO PANATROPE**

America's Only Complete Line of Period Reproductions

Write: H. L. Weisburgh, Brunswick Division, Mersman Bros. Corp. 206 Lexington Avenue, New York



UTAH K15P
L15P

TOPS for auditoriums or theatres

For absolute "tops" in sound reproduction with cone type speakers, use the Utah K15P or L15P. They are unsurpassed for speech and music in public address applications.

These outstanding representatives of the well-known Utah speaker line have *extremely high power handling capacity*. They have an efficiency of 4 DB above any other Utah speaker ever produced. Owing to their high efficiency, they're ideal for "woofer" applications in two-channel systems.

Check these features: Specially treated for atmospheric conditions—2-inch 8-ohm voice coil over

½ inch deep—spider of exclusive Utah design and material permits release of back pressure found in ordinary construction—greatly improved bass response—exceptional brilliance in the voice range—magnet weight 15 lb. and 23 lb. List price \$79.50 and \$104.50 (subject to standard trade discounts).

Write for full details about the complete line of Utah speakers. UTAH RADIO PRODUCTS COMPANY, 810 Orleans Street, Chicago, Illinois. Canadian Office: 560 King Street, West, Toronto. In the Argentine: Ucoa Radio Products Company, S. R. L. Buenos Aires. Cable Address: Utaradio, Chicago.



S P E A K E R S

VIBRATORS • TRANSFORMERS • UTAH-CARTER PARTS

RCA Victor Celebrates Broadcasting's
20TH Birthday with Sensational
ANNIVERSARY OFFER!

on purchase of new, 1941

RCA Victrola

with exclusive **TONE GUARD**

Two years ago, you went to town with the RCA Victrola 40th Anniversary offer! Ever since, you've been asking for another like it . . . and *here it is!*

But public interest in phonograph-radios today is even **GREAT**ER! Business is even **BETTER** — and new, 1941 RCA Victrola models are greater values than ever before! . . . Make this mental note now: "Get the details of RCA Victrola giant trade-in offer from distributor today!"

Trademarks "RCA Victor" and "Victrola" Reg. U. S. Pat. Off. by RCA Manufacturing Co., Inc.



Easily, Effectively
Demonstrated!

RCA VICTROLA TONE GUARD

Scientifically shaped slots suppress unwanted mechanical noises. Play a record with the lid of the instrument open. Close the lid — immediately mechanical noises are sealed in silence.



RCA VICTROLA V-205

Feature-packed to *sell!* 9 tubes!
Gentle-Action, Automatic Record
Changer! 12" Dynamic Speaker!
Exclusive RCA Victor Tone Guard!
Exclusive New Overseas Dial! Sta-
bilized Electric Tuning! 12 Watts
Output! Magic Loop Antenna!



20 years ago, radio studios looked like sketch above. Today RCA Bldg. in Radio City, N.Y., symbolizes radio's growth. Most radio stations are RCA equipped, from microphone to transmitter.



RCA Victrola

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



★ **THERE'S FAR MORE TO THE FARNSWORTH LINE THAN THE CAPEHART-FARNSWORTH RECORD CHANGER!**

TRUE — the Capehart-Farnsworth changer is the hottest selling feature in combinations today. But Farnsworth gives you a lot more.

A tremendous range of up-to-the-minute styles! FARNSWORTH spells VALUE. Competitive from every angle!

Sell Farnsworth

★ **FARNSWORTH GIVES YOU EVERYTHING**

FARNSWORTH offers the broadest line in the industry! Chairside combinations — superb cabinet phonograph-radios and radios! Gifts that put other presents in the shade! You can sell these hot models F-A-S-T—at Christmas and throughout the year. Radios for bedrooms, for children going back to school, for family group gifts.

Give yourself a Christmas present with FARNSWORTH's wide margin of profit! Get the facts—today. FARNSWORTH TELEVISION & RADIO CORP., FORT WAYNE, INDIANA.

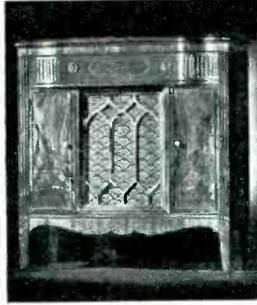
★ **TYPICAL FARNSWORTH VALUE LEADERS!**



BK-112 (Jefferson). This splendid example of fine period designing is tops in the Farnsworth line! In mahogany or walnut. A knockout for the carriage trade!



BK-89 (Regency). Here is a great big package for the money! Features front opening doors — a clinching sales point to a tremendous number of prospective customers!



BK-87 (Stratford). This impressive, fast-moving combination has great appeal for those who want period furniture. Available in either mahogany or walnut.



BK-85 (Modern). This combination sells itself on sight! Conservatively modern, classically simple. Also available in blond. A sales-producing bargain!



BK-73 (Classic). The hottest chairside model the industry has produced! Walnut or blond. Automatic record changer. Looks to customers like a swell buy — and is!



BC-82. This lowboy console is a marvelous performer in a distinctive cabinet.



BT-70. Beautifully styled, this table model looks like a small console. Real quality for little money.



BT-61. A superb instrument for both tone and cabinetwork. Compact and modern. At a "take-away" price!



BT-55. This handsome, ultra-modern table model is really smart styling! A honey for the money. Excellent tone.



BT-71. A distinguished model, unusual in its period trim, and richly grained woods. At a price that says "Buy me."

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

Postal Telegraph

Steps up Service to Millions...

Raytheon engineers make an important contribution in overcoming delays caused by adverse weather conditions.

Postal Telegraph's headquarters station in Chicago. One of the largest operating rooms in the world. 28 RAYTHEON units installed here.

By Using

RAYTHEON TUBES

How to save seconds of time! How to counteract interruptions caused by snow, sleet, hail, electric storms and aurora borealis! How to improve service in every way! These are problems constantly before Postal Telegraph executives. Much time and money have been invested to solve them.

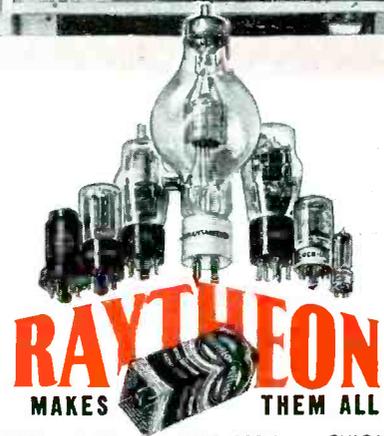
In cooperation with them, RAYTHEON engineers developed equipment, incorporating a Postal Telegraph invention, a revolutionary relay unit, in which RAYTHEON tubes play a vital part. These tubes are in constant service, 24 hours day in and day out. With their use, fading electric impulses are picked up, amplified, and messages speeded through faster than was ever before possible where weather is a factor.

Hundreds of these units have already been installed in Postal Telegraph offices throughout its nationwide system and millions of patrons are benefited thereby. During the severe electrical disturbance caused by aurora borealis on Easter Sunday, 1940, while ordinary circuits were disrupted the circuits equipped with RAYTHEON apparatus were unaffected. Thus Postal Telegraph rendered excellent service during a period in which other services were interrupted.

The same engineering genius which helped Postal Telegraph solve one of its baffling problems goes into every tube in the RAYTHEON LINE. That's why RAYTHEONS give such superb service wherever installed. And that's why RAYTHEON service-men and dealers everywhere are building goodwill, bigger business, and bigger tube profits by making replacements with RAYTHEONS.

These RAYTHEON advantages are now open to you . . . benefits you may enjoy with smaller stock of tubes, because you need only one line. For RAYTHEON makes them all . . . and they cost no more! Your RAYTHEON Distributor has an unusual tube deal for you. See him without delay.

One of the RAYTHEON units now standard equipment in hundreds of Postal Telegraph Stations. Note the 4 RAYTHEON Tubes



RAYTHEON

MAKES THEM ALL

NEWTON, MASS. NEW YORK CHICAGO
SAN FRANCISCO ATLANTA

WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS

COMING SOON

The

All-American REFRIGERATOR

for EVERY AMERICAN HOME

featuring

*All-American Quality
in Every Price Group*

This year, you are going to look carefully at products, profits and promotions because you know that comparing price tags gets you exactly nowhere.

And, you're going to look carefully at distribution, too, because you know that a well-financed, sales-minded distributor can be a tremendous factor in the success of the dealers he serves.

Of the Norge 1941 product, we can say briefly that it is All-American quality throughout; that it is beautifully styled; that it incorporates an outstanding innovation which dramatically exploits Norge patents and exclusive features; that it includes today's highly-perfected version of the original Norge Rolator Compressor with a vital refinement which we have never licensed to any other manufacturer.

As for profits, any energetic business man of good repute can get into the Norge profit picture and stay there with a minimum investment. Promotions and advertising are focused heavily upon the things which dealers have told us they prefer.

Our distributors, as the accompanying roster shows, are the best in the country—men who are well and widely known throughout the industry, business leaders in the territories they serve. They work constantly and successfully to increase volume and profits for thousands of progressive Norge dealers.

Through the distributor in your territory, Norge offers you an opportunity to make money all the year 'round, selling the only complete family of appliances produced by a major manufacturer. He invites your inquiry.

NORGE *for* '41

NORGE *for '41*

This brilliant new *All-American* Refrigerator will soon be available through these Norge Distributors

ALBANY.....B. H. SPINNEY COMPANY
351 Central Avenue

ATLANTA.....HOPKINS EQUIPMENT CO., INC.
418 W. Peachtree St., N. W.

BALTIMORE.....SOUTHERN WHOLESALERS, INC.
305 S. Pulaski St.

BIRMINGHAM.....BIRMINGHAM ELECTRIC BATTERY CO.
Avenue B and 23rd St., S.

BOSTON.....NORGE SALES CORPORATION
714 Beacon St.

BUFFALO.....BERGMAN NORGE COMPANY
101 Eagle St.

BILLINGS.....MIDLAND IMPLEMENT COMPANY, INC.
2303 Montana Ave.

CHARLESTON.....CHARLESTON ELECTRICAL SUPPLY CO., INC.
914 Kanawha St.

CHATTANOOGA.....CLEMONS BROTHERS COMPANY
West 8th St. & Chestnut

CHARLOTTE.....SOUTHERN BEARINGS & PARTS CO., INC.
315 N. College St.

CHICAGO.....SAMPSON ELECTRIC COMPANY
3501 S. Michigan Ave.

CINCINNATI.....THE COMPTON-KNODEL DISTRIBUTING CO.
309 John St.

CLEVELAND.....THE ARNOLD WHOLESALE CORPORATION
5209 Detroit Avenue

COLUMBUS.....MUTUAL DISTRIBUTORS, INC.
229 W. Broad St.

DALLAS.....TEXAS NORGE SALES COMPANY
2105 Commerce St.

DENVER.....THE AUTO EQUIPMENT COMPANY
14th and Lawrence Sts.

DES MOINES.....SIDLES COMPANY
118 Tenth Street

DETROIT.....RADIO DISTRIBUTING COMPANY
100 Selden Avenue

EL CENTRO.....IMPERIAL HARDWARE COMPANY, INC.

EL PASO.....POPULAR DRY GOODS COMPANY, INC.
San Antonio, Mesa and Texas Sts.

HOUSTON.....AUTOMATIC SALES CORPORATION
325 M & M Bldg.

INDIANAPOLIS.....THE GIBSON COMPANY
433 N. Capitol

JACKSONVILLE.....CAIN & BULTMAN, INC.
505 W. Adams St.

KANSAS CITY.....MAYFLOWER SALES COMPANY
2600 Grand Avenue

LITTLE ROCK.....WHOLESALE APPLIANCES, INC.
201 Rock St.

LOS ANGELES.....LEO J. MEYBERG COMPANY, INC.
2027 S. Figueroa St.

LOUISVILLE.....THE SUTCLIFFE COMPANY, INC.
225 S. Fourth St.

MEMPHIS.....LYLE-CRENSHAW, INC.
181 Madison

MILWAUKEE.....ROTH APPLIANCE DISTRIBUTORS, INC.
647 West Virginia St.

MINNEAPOLIS.....REINHARD BROS. CO., INC.
11 S. Ninth St.

NASHVILLE.....BRAID ELECTRIC COMPANY, INC.
109 Eleventh Ave. S.

NEW ORLEANS.....NORGE PRODUCTS COMPANY, INC.
4640 S. Carrollton St.

NEWARK.....NORGE SALES COMPANY OF NEW JERSEY
180 Central Avenue

NEW YORK.....WARREN NORGE COMPANY, INC.
315 Fourth Avenue

OKLAHOMA CITY.....WILLIAM MEE CO., INC.
120 E. Grand Ave.

OMAHA.....SIDLES COMPANY
505 S. 19th Street

PHILADELPHIA.....TRILLING & MONTAGUE
Walnut at 24th Sts.

PHOENIX.....BARROWS FURNITURE COMPANY
38 S. First St.

PITTSBURGH.....LUDWIG HOMMEL & COMPANY
600 Second Ave.

PORTLAND, ME......THE FARRAR-BROWN COMPANY, INC.
492 Forest Avenue

PORTLAND, ORE......F. B. CONNELLY COMPANY
1233 N. W. 12th Ave.

RICHMOND.....BENJ. T. CRUMP COMPANY, INC.
1310 E. Franklin St.

ROANOKE.....THURMAN & BOONE CO., INC.
401 S. Jefferson

ROCHESTER.....ERSKINE-HEALY, INC.
420 Saint Paul Street

SALT LAKE CITY.....THE SALT LAKE HARDWARE CO.

ST. LOUIS.....MAYFLOWER SALES COMPANY, INC.
816 N. 11th St.

SAN ANTONIO.....NORGE SOUTHWEST SALES CO.
1201 E. Houston St.

SAN FRANCISCO.....LEO J. MEYBERG COMPANY
70 Tenth St.

SEATTLE.....F. B. CONNELLY COMPANY
1015 Republican St.

SIOUX CITY.....A. Y. McDONALD MFG. CO.
2 W. Third St.

SPOKANE.....COLUMBIA ELECTRIC & MFG. CO.
123 S. Wall St.

SPRINGFIELD, MASS......B. H. SPINNEY COMPANY
62 Hampden St.

SPRINGFIELD, MO......TURNER DEPARTMENT STORE CO.
308-12 S. Campbell St.

SYRACUSE.....B. H. SPINNEY COMPANY
1133 W. Genesee St.

TOLEDO.....V. J. McGRANAHAN DISTRIBUTING CO.
1502 Madison Ave.

WASHINGTON.....SOUTHERN WHOLESALERS INC.
1519 L St. N. W.

IN CANADA: CANADIAN RADIO CORP., LTD., TORONTO 2, CANADA

In addition to well-balanced domestic distribution, Norge products have wide acceptance abroad through 150 Distributors in 24 foreign lands.

NORGE DIVISION BORG-WARNER CORPORATION, DETROIT, MICHIGAN

SEE NORGE BEFORE YOU BUY

NORGE ROLLATOR REFRIGERATION • GAS AND ELECTRIC RANGES • WASHERS • HOME HEATERS • COMMERCIAL REFRIGERATION

G-E RADIOS

for Christmas Selling



No question about it! G-E Golden Tone Radios *have what it takes* to round up sales.

Plenty of eye and ear appeal! Glorious tone—brilliant styling—new and exclusive plus-value features!

And—best of all!—they're priced right down where sales are thickest!

Feature G-E Golden Tone Radios prominently—on your sales floor, in your windows—*right through the holiday season*. They'll help you make this a Merry Christmas.

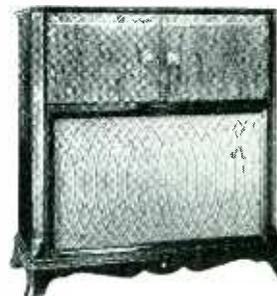
20th ANNIVERSARY RADIO INDUSTRY

1921 - 1941



MODEL J-805

A beautiful Console in Two-tone American Walnut and Stripe Sapeli Wood Veneers. Equipped with *Dual Beam-a-Scopes* for finer foreign and domestic reception.



MODEL J-718

A fast-moving automatic Radio-Phonograph Combination. Exquisite Cabinet in Figured Mahogany Veneers.



MODEL JB-410

The Hit Of The Christmas Season! New Camera-type Carryabout designed to resemble a small camera. Longer Battery Life. Case is simulated leather with dark maroon plastic trim.



MODEL J-501

A low priced super-heterodyne in smartly styled Plastic Cabinet. Two colors—Ivory and Mottled Mahogany.



MODEL J-629

The Complete Musical Instrument! Radio Receiver, Record Player and Home Recorder—all in one! New this season!

Radio and Television Department, Bridgeport, Conn.



GENERAL ELECTRIC

RADIO and Television RETAILING

NOVEMBER 1940



NOVEMBER 11-30 brackets a nationwide celebration of radio broadcasting's 20th Anniversary, sponsored in the two major branches of this "twin industry" by the NAB and the RMA.

Radio's roots are deeper in the past than 1920 but it was in this year that a combination of circumstances raised the art from a mere hobby for a handful of experimenters and a point-to-point communication business to the status of a full-fledged public service.

Stations came on the air with the first widely publicized regular broadcasts. Support by advertisers was initially solicited. Transmission of Harding-Cox election returns and other nationally important events secured the first widespread publicity.

"Wireless" had become "Radio."

Today, radio broadcasts reach 100 million potential American listeners. Broadcasting has become the most potent single medium for the dispensing of news, entertainment and education.

More than 30,000 men and women are at present employed by broadcasters, not to mention artists. Over 150,000 people are engaged in the manufacture of transmitting and receiving equipment. Another 150,000 may be found behind desks and counters and shelves among the wholesale and retail radio establishments of the nation. And at least 150,000 salesmen and servicemen are employed by these firms.

The industry's combined sales volume, too, easily puts it in the front ranks of American business.

Radio is no longer an "infant" industry.

Through the years, radio's twin branches . . . broadcasting and the trade . . . have, curiously, trod virtually separate paths. Improvement in quantity and quality of broadcasts has sold sets. And steady increase in the number of sets sold by the trade has, in turn, sold broadcasting. But there has been little deliberation about these facts on either side.

Only now, in later years, is it becoming obvious to both branches of the radio industry that tangible and consistent cooperation is the best way to the common goal. That, we too are convinced, is the way to insure. . . .

Many Happy Returns of the Day.

W. Mac D.

RADIO and Television RETAILING, NOVEMBER, 1940

RUNGS IN Radio History

	Years With Radio (Millions)	
Automatic Changer Boom Three-Way Combinations FM-Tele Frequency Shuffle	1940	'Personal' Portables Home Recording Trend Cathode-Ray Color Television
Television Test Service	2E.7 1939	Yankee Network FM Two Way Portables
Lowest Priced Compacts Apex Station Licenses Educational Channels	27. 1938	Low Drain Portables CBS Hollywood Studio
Built-In Antennas Havana Conference	2E.1 1937	Pushbutton Tuning Peak 441 Line Television Facsimile Licenses
Beam Power Tubes British Television Service Radio Research Committee	24.6 1936	Public Sees Television Co-Axial Cable Low Drain Portables
Metal Receiving Tubes Armstrong FM Demonstrated	22.4 1935	Television Field Tests NBC Hollywood Studios
Crystal Phono Pickups FRC Becomes FCC	2L.4 1934	Mutual Network Formed
PM Dynamic Speaker	1E. 1933	Radio City Opened
AC-DC Sets Auto Radio Vibrators	1E.8 1932	Plastic Cabinets
W2XCR Television	1E.1 1931	All-Wave Consoles W2XAB Television
Pentode Tubes	14.8 1930	Radio City Proposed
Screen-Grid Tubes Cathode-Ray Television	1929	Shortwave Converters Color Television
"Tombstone" Midgets First Pushbuttons	1928	Remote Control Home Recording
Magnetic Phono Pickups First Coast-to-coast Hookup Trans-Atlantic Radiophone	1927	CBS Formed Television By Wire Automatic Record Changer
Dempsey-Tunney Broadcast NBC Formed	1926	FRC Formed McCormick-Bari Broadcast
First AC Tubes Single Dial Controls Built-In Speakers	1925	Radio Retailing Higher Broadcast Power
Radio Console Trend Shortwave Rebroadcast Presidential Conventions	1924	First Auto Radio KGO KOA London-N.Y. Facsimile
Early Battery Eliminators First Chain Broadcast Hazeltine Neutrodyne	1923	First Rebroadcast Jenkins Television
Superhet Demonstrated WGY WEAJ Princeton-Chicago Football	1922	First Sponsored Program Hoover Conference Remote Pickup
Dempsey-Carpentier Broadcast WBZ WJZ KYW WDY Amateurs Heard in Europe	1921	World Series Broadcast First ARRL Convention

High Bridge Radiophone - 22K Daily Broadcast - Alexanderson Alternator - Detroit B.M.C. Service - War Interruption - KDKA Harding-Cox Returns - Signal Corps Broadcasts - Vacuum Tube Increase

1915

Navy Opens MAA - Titanic Wireless S.O. - Armstrong Regeneration - Radio Compass - First Operator Licenses - International Radio Laws - Dept. of Commerce Sub Division

1910

DeForest Audion - Crystal Detector - Hiramshon Finder - Catuso Broadcast - S.S. Republic SOS - Compulsory Passenger Ship Wireless

1905

Trans-Atlantic Wireless - Fessenden Radio Telegraphy - Paulson Arc - Magnetic, Electrolytic Detectors - Berlin Wireless Conference - St. Louis Fair Exhibit

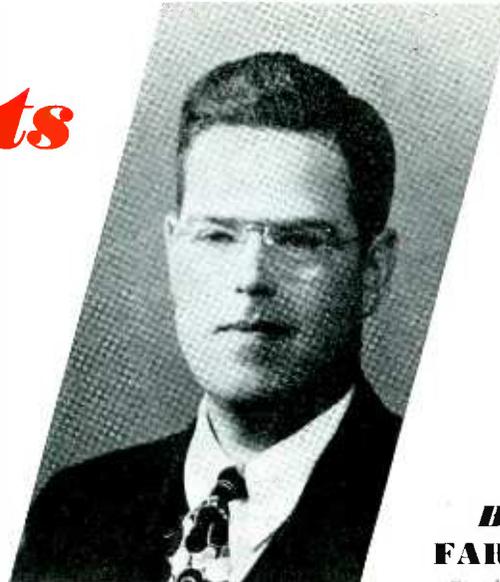
1900

Marconi Experiments - English Channel Bridged - First Paid Message - First Ship Distress Call - First U.S., German, Belgian Stations - Hertzian Theory

Maxwell - Bell - Edison - Galvani - Preece - Hertz
Etc.

A Dealer *Tilts*

At



By C. W. FARRINGTON

*Farrington Radio Co.,
Arlington, Mass.*

WHAT are manufacturers willing to do to insure survival of today's factory-to-wholesaler-to-retailer-to-consumer distribution system?

THE DISCOUNTS applied to radio merchandise have apparently backfired on the retail trade.

Discounts of 40 per cent and over seem to permit widespread distribution of consumer circulars that might just as well be headlined: "Only Suckers Pay List Prices."

Even among real retailers "gravy" discounts have encouraged the placing of a false value on trade-ins. They frequently allow their full margin, or very near it, for a used set that hasn't even junk value. And the customer, convinced that he has paid the full retail price, *expects all*

consequent benefits.

The slick "wholesale discount" operator actually *nets more money!*

Where Does the Dealer Stand?

Is there enough evidence of disapproval by manufacturers of the wholesale-to-consumer system?

Today such outlets represent *Big Volume* and that seems to count. If refused one line of merchandise the racketeer can always get another, with the result that he usually has his choice, to say the very least.

In my humble opinion the retail radio dealer must somehow contrive to re-establish a stronger position in the scheme of distribution. Otherwise radio will eventually become mere package goods sold on small margin chiefly by "wholesale-retailers." One form of evidence that the trend is already too strong in that direction is *the number of sets now coming in for service with their rubber cushion support blocks and packing screws still there after years of service.*

Are New Products Enough?

If F-M, Television or some other promise "just around the corner" is expected to put old-time profits back into the retailer's pocket what assurance is there that a discount-conscious public will flock to pay full retail prices any more than now? Even all the current talk about "return of the higher unit sale" doesn't promise the retailer a thing except *a seat on the bench while the sharpshooters play the game with the public.*

There is plenty of business going on in the upper brackets all the time. But less and less of it passes through the hands of legitimate retailers. So higher priced units *at the current discount scale* could even push the retailer farther than ever out of the running, for dealer discounts are no longer any secret from the public and there is more incentive to chisel on a large than on a small unit purchase.

Surprised at the relative ease with which they can buy at "40-off", prospects naturally get the impression that the retailer must get much *more* than that. The result is that many prospects become indignant at what they consider the outrageous prices asked by legitimate retail dealers.

The public . . . unless we do something about it . . . obviously does not intend to pay list prices for radios anymore. It is not "smart" and it does not appear to them that it is necessary.

Which Way Is "Normal?"

Selling for cash, in-the-carton, with big dollar savings as the *only* inducement, involves little overhead and the discount houses therefore neatly net nice profits on their comparatively narrow margins.

Radical as the thought may be, their's may really be a more "normal" business operation than that of the average dealer. Merchandise is bought, paid for, sold. And a *profit* is made.

Maybe it is the retail plan of operation that is abnormal. At any rate, the "prospect" who gets free

INVITATION

to Contribute Your Ideas

What is the solution?

- Banning of "wholesale-retail" selling?
- Reduction in number of dealers?
- All-industry campaign against racketeers?
- Discontinuance of trade-in allowances?
- Installation and service "extra"?
- Lowered distributor and dealer discounts?
- "Packing-case selling" by all retailers?
- Direct-to-dealer distribution?
- Suspension of specialty selling methods?
- Elimination of list prices?
-

R.S.V.P.

to Radio Retailing

The DISCOUNT Racket

advice and demonstrations from a dealer only to go over his head for the actual purchase actually holds only second honors. The really "smart" buyer *does*, perhaps, buy from a dealer but then works him for a trade-in allowance equivalent to a full discount and a year's service besides!

How many dealers are throwing away the bulk of their big discounts on useless trade-ins while at the same time carrying full retail overhead? In price competition with wholesalers, is it necessary or wise to offer more sales inducements than even *they* find necessary?

What Do Manufacturers Want?

Would the situation be improved for the retail dealer by a general reduction in discounts to the level that is *actually* in effect now? Just what is gained in profits by kidding

about the value of old sets? And who sells at full list today *without* taking a trade-in?

Would it be desirable, perhaps, to set retail services and advantages to a scale of prices so that the prospect could deal with retailers at a certain basic net price plus whatever extra benefits he thinks he wants?

Or is there still some practical plan for price maintenance to be found that will permit continuation of our present operating methods and discount scales?

Certainly manufacturers should have *some* control over how their products reach the consumer, and *please* the consumer. Yet one large manufacturer says: "Manufacturers who serve the dealer through a wholesale distributor are limited in action to a considerable extent because they cannot dictate the prices at which distributors sell to dealers,

nor can they interfere with distributor selection of dealers."

Where does this all end up?

Just what *is* the average manufacturer's and distributor's preference for product distribution? And, if it favors the present dealer setup, how do manufacturers propose to keep it working?

If the racketeer continues to be played against the legitimate dealer the dealer cannot possibly survive *unless he adopts the same tactics.*

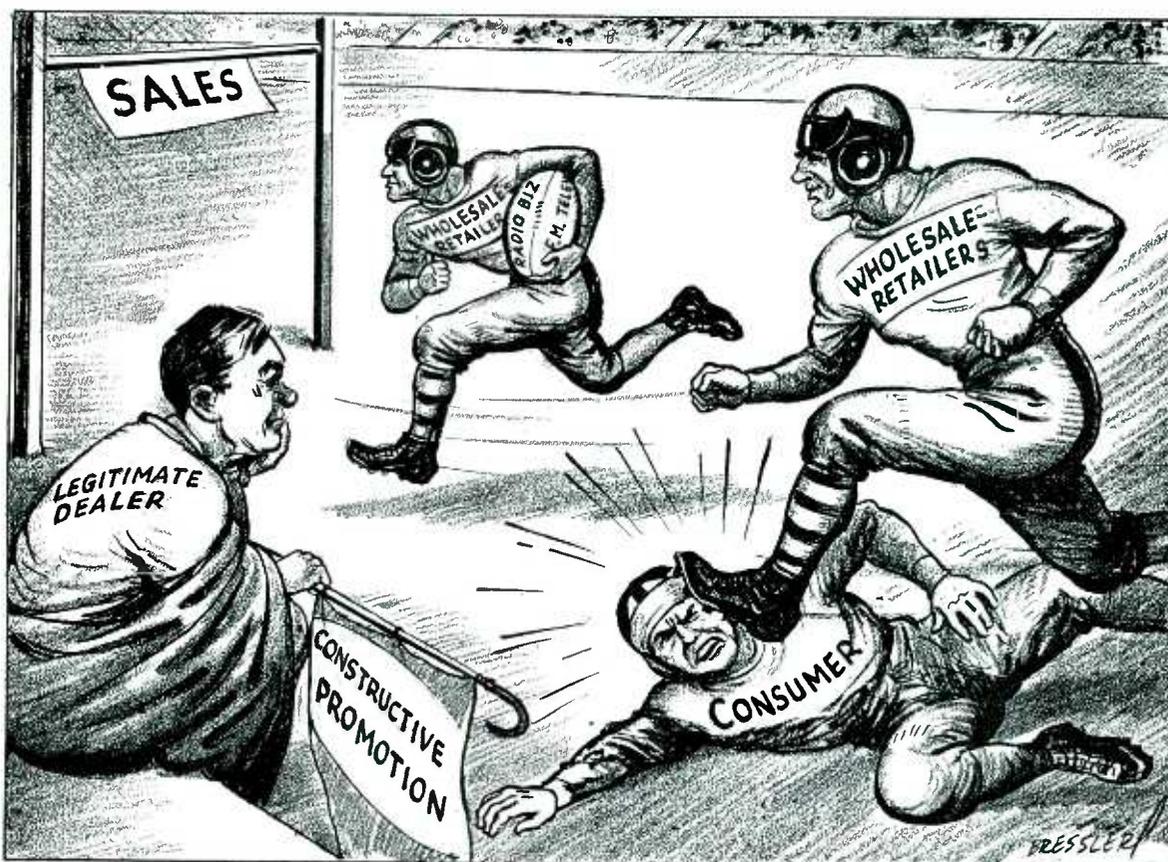
What Do Dealers Offer?

Naturally, I am prejudiced in favor of a manufacturer-distributor-dealer setup.

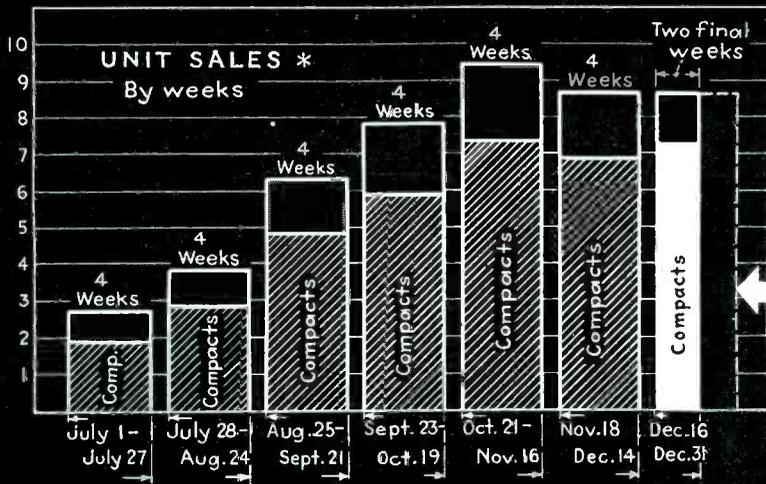
The dealer has much to offer. For instance, the legitimate radio retailer expects to:

1. Locate where traffic and sales exposure is the best he can afford.
2. Display prominently and attractively

(Continued on page 58)



"UNLESS SOMETHING IS DONE about price maintenance dealers will continue to sit on the bench while sharpshooters play the game with the public. . . ."

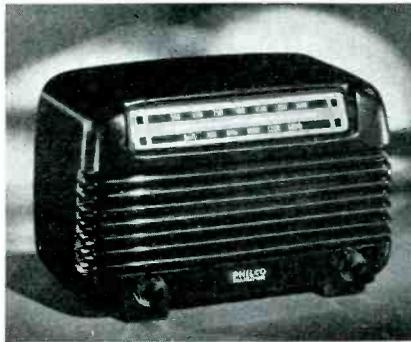


* New York Dealers average

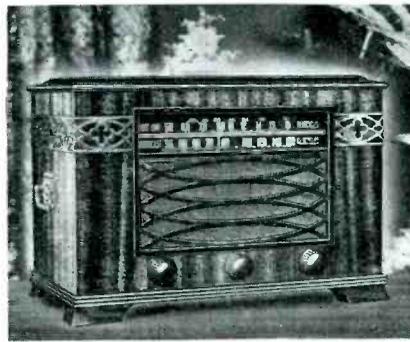
WRAP-UP

SET SALES reach a peak just before Christmas with *Compacts* and other *over-the-counter* types recording the biggest last-lap gain

By W. CARL DORF



PHILCO PT2 \$14.95



G-E J-62



WESTINGHOUSE WR173 \$10.95



EMERSON 406 \$12.95

SENTINEL 218-O \$16.95

GIFT BUYING, in the *months* before Christmas, raises the sale of radio Combinations, Consoles and Compacts to a peak.

In the *weeks* before the holiday Compacts benefit to a greater degree than other types, profiting particularly during the last-minute rush for reasonably-priced "packaged" merchandise that can be purchased without fuss or feathers right "over-the-counter."

Once the bulk of the available Combination and Console business is under his belt it is desirable that the dealer himself stimulate this last-minute interest in Compacts in every possible way for it is virtually "found business" that would otherwise go to other non-radio products.

There are many ways to play up small sets, among these the following:

Ideal Christmas Gift

The total figure on "Package Radios" during the holiday season is more impressive each year. The old line dealer, in his holiday promotion drive on Compacts and the new Personal Portables, emphasizes that these sets make Ideal presents because they are *practical*, and have personal appeal.

"Radio, the Perfect Christmas Gift" should be the keynote of every dealer's Christmas promotion. During the month of December the Radio Manufacturers Association and the National Association of Broadcasters will conduct an industry campaign under the head of "Buy a Radio for Christmas." The trade will do well to tie-in on both and especially capitalize on the all-radio promotional campaign.

There will be many radio set owners who think their present radio equipment is adequate for their



RADIOS



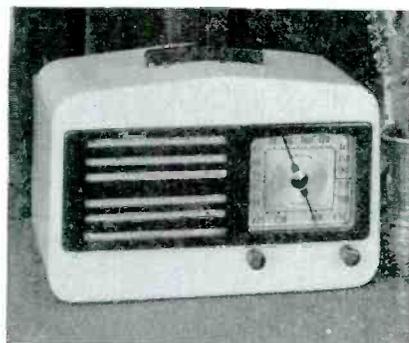
RCA VICTOR 10X \$14.95



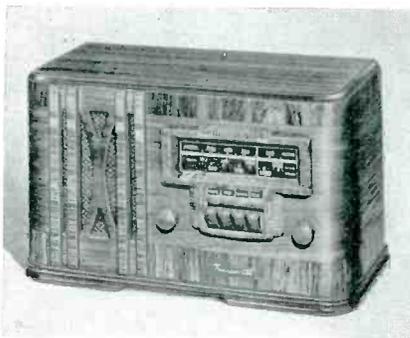
MOTOROLA 50XC \$18.95



BELMONT 534



GAROD 1450 \$19.95



FARNSWORTH BT55 \$24.95



ADMIRAL 52J55 \$16.95



DE WALD 558 \$22.45



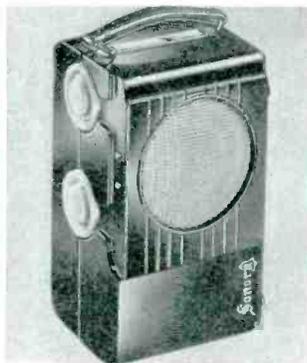
MAJESTIC T202A \$29.95



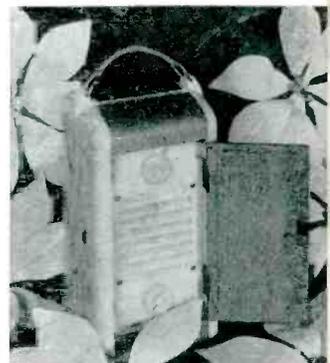
WESTINGHOUSE



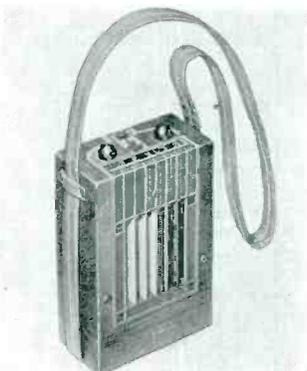
PHILCO



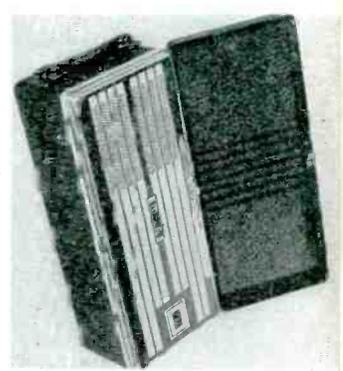
SONORA



SENTINEL



EMERSON



RCA VICTOR



DE WALD



G-E



CROSLY

Personal PORTABLES may make NEW Holiday Magic

313 Reasons Why **RADIOS** Make Perfect Gifts

SPECIAL LISTENING INTEREST *

OCCUPATION	Advertising	Building News	Business	Civics & Govt.	Education	Entertainment	Farm	Fashion & Shopping	Food & Cooking	Health	Homes & Gardens	Human Relations	Interviews & Forums	Literature	News	Religion	Travel & Traffic	Weather
Accountant.....			•	•														
Architect.....		•	•	•							•							
Artist.....			•	•				•			•							
Author.....			•	•							•	•	•	•				
Baker.....			•	•					•									
Banker.....	•	•	•	•			•				•	•	•		•		•	
Buyer.....	•		•	•														
Carpenter.....		•	•	•							•						•	
Cashier.....			•	•								•						
Chauffeur.....			•	•		•		•				•					•	•
Civic Worker.....			•	•	•		•			•			•					
Clergyman.....			•	•		•				•		•	•	•		•		
Clerk.....			•	•	•							•						
Collector.....			•	•								•					•	
Conductor.....			•	•													•	•
Contractor.....		•	•	•											•		•	•
Decorator.....			•	•				•			•						•	•
Deliveryman.....			•	•													•	•
Dentist.....			•	•						•								
Draftsman.....		•	•	•						•								
Dressmaker.....			•	•				•										
Editor.....	•		•	•	•	•				•		•	•	•	•	•		
Electrician.....		•	•	•							•				•	•		
Engineer.....		•	•	•	•							•						
Executive.....	•	•	•	•		•						•						
Exporter.....			•	•											•		•	•
Farmer.....	•		•	•		•	•		•		•				•		•	•
Fireman.....		•	•	•		•					•				•		•	•
Foreman.....			•	•	•						•				•		•	•
Forester.....			•	•		•	•				•				•		•	•
Housewife.....			•	•		•		•		•	•				•	•	•	•
Inspector.....		•	•	•											•		•	•
Importer.....	•		•	•		•									•		•	•
Inventor.....			•	•														
Laborer.....		•	•	•						•								•
Lawyer.....			•	•								•	•	•	•	•		
Librarian.....			•	•	•		•	•			•	•	•	•	•	•		
Manager.....			•	•						•					•		•	•
Mechanic.....		•	•	•														
Merchant.....	•		•	•		•						•						
Messenger.....			•	•													•	•
Motorman.....			•	•													•	•
Musician.....			•	•		•												
Nurse.....			•	•	•			•	•	•	•				•		•	•
Painter.....		•	•	•							•							
Photographer.....			•	•														
Physician.....			•	•						•					•			
Pilot.....			•	•											•		•	•
Plumber.....		•	•	•							•						•	•
Policeman.....			•	•						•					•		•	•
Postal Worker.....			•	•													•	•
Printer.....	•		•	•														
Proprietor.....		•	•	•								•						
Reporter.....			•	•								•	•				•	•
Salesman.....	•		•	•								•	•		•		•	•
Saleswoman.....	•		•	•								•	•		•		•	•
Servant.....			•	•				•	•		•							
Showman.....	•		•	•		•									•		•	•
Stenographer.....			•	•	•			•							•		•	•
Student.....			•	•	•								•	•				
Teacher.....			•	•	•					•				•		•		
Technician.....			•	•	•										•		•	•
Traveler.....			•	•		•				•					•		•	•
Watchman.....			•	•													•	•

* These program services are "on the air"

No HOME or BUSINESS Can Have TOO MANY Radios

present needs. Why buy another set? The dealer, out to get his share of the season's gift money, will be prepared for this question. He will point out the many spots in the home where an *extra* set is waiting to be placed. For instance, the guest room, bedroom, nursery, child's study, kitchen or recreation room and other spots in the home. He might point out that the executive buys a radio today as he would any item of office equipment, finds that it is a requirement in present day business.

Extra Punch This Year

Portables, along with Compacts, were the big sellers in the 1939 holiday season. This year we have the new Personals and if their sale, for the few months they have been on the market, is any criterion they will be a pushover as gifts for college students, business people, etc.

It is the practice of many banking institutions to mail Christmas Club checks to its holders the first part of December. Prepare for this business now. Here's cash money waiting to be spent and a big share will go toward the purchase of radios. Dealers say those neat little cards posted in the window, reading "Christmas Club Checks Cash Here" bring in a whale of a lot of holiday business.

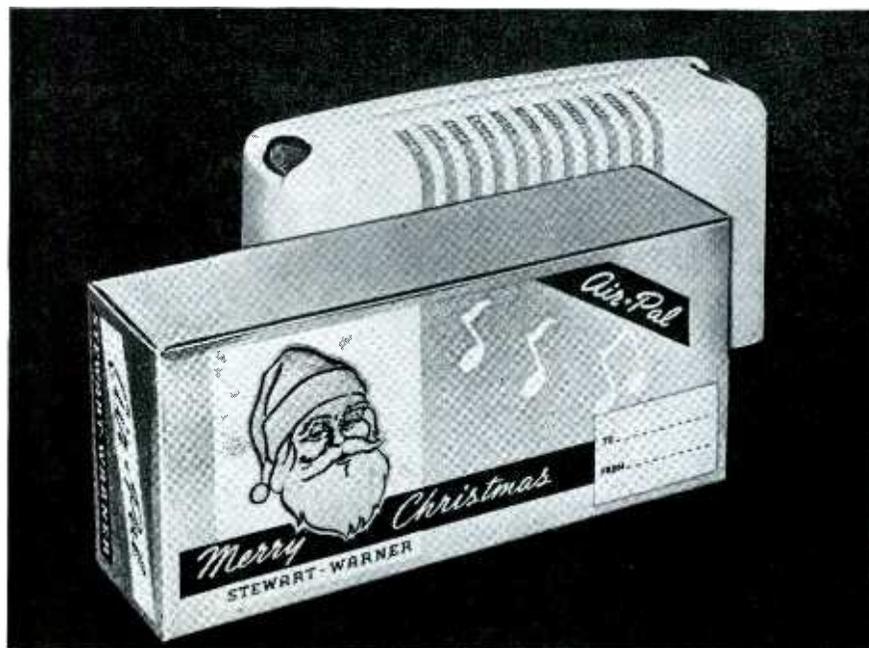
"Buy Now and Pay in January." Some dealers stimulate sales on this appeal. This plan includes more and more users every year. In this way, Ma gets the bedroom set she has been waiting for, and Son gets the extra receiver for his room at college.

The progressive dealer, realizing that the Christmas season offers the biggest sales opportunities of the year, will have his sales campaign started well before the holidays. He knows that extra promotional effort placed on advertising, display and sales direction during this season, might mean the difference between profit and loss in his annual statement.

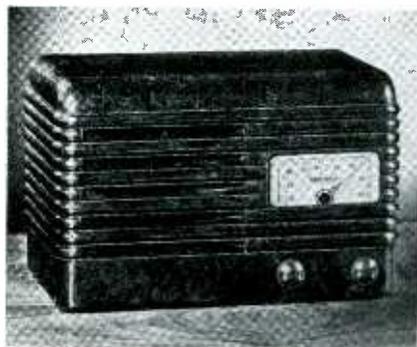
Window and Store Displays

The retailer will look to his window and floor displays. He will see that they are colorful and interesting. Last year's tinsel and ribbon with a "lick and dusting" won't do for this season. The new Compacts deserve new displays to command

More "PACKAGED" Merchandise for the Last-Minute Market



STEWART-WARNER A6 \$10.95



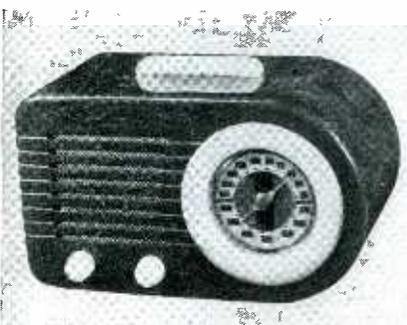
HOWARD 700 \$12.50



PILOT B1 \$19.95



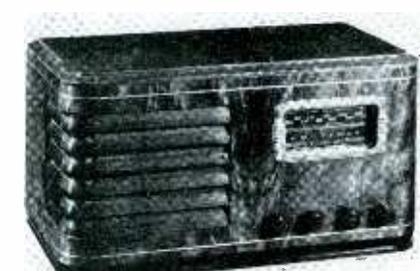
SONORA KM138 \$18.95



FADA 115BA \$19.95



ANDREA 12FS \$19.95



WILCOX-GAY A76 \$24.95

attention. The window, store and equipment should be brightened up and set forth in its best holiday finery.

Extra effort will be given to courtesy and cheerfulness. One big New York dealer says that both these items are emphasized all year in his store, but extra "oomph" is given them at Christmas. Also important that salesmen have the "holiday spirit."

Some dealers say that their past experience dictates that a well-rounded stock of models at this season, carefully selected for sales appeal, will net the most radio sales. Find this an important angle of the business. The radio buying public at Christmas has no time to wait. They have the money to buy and that dealer gets the sale who has the item in stock.

With employment on the "up" all

over the country and consumer purchasing power higher now than in 1929, this Christmas shopping season promises to be the biggest ever.

To the dealer, Christmas means more radio buyers than he will see for another long year. Its a "sellers market." Consumers will come to the store with the purchase money actually in their hands. The smart dealer knows this and will be prepared.



"Lures the prospect right into the store where we want them"

Free RECORDING

"STEP RIGHT UP and get your ticket entitling you to a free recording at the Jackson Electric Service. Hear your own voice reproduced through one of the new *Home Recording* instruments."

This dealer, located in Nashville, Tenn. plugs this announcement over his P. A. system to the street shoppers and says it is a sure traffic-stopper. The an-



nouncer carries the "mike" right out to the street. His spiel is made in a nice friendly style, stressing that the invitation has no strings. Finds that the printed cards are necessary to the successful conclusion of this promotion. Such an invitation is accepted more readily and permits the dealer to place the invite where it will do the most good.

Women, especially, fall for the chance to have a free recording made of their voice. Practically all who receive the invitation walk right into the radio department, proceed to have the record made and then listen to a well prepared sales talk on radios delivered by the manager, G. L. Winstead.

The records, costing only three cents each, are about the cheapest and best advertising medium employed by the store says Manager Winstead. "They get the prospect right into the store where we want them. We take the name and address of every ticket holder and those who do not own a late radio set will be canvassed by our outside salesman."

"Street announcer attracts crowds with free invitation"

National

By VIN ZELUFF

UNCLE SAM's program of re-arming for National Defense necessitates expansion of certain industries supplying equipment needed by our armed forces.

As these industries expand they need more men as well as more machines. New men have to be trained. And as these men turn their hands from more peaceful business pursuits to Defense production others must be trained to take their places if the normal economic life of the country is to continue uninterrupted.

Training of skilled manpower is thus one of the Government's immediate objectives. And it is proceeding with this job as we write.

Federal-State Cooperation

Training of men now employed or expected to be employed in various industries important to national defense is being accomplished for the most part through existing state Boards of Vocational Education.

Although started only a few months ago in many States, reports from widely scattered sections of the country indicate that the defense training program has already resulted in a high percentage of placements in industrial employment and that "bottlenecks" of production in not a few factories have been broken up or avoided.

This extensive training program requires the close co-operation of industry, labor, federal services and the local school systems. For the smooth operation and co-ordination of the factors involved an appropriation of \$43,000,000 has been made available through the United States Office of Education of the Department of Interior.

Although this fund, and in fact the whole program, involves many "war industries" your Uncle Sam does not regard radio as a stepchild. On the contrary, *radio ranks high in his judgment of defense needs.*

Since co-operation is the watch-

Defense and the Serviceman

RADIOMEN have something to give and something to gain. Training of troubleshooters as well as operators vital to government's plans

word, the offices of the federal, state, and city departments concerned have requested and are now receiving advice on the needs of industry and labor from representatives of companies and labor unions who sit on advisory boards and commissions and meet with the members of the education departments.

Courses of study have, for example, been planned to give men a working knowledge of radio theory and practice sufficient to obtain employment in factories that receive government contracts for radio equipment (mostly receivers, transmitters, transceivers) but as the program advances changes and additions to the course of study may be made as the need arises.

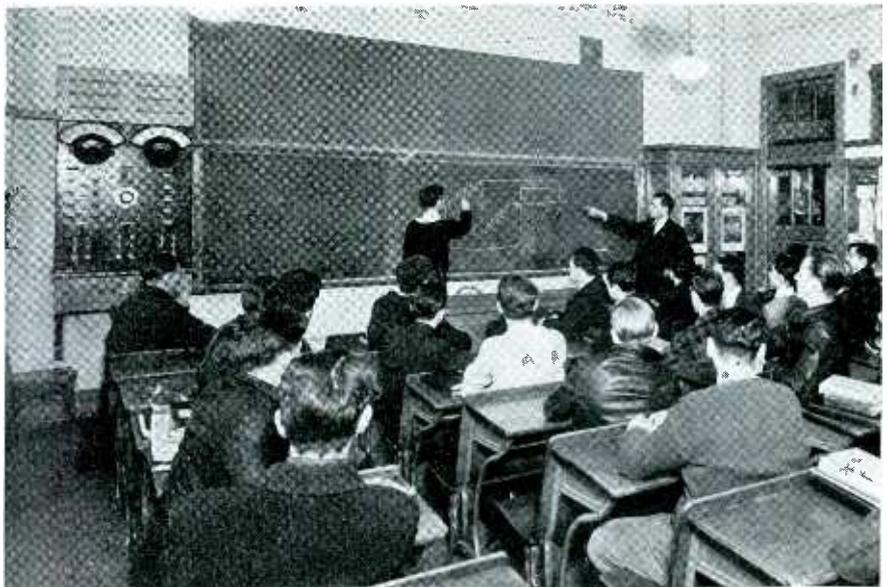
How Schools Operate

Although details of the various state and city setups are not available at the present moment they are probably similar to that employed in New York State. Here the vocational training branch of the State Educational Department assumes jurisdiction over vocational training in cities having a population over 100,000 and the defense training program is handled through these existing offices.

In New York City an advisory board consisting of representatives of labor and industry assist the director of this program. Each industry is assigned a personnel director, whose main responsibility is the student body and the teaching staff. A commission of about twenty-five men recruited from radio companies in the metropolitan area meet periodically and co-ordinate the needs of industry to the facilities of the Board of Education.

At the moment of writing there are 657 students enrolled in the radio courses offered alone. These consist of radio theory, shop practice, and code and communication theory.

Since the courses are conducted at night the regular instructors in



radio of the city vocational schools are able to fill in but *additional instructors from industry have been added after passing special examinations.*

To Be Expanded

Since the number of students will inevitably increase, plans are now being made to make additions to the teaching staff and examinations of potential instructors are held frequently. Interested servicemen who can qualify should expect to use their own equipment and tools for both examination and, if appointed, for classroom demonstration, since the equipment available at the present time is necessarily limited.

In a few weeks it is heard that WPA men will be sent to receive instruction in lieu of their part time work for this government agency. This will probably be arranged by holding classes from 10 PM to 6 AM in two sessions. Dubbed the "Dawn Patrol" by the school authorities, this extension of the program will require the 11 schools involved in New York to be kept open twenty-four hours a day, a condition

**BOARD OF EDUCATION
OF THE CITY OF NEW YORK**

**EMERGENCY
TRAINING PROGRAM
FOR NATIONAL DEFENSE**

The following free courses are offered to
 Journeymen, Mechanics and Semi-skilled Workers

- MACHINE SHOP
- PATTERN MAKING
- FOUNDRY
- WELDING
- WHEEL METAL
- STATION MECHANICS
- HEAT TREATMENT OF METALS
- RADIO-COMMUNICATIONS SERVICE THEORY
- WORDWORKING

←

LEGAL TITLES, TRADES
 MARINE TRADES
 DICK and ENGINE
 RELATED SUBJECTS
 Trade Mathematics, Drawing & Blueprint Reading

Individual instruction is given in groups, limited to ten in shops of
 the New York City Schools Monday to Friday, 6:00 P.M. to 7:00 P.M.
 and 7:00 P.M. to 11:00 P.M.

REGISTER with your Personnel Manager, your Business Agent or in
 Room 1010 116 Lexington Street, Brooklyn, N. Y. M.—7 P. M.

HAROLD G. CAMPBELL
 Superintendent of Schools

also reported existing in several other states.

How To Apply

Radio technicians who are interested in enrolling in classes or of obtaining employment as instructors in this emergency training program for national defense would be best advised to get in touch with their city vocational schools for information as to the requirements.

A WOMAN recently entered a Baltimore radio store and selected a midget radio. She wanted to trade in, on the midget, her old radio that had cost \$450 ten years ago. When told that no trade-ins were allowed on the set she had picked, the woman walked out.

This case illustrates only one of the many headaches connected with trade-ins. Ten years ago, there was a pretty fair market for used sets—today, the midget machine has virtually killed that market. But the trade-in, unprofitable though it is, still appears to be a necessary feature of radio merchandising.

No Single Answer

There is no single answer to the trade-in problem; a retailer with outlets in different cities frequently uses a different technique for each of his stores. Competitive situations and cooperation among dealers vary from city to city. Hence, the points made below can be only suggestions.

- 1 Don't accept trade-ins when the new set sells for less than \$25. If competition will permit, \$50 would be better.
- 2 Don't let the customer trade in a midget radio. These little machines are not worth enough in the re-sale market to justify your accepting them.
- 3 Don't allow the customer over 10% of the price of the new radio. Very few stores find it desirable to try to allow just what the used set is worth. There seems to be no remedy for a competitive situation which forces you to allow

PERENNIAL Problem

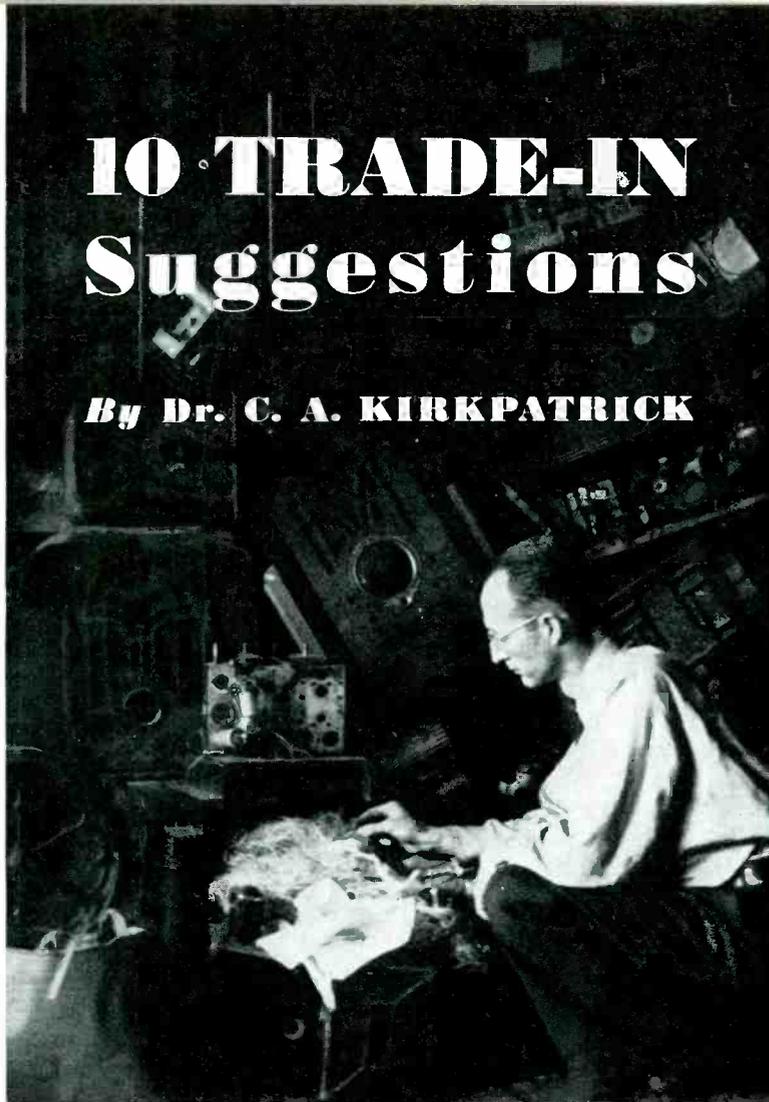
DESPITE the fact that traded-in radios are almost never handled at a profit, really represent a concealed discount on merchandise with little enough margin to spare, "give-away" allowances continue.

REASONS are complacent acceptance of the idea as a necessary evil, competition and lack of a practical set of standards around which retailers might rally.

WHAT SHOULD SUCH STANDARDS BE? *Radio Retailing* offers its Editorial columns for open trade discussion of possible solutions, invites correspondence.

10 TRADE-IN Suggestions

By Dr. C. A. KIRKPATRICK



ONE GOOD WAY?—"A heap, excelsior and a match"

- 10% regardless of the condition of the used set.
- 4 Don't recondition trade-ins unless you have proved to yourself that this is profitable. Most retailers find it preferable to store the used sets, just as received, in the basement or in a warehouse and sell from there. A department store might profitably recondition some sets and offer them as part of its weekly remnant sale.
- 5 Cultivate local stores handling used furniture. Trade-ins can frequently be sold in lots to these retailers.
- 6 Cultivate out-of-town buyers who purchase used radios in lots. Certain retailers have become known to these out-of-town buyers as being thoroughly dependable and reliable; as a result, they are visited first when the buyers arrive.
- 7 Investigate the possibilities of donating used radios to charity. If you check your local newspaper rates, you will probably find that \$10 buys very little space. Yet, you can probably give away ten trade-ins, which you could not sell for over a dollar each, in such a way that much good-will accrues to you and many new customers are made.
- 8 Try disposing of trade-ins through the local auction if your city has one. Retailers might even find it desirable to sponsor an auction as a means of placing used radios in the hands of the low-income groups in the city.
- 9 See if lots of 50 or 100 can be shipped to some other market. Some stores profitably send lots south.
- 10 Try to find, at all times, new markets for trade-ins. Dealers in port cities sell to persons aboard ships. Resorts that are open only for a short season, summer camps, college communities—these illustrate potential markets that warrant investigation.



200 VDC



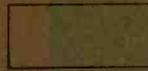
400 VDC



600 VDC



1000 VDC



1600 VDC*



2000 VDC

You Know the Voltage at a Glance!

P. R. MALLORY & CO. Inc. **MALLORY** Tubular Paper **CONDENSERS** are "Color-Coded" to RMA Specifications

Say "so-long" to squinting and peering in order to dope out voltage and capacity on wax-covered tubular paper condensers. Mallory Tubular Paper Condensers in their colorful new labels put an end to all that. Not only are capacities clearly legible, but the bottom color-code band instantly identifies the voltage from all angles.

Here's a time saver that is typical of Mallory's constant effort to make radio service faster and more profitable.

The high quality of Mallory Tubular Paper Condensers is greatly enhanced by the convenience of the new label that is simply applied *over* the regular heavy cardboard tube and thick wax coating.

See the new Mallory Tubular Paper Condensers today. See for yourself how easy they are to identify . . . how much time and trouble they will save. Your Mallory distributor has the full line.

P. R. MALLORY & CO., INC.
INDIANAPOLIS INDIANA
Cable Address: PELMALLO

★ Application made to RMA to adopt this color-coding for 1600 VDC. No color has yet been assigned to this voltage by RMA.



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

Include

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



P. R. MALLORY & CO., Inc.

MALLORY IMPROVED Vitreous Resistors

- Maximum Wattage Dissipation
- Resists Permanent Change under Overloads
- High Resistance to Humidity
- Long Efficient Life.

When it comes to choosing resistors . . . be guided by facts drawn from extensive *practical* experiments and tests based on practical service condition needs. If you do you'll inevitably choose Mallory Improved Vitreous Resistors.

Here's a line that reflects the full power of Mallory's engineering leadership in every essential. Quality materials and quality workmanship insure the ultimate in dependable service and assured profits.

You'll like Mallory Improved Vitreous Resistors. You'll like the always legible embossed metal identification band. Order a full assortment from your Mallory distributor today.

P. R. MALLORY & CO., Inc.

MALLORY NOISE FILTERS

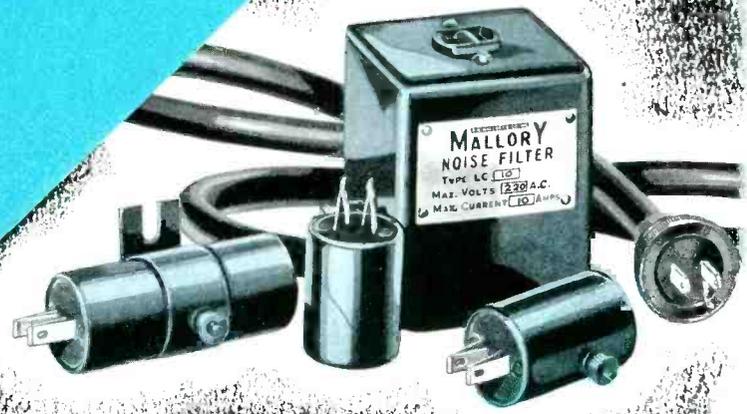
Give You ALL the Answers

The variety of electrical appliances used in homes today is greater than ever. Radio sets are more sensitive. As a result, the problems arising out of man-made static are infinitely greater.

Nevertheless . . . Mallory Noise Filters give you all the answers, and adequate coverage of all normal requirements. Mallory's recommendations are field-tested and specify the type and size for the character of interference as well as the intensity.

Every set owner is a prospect for one or more Mallory Noise Filters. They will turn in a demonstration that will sell them instantly, and Mallory's reputation is your assurance that they will continue to function long and efficiently. Don't let your customers look to others to get improved radio reception.

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



See your Distributor . . NOW!

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

Include

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

FIGURES for Comparison

By **ROBERT LEE COSHLAND**

with Sirota, Kraus & Gleason, C.P.A.,
New York

IN THE BUSINESS WORLD of today, the study of figures as a guide to control has become a paramount activity.

Of particular value is the knowledge of how your own business stands in relation to others. In this article we present and discuss the actual operating results of a representative group of stores in the New York area for the first half of 1940.

Last Half Best

Glancing at the Consolidated Profit and Loss Statement presented here, the eye travels first to the last item: "Net Loss, 4.7%." It is customary among the stores of the group to expect a net loss during the first six months. In general, they are virtually departments stores, and as such they rely heavily on the Fall peak of business to produce annual net profit. Less than 10% showed a net profit for the first six months.

These figures represent the averages of a group of stores which have widely differing operating conditions. As such, they are fairly representative of the industry in the New York area; and although your own store may have special conditions, you still should find it worthwhile to use the expense rates shown here as a guide with which to measure your own performance.

Wide Store Variation

To indicate the range of disparity among individual stores, gross profit rates varied from 26.2% to 42.7%, depending on local conditions, and on the profitability of merchandise other than radios and refrigerators. It is interesting to note, furthermore, that the store with 26.2% gross profit did nearly three times the sales volume of the store with 42.7% gross profit. However, the expenses in the former store were less than double those of the latter store, so that through the greater sales volume its net loss was only

(Continued on page 59)

Group of Retail Stores CONSOLIDATED PROFIT and LOSS STATEMENT

(Six Months Ended June 30, 1940)

		Percent of Net sales
Net Sales	\$545,099.65	100.0
Less, Cost of Sales	366,949.96	67.3
Gross Profit	178,149.69	32.7
Direct Store Selling Expenses:		
Salesmen's salaries and commissions	65,790.14	12.1
Servicemen's salaries	10,507.15	1.9
Delivery salaries and auto expense	19,188.08	3.5
Rent and heat	35,201.74	6.5
Advertising and advertising salaries	17,890.07	3.3
Electricity	8,685.43	1.6
Leasehold improvements	6,281.44	1.1
Miscellaneous selling expense	3,258.02	.6
TOTAL SELLING EXPENSE	166,802.07	30.6
Administrative Expenses:		
Officers' salaries	17,145.31	3.1
Office and collectors' salaries	16,086.28	2.9
Insurance	3,641.29	.7
Telephone	3,928.02	.7
Professional	4,131.44	.8
Taxes	5,991.31	1.1
Bad debts	2,515.62	.5
All other expenses	6,860.40	1.2
TOTAL ADMINISTRATIVE EXPENSES	60,299.67	11.0
Total Expenses	227,101.74	41.6
Operating Loss	48,952.05	8.9
Less: Advertising Rebates	10,423.75	1.9
Purchase Discount, Financial and other income	12,628.04	2.3
TOTAL OTHER INCOME	23,900.26	4.2
Net Loss	25,900.26	4.7

Group of Retail Stores SALES and GROSS PROFIT by DEPARTMENTS

(Six Months Ended June 30, 1940)

Department	Net Sales	Percent of Total Sales	Gross Profit Percent	Percent of Total Gross Profit
Radio	\$120,728.44	22.15%	37.5%	25.8%
Refrigerator	184,786.54	33.90%	27.0%	27.3%
Other Major Department	131,036.52	24.04%	38.2%	27.4%
Appliances and Minor Departments	108,548.15	19.91%	30.7%	19.5%
Total	545,099.65	100.00%	32.7%	100.0%

Promoting RECORDS



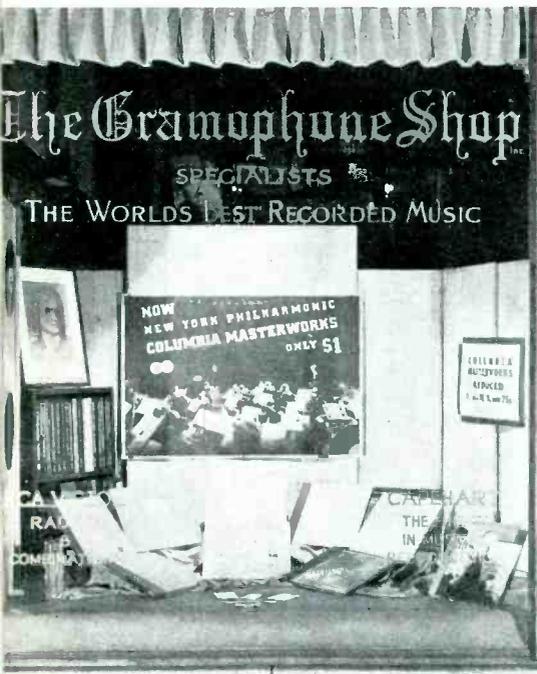
No Waiting

THESE semi-enclosed audition booths have proven a big success in the new record department of Bloomingdale's store, New York City. They are reserved especially for the playback of dance music, race recordings and other

popular hits of the day. Result from the merchandising angle is the definite acceleration of sales. Volume level is set, so user doesn't blast party in next stall. The department is also equipped with completely enclosed booths for auditioning classical and sacred records.

Front and Center

HERE is an attractive window display on Columbia Recording's "Masterworks For Millions" campaign that gets its story across with skill and potent force. The Gramophone Shop, well known New York record dealer, is the setting for this display. In the center is the big news that *Now* New York Philharmonic records are available for \$1. The base of the display is devoted to the popular albums. Within the store the campaign idea is also stressed with counter displays and announcement cards.



By
CASWELL ODEN

THERE ARE, in the electrical appliance field, two basic methods of outside selling employed.

One requires one man to both canvass and close. The other is based on the knowledge that canvassing is one job, selling another and that the separation of the two gives us, along with many other advantages, the most effective use of our manpower.

Easy Way Worst

Faced with the fact that I have repeatedly recommended the latter method, the less popular of the two, I should remind you that popularity does not, necessarily, imply merit. In this case, the popularity of the "complete salesman" idea is due to the very human trait of taking the course of least resistance. It is much *easier* for a dealer to take signed contracts from complete salesmen than it is to close the business of new or less able men. But this does not in any way render less potent the basic advantages which come from the separation of canvassing from closing.

We still have to admit that a salesman is spending his time to the best advantage when he is spending it all on prospects and not part of it looking for them. We still have to admit that a new or less able man is spending his time to the best advantage when he is doing something he can do instead of trying to do something he can't. And we must remember all I have said about the mental attitude, of both canvasser and supervisor, when they are working in the wrong way, and when they are working in the right way.

Hard Way Best

As the matter now stands you know that, in the electrical appliance



a Specialty SALESMAN

THAT'S WHAT your man *is* if you
insist that he *canvass* as well as *close*

field, popular or not so popular, the separation of canvassing from closing gives us (*plus* other advantages) the greatest benefit from our manpower. You have had *proof* of this. But there are a lot of men selling appliances (most of them in the wrong way) because appliances lend themselves very readily to specialty selling, so readily in fact that a good man can work in the wrong way and still earn a living—and *that* is why he can get away with improper methods. I want to show you that basically superior methods, whether they are popular or not, will prove their superiority even with merchandise which does *not* lend itself so readily to specialty selling.

With this in mind, let's switch to the oil burner field for a moment. Here the methods I advocate are not merely unpopular; they are non-existent. Nevertheless, this summer I wrote a series of three articles for *Air Conditioning & Oil Heat* on the most effective use of outside sales man-power. The complete series was well-received and the mail I got direct was very gratifying. And Why? Simply because, my friends, you can't get away from the *truth*. It makes no difference if nobody is doing what you advocate,

they'll listen to you if you tell them the truth.

Well, after the material was published, I sat myself down and thought, Oden, I said to myself, you know you're right. As a matter of fact, they know you're right. But it certainly would be nice if one of them would *do* it.

Same In Other Lines

You made a very complete comparison for them, between selling appliances and selling oil burners. You gave them all the arguments, pro and con. You let them tell you about how scarce oil burner prospects are on a canvass, compared with appliances, and then you told them about the fact that they have no trade-ins to worry about, and that when they finally do make a sale they've made on that runs into money.

You listened patiently while they told you (or while you did it for them) about how competitive their industry is, and then you told them that the radio business is twice as competitive, plus the fact that we don't even sell them any more, just replace them.

And then you went on to show them that all this, important though it is, concerns outside selling *itself*, in each particular field, whether it be easy or tough—And still has nothing to do with *methods*. Even if we were selling steamboats house to house—the right way would be right, and the wrong way wrong. The only basic difference between outside selling in the two fields is this:

(1) The appliance salesman, selling the full line, has *several* items to offer, where the oil burner man has only one, giving the former a better opportunity on the canvass

(Big Selection—Big Volume). (2) The oil burner man sells only to home *owners*, whereas the appliance man sells to renters too.

But if outside selling actually is tougher in the oil burner field (and it must be, judging from the trouble they have getting men)—then that is all the *more* reason why they should employ proper methods.

Proof of the Pudding

Well, that was the story I gave them. And I don't know yet whether any of them have tried it out or not. But, as I said, I was hoping some of them would . . . and then, just recently, I discovered something:

There is a concern in Philadelphia (Huck-Gerhardt Company, Inc.) which manufactures and installs custom-built porch-enclosures, rustless screens, storm sash, and overhead operating doors. The porch enclosure, of course, is the big job, a sale usually running around two or three hundred dollars.

This concern has maintained a Soliciting Organization, and a Sales Organization, for fourteen years—with each *entirely* separated from the other. Each canvasser turns in his leads not to a supervisor or salesman but to the office, where they are typed on cards, and distributed among the salesmen. The salesmen cannot complain about poor leads—for they do not even know who turns them in. And the territory of each salesman is constantly being switched in such a way that he never handles the leads of any one canvasser for more than a week.

The solicitors are paid a salary of not \$10 a week but \$15. Their commission, however, is only 2%. The canvasser has only *one* item to offer. Each prospect must *own*

(Continued on page 60)

How to Promote

FM

FREQUENCY MODULATION will in the future constitute an important part of many retail radio operations.

The date at which this occurs in a given locality depends upon (a) the rapidity with which stations are licensed and start operating, (b) the character of programs emanating from such stations and (c) the speed with which the public so served can be familiarized with the features of FM.

Preparation

One method of promoting the system (c) was described in *Radio Retailing's* July '40 article about the cooperative campaign staged by Milwaukee radio dealers and station W9XAO.

The FCC and the broadcasters are doing everything possible toward supplying the answers to items (a) and (b). With recent FCC approval FM stations will be permitted to sell airtime. FM Broadcasters, Inc., reports that the first of the new commercial licenses and call letters will be announced shortly. It is further reported that if licenses are granted in accordance with areas of coverage requested new FM stations will be able to service over 75,000,000 potential listeners.

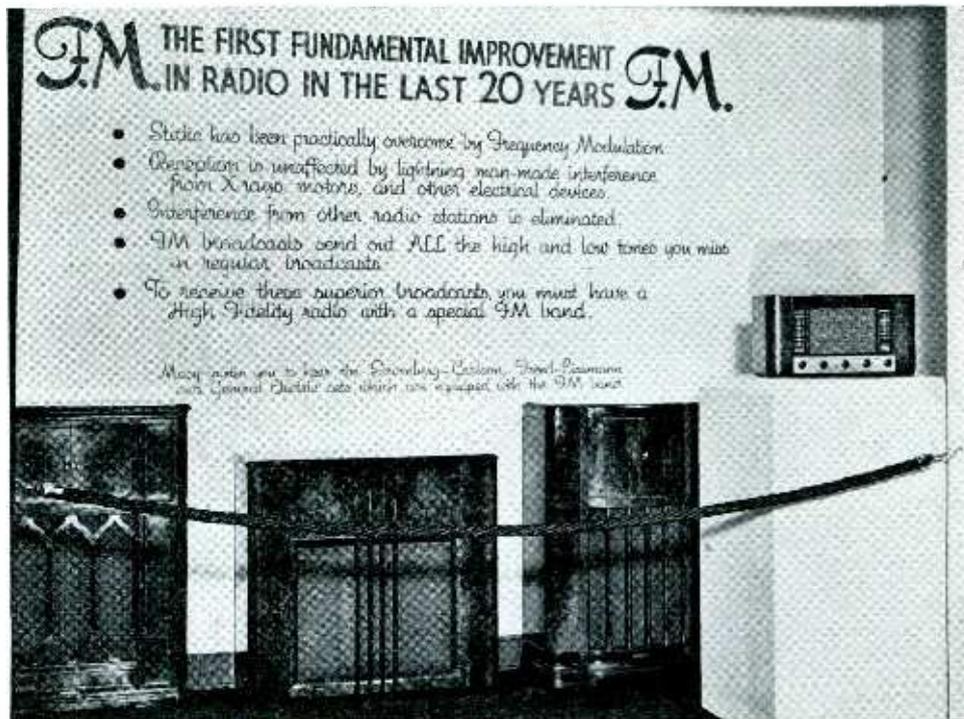
From here on promotion is

Job for DEALERS

MANUFACTURERS
have started national advertising

BROADCASTERS
are expanding program service

DEMONSTRATION
and **SALE** is now up to the **TRADE**



HOW ONE BIG STORE FEATURES FM—Macy's, in New York, has set aside a separate section in its radio department for the display of three FM receiver makes. Features of the system, painted on the wall, form a display backdrop

largely up to the trade itself.

Momentum

In the New York area 5 FM stations have been operating experimentally.

Asked for suggestions regarding promotion of the new service elsewhere, in the light of their own experience to date, dealers had varied reactions.

Most retailers interviewed said that the majority of inquiries were at present coming from the more technical among consumer types, but that this was not the group from which volume business could be obtained. Recommended was advertising and promotion written for music lovers and placed in media reaching a larger number of such prospects.

Greater interest among such music lovers, it was said, would be generated as program quality rather than program quantity improved but much depended upon the dealer's ability to induce such people to actually listen to demonstrations. Experience of many dealers indicated that after such demonstra-

tions lovers of quality music were definitely impressed with the new service.

It also seemed obvious to many men interviewed that in addition to specialized types of promotion among true music lovers they would have to stage more elaborate demonstrations than heretofore, would probably do a better selling job when salesmen had been properly trained to sell upper-bracket prospects. Men specializing in the handling of such clientele seemed logical to quite a few.

Promotion

Dealer advertising copy deemed most effective by the New York trade was extremely simple, avoided technicalities. It was said in several instances that currently used descriptive phrases still left something to be desired from the standpoint of clarity to the average quality music lover.

Invitations posted to clientele for a personal demonstration was another suggested method for pushing FM sets. Along the same promo-

(Continued on page 60)



Another Great Step Forward!

PROMISE...PERFORMANCE

and

PROGRESS!

Last year 36... this year only **31**
RCA Preferred Type Tubes!

PROMISE November 1939... Wilderness and confusion in the tube industry—the unregulated evil of “too many tube types.” For the first time, a manufacturer points *a way out*. RCA leadership and experience—and months of study—permit the announcement: “Just 36 Preferred Type Tubes cover virtually every requirement in the design of radio receivers—for finest performance at lowest overall cost!”

PERFORMANCE June 1940... In six short months, the RCA Preferred Type Tubes Program has been endorsed and adapted to production by 18 leading manufacturers of radio receivers. Results—? Better, more uniform tubes. Faster deliveries—from *stock*. Lower inventory and warehousing costs. The entire industry has benefited!

PROGRESS November 1940... One year has passed. Manufacturers have announced still more new tube types—and more, and more. There are now *over 500* types on the market! Does RCA *still* say that you can do a complete job with only 36 types—?

RCA goes farther even than that! From the experience and proof-of-performance of the past year, RCA now makes the still more sensational statement: “Only 31 Preferred Types will cover virtually every requirement for modern radio receivers.” Another great step!

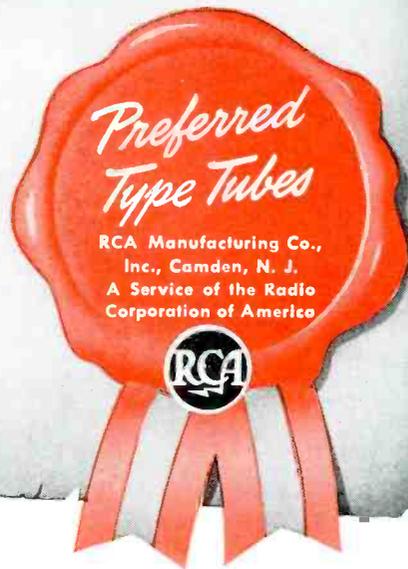
Increasingly, this Program moves *forward*—to the betterment of manufacturer, distributor, dealer, serviceman and public alike.

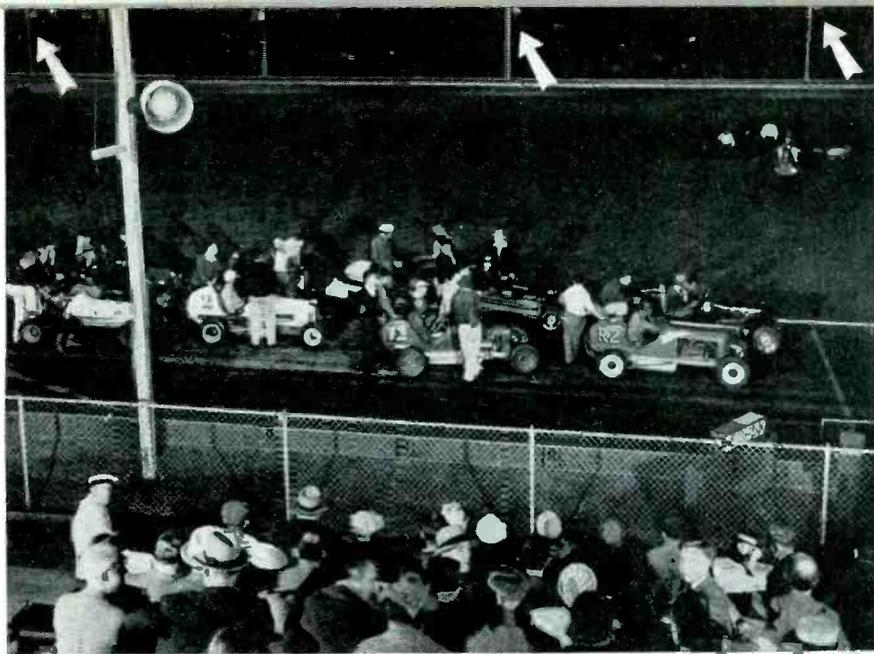
Over 380,000,000 RCA Radio Tubes have been purchased by radio users.



**18 LEADING SET MANUFACTURERS
HAVE ENDORSED AND ADOPTED THIS PROGRAM!**

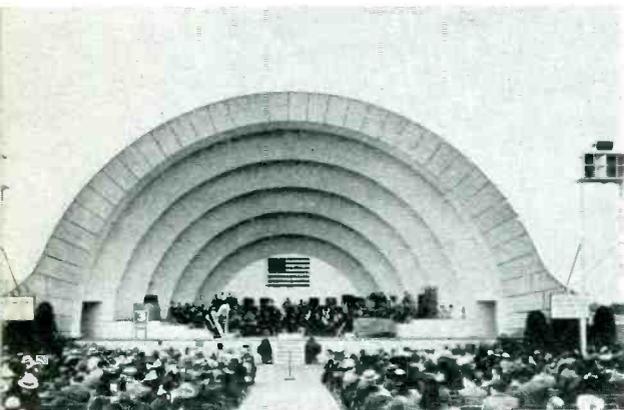
- ★ ADMIRAL ★ ANDREA ★ AUTOMATIC
- ★ DETROLA ★ DE WILD ★ EMERSON
- ★ FADA ★ FARNSWORTH ★ GAROD
- ★ GILFILLAN ★ HALLICRAFTERS ★ PACKARD-BELL
- ★ PILOT ★ RCA VICTOR ★ SENTINEL
- ★ SONORA ★ STROMBERG-CARLSON ★ WURLITZER



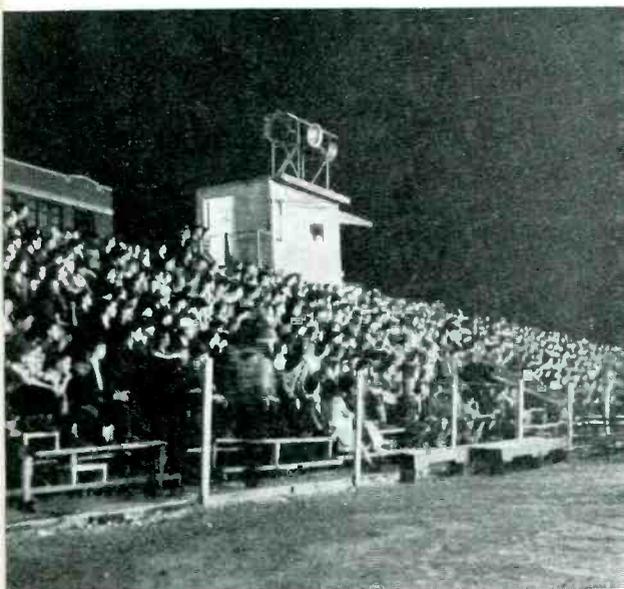


MIDGET RACES USE GIANT P.A.—The announcing system at Castle Hill auto race track, Bronx, N. Y., employs 14 Atlas "Marine" type speakers. Huffine Sound Service had the job of installing these reproducers. Photo shows one mounted on pole (foreground) and arrows point to placement of others in background. In between races, P.A. is used for entertainment service

Selling **SOUND**



OUTDOOR SOUND—Pictured here is record crowd at Grant Park, Chicago listening to popular City sponsored concerts. To cover this vast audience and not have to resort to a multitude of speakers, the reproducing system employs two of the new Jensen type B full-range heavy-duty systems. Each unit consists of 2 high and low frequency speaker groups enclosed in a 32 multi-cellular horn



5-YEAR CONTRACT—The Carroll Radio Service, Coffeyville, Kansas, has had the contract to furnish sound to the City's athletic field for the last 5 years. Employs a Clarion 70-100 watt system, finds no difficulty at all in covering up to 5000 people at the games. Does it with 4 speakers mounted on top of press box

How To

THERE NEVER WAS and probably never will be, in the history of retailing, an item blessed with the ability to completely sell itself.

Radios, and phonographs, are "warm" for they can at least talk. When encased in period cabinets now definitely intriguing the mass as well as the class market they *almost* sell themselves. But it is still up to the store, and its sales-people, to provide that final "something" needed to put even such very attractive merchandise over.

And it is in connection with this final something that I make the following suggestions . . .

Getting Started

To start your promotion program for period cabinets after the pieces get to your store, lay out a selling plan that is based first on consistent plugging and second on determination to give this merchandise "everything you have".

From your point of view you may say, "that costs money" and you are dead right. However, what difference should that make if "it makes dough".

Period cabinets are not peanuts. Their contribution to your operation will be raising the unit sales check and upping the dollar volume. And results like these are the ultimate ambition of every retailer who is not in business solely for his health.

Start by training your sales clerks along these lines.

Sales Training

Give your salespeople all the selling facts about period cabinets. Give them ammunition with which to sell customers. Give your sales people *inducement* to step up sales to period cabinets. And don't forget about inducements to sales-people in *other* departments who can steer customers over to radio department if they know that an extra dollar commission awaits this cooperation.

Floor Display

Step floor display into high speed. Period cabinets are sold on the basis of appearance in the home. That

Promote PERIOD CABINETS

By H. L. WEISBURGH *Director of Sales,
Brunswick Radio & Television Div., The Mersman Bros. Corp.*

is exactly the way they should be displayed on your floor.

The Paine Furniture Company of Boston has achieved the ideal selling atmosphere by building an individual display background for each of its period cabinets, using space most retailers lament about.

Around every ceiling-support post four individual settings for period cabinets were developed through the inexpensive use of beaver board partitions, as illustrated.

An idea like this, the idea of portraying your customer's home as it could look with a period cabinet, works magic.

Key Traffic Spots

How about the key traffic spots in your store, such as that lone spot near the entrance, near the elevators, or the entrance to the credit department? They can work too.

Have your carpenter put together a jumbo picture frame, and paint it antique gold. Raise a period cabinet on a platform so that it is centered right behind and within the frame. And then drop a rich velvet curtain in back of the cabinet.

Ideas like this lurk deep within the framework of every display man. Give one the signal and he will go to town in giving your floor life, and your sales people more customers to work on.

Signs

Support your period cabinet department with plenty of interior store promotion signs.

Your elevator, restaurant, credit department, street floor, are only a few of the many traffic centers waiting to be used.

Every department in your furniture and radio section should tell customers that they can now buy radio phonograph combinations in

period cabinets. If you don't tell them in these ways customers will continue to go through your store oblivious to the beautiful cabinets you thought they knew about.

Advertising

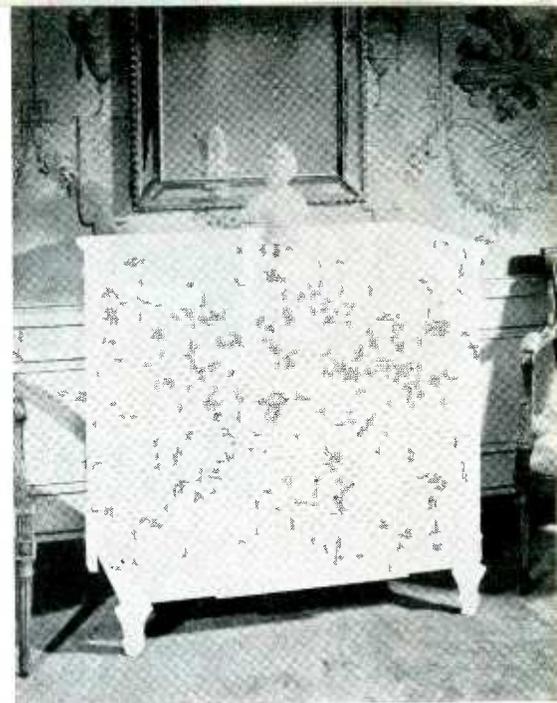
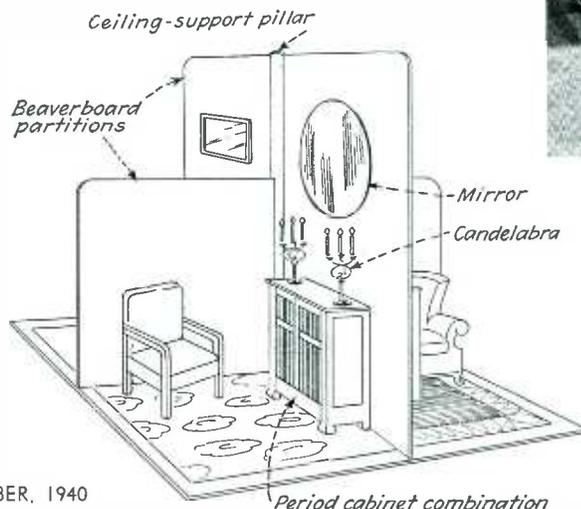
Every retailer agrees "advertising is a wonderful thing" but few ever do anything about it.

First plan it. Your charge account mailings are a marvelous 'free ride' for an enclosure announcing a new period cabinet department. It is so simple an idea that you ought to do something about it—*Now!*

Give your period cabinets the gun with small space newspaper advertisements run once a week. Repetition of an idea in newspaper advertising builds sales fast.

What about spots and station breaks on radio? Call in your radio station, not the biggest station but that small station that you think is so unimportant. They usually strike at the local interest of Mrs. Consumer. Ask the radio station salesman to prepare some sample spot announcements with a tie-in signature of a symphony which should be repeated to build recognition for your store name and

(Continued on page 60)



BACKGROUND'S Half the Battle

Can you visualize anything but authentic furniture pieces adequately filling these yawning gaps? You can't . . . illustrating the extreme effectiveness of homelike "sets" in period cabinet display



SPACE NO LONGER WASTE—Here's the way Boston's Paine Furniture uses ceiling-support pillars as the focal points of "cloverleaf" radio-phonograph combination displays

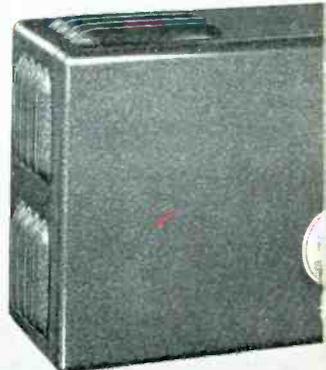
PHILCO World's Auto Radio Manufacturer . . . A **NEW AUTO RADIO FOR 1941**



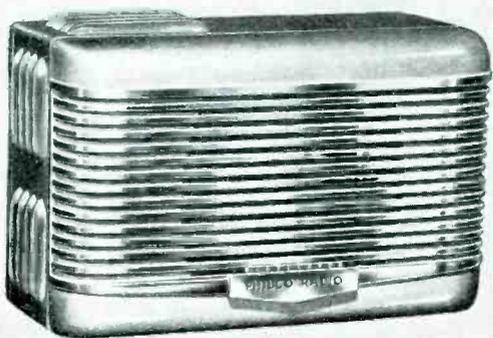
AR-10. Attractive, rugged one-piece case finished in beautiful Crystal Green. Fits snugly under the instrument panel of any car. 6-tube Superheterodyne with Built-in Speaker and Illuminated, Easy-to-read Dial. The finest low-priced auto radio ever offered . . . **\$19⁹⁵**



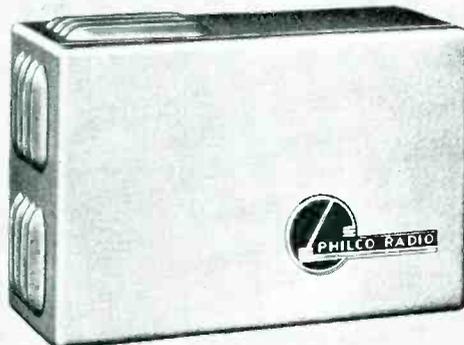
AR-40. Single-unit Superheterodyne in a smart new case finished in Tan. 6 tubes, powerful Built-in 6-inch Speaker. Separate Control Unit with 2-point Tone Control, Illuminated Dial and Plate to match any car. Fine all-around performance. A big value. **\$29⁹⁵**



AR-45. Two-unit Superheterodyne finished Tan Case with Yellow Choice of separate 7-inch Grille or Dash Speaker. Separate Control Unit with 2-point Tone Control, Illuminated Dial and Plate to match any car.



AR-50. Single-unit Superheterodyne in the new Crystal Green Case with Chrome Trim. 6 tubes, powerful Built-in 6-inch Speaker. Separate Illuminated Control Unit with new tuning convenience — left knob controls volume and tone, right knob tunes all stations or acts as push-button for 5 favorite stations. Plate to match any car. Only . . . **\$39⁹⁵**



AR-55. Two-unit Superheterodyne in Crystal Green Case with Yellow Ornament. 6 tubes. Choice of separate 7-inch Grille Speaker or Under-Dash Speaker. Separate Illuminated Control Unit — left knob controls volume and tone, right knob tunes all stations or acts as push-button for 5 favorite stations. Plate to match any car. Superb tone and performance. **\$44⁹⁵**



AR-75. De Luxe two-unit Superheterodyne 8 tubes. Separate 8-inch Under-Dash Speaker. Both set and speaker finished in Crystal Green with Chrome Trim. Pull Beam Output. Separate Illuminated Control Unit with Single Push-Button for 5 favorite stations, 3-point Tone Control and Plate to match any car.

Largest Announces RADIOS

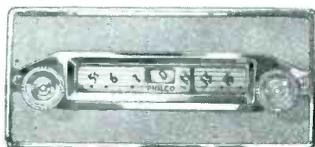
THROUGH all the years that Philco has maintained overwhelming leadership in home radio, Philco has also been the world's largest manufacturer of *automobile radios*. Today, the great majority of radios operating in the cars of America have been manufactured by Philco.

Through all these years, Philco has *pioneered* the development of automobile radio. From its very beginning, Philco research and engineering, through intimate contact with the leading engineering brains of the automobile industry, have brought the auto radio to its present state of perfection.

Not only Philco Auto Radios but *all* auto radios are better today because of the original ideas that Philco research has created, the difficult problems which Philco engineering has solved.

And now, Philco announces, for sale through the radio and automotive outlets of the country, the greatest line of auto radios it has ever produced... the simplest, most flexible and most profitable proposition ever offered to the auto radio dealers of America.

Control Plates to Match the Panels of ALL Cars ...AT NO EXTRA COST!



Philco offers you for 1941 an extremely simple and flexible control plate proposition. The controls for all models are exactly the same size and shape. You have a choice of 64 mounting plates that fit into the instrument panels of practically every car from 1938 to 1941... or, the Philco Universal Under-Dash Mounting which

fits under the instrument panel of *any* car.

Your choice of any plate to fit any car is included in the list price of every Philco Auto Radio... *no extra charge for matched installation!* And, in addition, the installation itself has been tremendously simplified. Easier to stock; easier to sell; easier to install!

Speakers to Mount in Grilles of All Cars

The Philco Auto Radio models with separate speakers are also supplied to permit a "factory fit" in any car. For cars equipped with a speaker grille, a speaker is supplied that fits back of the grille. Or, if desired, a speaker in a separate housing to be mounted under the dash.

In price, style, tone, performance and ease of installation, Philco offers you for 1941 the greatest values in the auto radio market and bigger opportunities for profit than ever before. Get the full story from your Philco distributor now.

New! Exclusive! Short-Wave Tuner

A brand-new accessory, invented by Philco engineers, that makes a short-wave radio out of any 1941 Philco Auto Radio (except AR-10)! Adds two tubes and four short-wave tuning bands to the set and enables users to enjoy powerful American and Foreign Short-Wave reception. Tunes in programs by short-wave in spots too far or too noisy for good reception on standard bands. A sensational PLUS for Philco dealers. **\$20**
Only Philco has it! Only...

one in a beautifully ornament. 6 tubes. speaker or Under-Dash Mounting. **\$34⁹⁵**

heterodyne with Under-Dash Speaker. Refreshing Ludwig-R. F. Stage Push-Button Control. **\$59⁹⁵**

PHILCO ALL YEAR 'ROUND

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

The RADIO MONTH

REPLACEMENT TUBE PRICES rapped about 4½ per cent (weighted average) the first of this month while the price of original equipment "bottles" to set makers dipped 2 per cent. The trade thus gets a few pennies more cash-money for over-the-counter sales while at the same time receiver manufacturers corral a cut which helps counterbalance rising costs on most other accessories and parts.

SPEAKING OF TUBES, there seems to be a definite trend toward design of more 6, 7 and even 8-tube ac-dc table type receivers. Public demand for better performance, industry desire to raise average unit sale even in the compact brackets seem to be the reason.

TUBE EXPORT BUSINESS formerly done by Holland's powerful Phillips has been brought to a virtual standstill by the war. We understand that the Dutch firm has taken offices in New York, is trying to get American tube makers to supply tubes bearing its well-known label so that foreign replacement business may be retained.

AMATEUR EQUIPMENT SALES have apparently taken one flush to the jaw, "ham" operators between the ages of 21 and 35 apparently hesitating to spend more dough when they can't be sure they'll be home to enjoy it a year or so from now. One of the nation's largest mail-order houses is understood to be liquidating its amateur gear department. Communication receiver sales, on the other hand, are holding up nicely nationally as many non-amateur consumers are buying such sets to listen direct to European war news. This accounts for a tendency among broadcast set makers to slick up their allwave job bandsread systems.

8,000,000 PUSHBUTTON SETS in use? We're told by manufacturers that this is about right and, if true, here's an indication of about the number that will have to be re-set when broadcast frequencies change next March.

NUMBER OF RADIO-EQUIPPED PEOPLE rather than "number of radio-equipped homes" may be the vital statis-

tic of the future. . . . What with three-way portables being pushed right through the winter, the possibility that personal portable tube types may make some major changes in all portable business next year and a proposed industry drive for "a radio for every American."

ONE INTERESTING TREND in the set business is the tendency of certain manufacturers to produce several lines, for distribution through different yet distinctly radio channels. There are, if this is not clear to you, lines for radio dealers of all types, lines merchandised largely by music elements, lines for big department stores and chains, lines for servicemen.

TREND TO MAHOGANY is noted in certain parts of the country. Walnut has been king in the set business for many a long year and, we think, will continue to be. But not to the extent it has been in the past. More manufacturers are expected to offer a choice of woods.

INTER-COMMUNICATORS, not much talked about since their early debut, are once more coming into the limelight. One big set maker thinks he has the design answer, is about to give communicators a healthy push. A sound specialist long a leading factor in the communicator business thinks he sees a new distribution approach. And a third company reports good trade response to a combined radio-communicator.

HOME RECORDING parts and accessories are moving well over counters, particularly in the East where turntables, cutting-heads et al. are getting quite a consumer play. Experimenter interest is, clearly, there. Yet complete combination instruments including home recording have not yet reached the sales peak confidently expected in many manufacturing quarters. Perhaps the feature has not yet had time enough to really click. The weeks ahead, just before Christmas, will provide a real test of the feature for average consumer use.

RECORD RUMOR is that some important change in discs is imminent. Size? Price? Distribution? We haven't, to date, been able to run down any facts. So far as we are concerned . . . it's still a rumor.



C. L. (CHET) WALKER—Just appointed assistant chief engineer of Utah Radio Products Company. Comes to Utah with many years of radio engineering experience

FM Gets Green Light

Government Grants Licenses for 15 Stations

WASHINGTON—The final "Go" signal for FM (frequency modulation) was given by the Federal Communications Commission on Oct. 31st in authorizing 15 applicants geographically scattered throughout the nation to engage in this new type of broadcast on a commercial basis as soon as they are able to do so.

"The granting of these licenses by the Commission," commented Chairman James Lawrence Fly, "marks an important milestone in the continued advance of the radio industry."

The remainder of the more than 50 applications for FM commercial operation on the high frequencies will be acted upon at the earliest opportunity. The locations of these prospective pioneer stations follow:

DETROIT—The Evening News Association
LOS ANGELES—Don Lee Broadcasting System
BATON ROUGE—Baton Rouge Broadcasting Co.
SALT LAKE CITY—Radio Service Corporation of Utah
CHICAGO—Zenith Radio Corporation
MT. WASHINGTON, N. H.—The Yankee Network
MILWAUKEE—The Journal Co.
NEW YORK CITY—National Broadcasting Co. William G. H. Finch, Marcus Loew Booking Agency
EVANSVILLE, IND.—Evansville On the Air, Inc.
BINGHAMTON, N. Y.—Howitt-Wood Radio Co., Inc.
BROOKLYN, N. Y.—Frequency Broadcasting Corp.
COLUMBUS, OHIO—W B N S, Inc.
SCHENECTADY, N. Y.—Capitol Broadcasting Co., Inc.

These authorizations embrace proposed FM service to millions of persons in widely scattered sections of the country, and are expected to expedite the rapid development of this new program art.

The FCC's starting gun is the last formality in a succession of events that began last March with a public hearing. In

On the Newsfront

May the FCC announced that 35 channels between 43 and 50 megacycles were being assigned to regular commercial FM service. "On the basis of testimony by engineers of both the radio manufacturing and broadcast industries," states the FCC, "the Commission heralds the business debut of FM as inviting public demand for service and sets, which will have a stimulating effect on programming as well as on the purchase and maintenance of new equipment."

Call letters for the newly-authorized FM stations will be issued shortly.

Philco Announces New Sales Division

PHILADELPHIA—T. A. Kennally, Philco Corporation General Sales Manager, announced the creation of a new sales department to be called the Accessory Division. This division will be headed in Philadelphia by C. E. Carpenter as manager and J. M. Skinner, Jr. as assistant manager.

The new organization has been created to take care of the increasing sales volume in tubes, auto radios and dry batteries.

RTG Elects Officers

BOSTON—The Boston Chapter of Radio Technicians Guild held an election of officers recently. Emile Maginot was re-elected president, while the former librarian received the office of vice-president; S. DiRusso taking his place as librarian. The treasurer and secretary remain the same, Frank Kennes and Joseph Cabral.

RCA Aids Jobbers

"Know Your Stuff" Meetings Held In 3 Cities

CAMDEN—The latest scientific sales methods and the means developed by the RCA Manufacturing Co. to assist its jobbers and their salesmen in using them, were described in detail at a series of meetings held in the Philadelphia, New York and Boston areas.

Held the latter part of October, these "Know Your Stuff" meetings, as they have been christened, opened with a dinner at 6 PM and were concluded with a period of entertainment.

L. W. Teegarden, manager of the Tube and Equipment division, headed the delegation of RCA representatives having charge of the program of each meeting. D. J. Finn, advertising manager also took part.

1941 RMA Convention June 10 and 11

NEW YORK—The governing board of the Radio Manufacturers Association, in attendance at the Hotel Roosevelt, New York City, made preliminary arrangements for the seventeenth annual RMA Convention and Radio Parts National Trade Show in 1941 at the Stevens Hotel, Chicago.

The dates of June 10 and 11 were fixed for the Association's convention and banquet, and official RMA sponsorship also was again formally authorized for the annual Parts Show, in cooperation with the Sales Managers Clubs of Chicago and New York.



FATHER & SON, JOBBERS—Prominent parts distributor *George Barbey* (right) shown with his son *Carl* at recent N. U. distributor meeting in Reading, Pa.

Emerson Celebrates

Holds 25th Anniversary. President Traces Company's History

NEW YORK—At a 25th anniversary dinner meeting and entertainment held October 15th at Hotel Astor and attended by more than a thousand dealers in the Metropolitan market, Ben Abrams, president of the Emerson Radio and Phonograph Corporation, announced that the four millionth Emerson set had come off the assembly lines. The set, a red, white and blue model called "The Patriot," was termed "a radio industry expression of America's patriotic spirit."

In his opening address, Mr. Abrams traced the history of the company from the early days of phonograph and record production up to the present time.

To the dealers present at the meeting, Ben Abrams stated that in his opinion radio is still in its infancy and that no one today has sufficient imagination to foretell its future possibilities. He said that many new developments are being worked upon in the extensive Emerson engineering laboratories.

SEVENTEENTH BOARD OF DIRECTORS R.M.A. 1940-41

E. A. NICHOLAS	DAVID T. SCHULTZ	P. S. BILLINGS	DONALD MACGREGOR <small>Chair. Ampt. & Super Equip. Div.</small>	ROY BURLEW <small>Chairman, Tube Division</small>	H. E. OSMUN <small>Chairman, Parts Division</small>	PAUL V. GALVIN <small>Chairman, Set Division</small>	H. C. BONFIG	JAMES T. BUCKLEY
RAY H. MANSON	B. G. ERSKINE	OCTAVE BLAKE	W. R. G. BAKER <small>Director, Engineering Dept.</small>	J. S. KNOWLTON <small>President</small>	A. H. GARDNER <small>Chairman, Legislative Comm.</small>	A. S. WELLS	POWELL CROSLY, JR.	BEN ABRAMS
JAMES C. DALEY	RAY F. SPARROW	JEROME J. KAHN <small>Chairman, Credit Comm.</small>	E. A. SCHUPLER <small>Chairman, Membership Comm.</small>	JOHN W. VAN ALLEN <small>General Counsel</small>	BOND GEDDES <small>Exec. V. P. - Gen. Mgr.</small>	LESLIE F. MUTER <small>Treasurer</small>	ERNEST SEARING	G. W. THOMPSON



AT INDIANAPOLIS CONVENTION—Stewart-Warner's big-wigs and visitors at distributor convention and preview of its 1941 refrigerator line: (left to right) *Mr. Sawyer*, visitor; *James S. Knowlson*, president and board chairman; *Frank A. Hiter*, v.p. and general sales manager; *F. Schoelkopf*, visitor; *Lynn A. Williams, Jr.*, secretary; *Frank A. Ross*, senior vice-president; and *Charles R. D'Olive*, manager household appliance division. Visitors *Sawyer* and *Schoelkopf* with Bell Aircraft Co.

Television Conference

FCC to Confer with NTSC On Standards

WASHINGTON—The Federal Communications Commission will confer with the National Television Systems Committee early in January for the purpose of receiving a progress report on that committee's study of the television situation.

The Commission will hear the chairman of the committee, Dr. W. R. G. Baker and the various panel chairmen but will not call for recommendations as to whether standards should be fixed at that time.

The conference, which will not be in the nature of a hearing, will be held in Washington at a date to be announced later and will be open to the public.

The National Television Systems Committee was created on July 31, 1940 and has operated in cooperation with the Radio Manufacturers Association and the Commission.

Dr. W. R. G. Baker, chairman of the NTSC, stated recently at a meeting of the RMA at the Hotel Roosevelt, New York City, that the committee hoped to complete the work by January 1, 1941. Further reported that at the present time 3 panels have about completed their work and final reports are in preparation.

Thompson, Norge's New S. P. M.

DETROIT—The appointment of M. W. Thompson as sales promotion manager of the Norge Division, Borg-Warner Corporation, is announced by M. G. O'Harra, vice president in charge of sales.

His first experience in this field was with the original Majestic radio and refrigerator organization (Grigsby-Grunow Company) as assistant advertising and sales promotion manager, from 1928

through 1933. More recently, Thompson has been assistant sales manager with Farnsworth Television & Radio Corporation.

S-C Appoints Sales Rep.

ROCHESTER—William L. Mollands is Stromberg-Carlson's southeastern sales representative and is now calling on the trade in Alabama, Georgia, Florida and South Carolina. Mollands has been with S-C for the past five years and is a graduate of its sales and service departments.

Changes Name

CHICAGO—Federal Sales Co. has changed its name to Federal Screw Products Co. This is a change in name only and does not affect the personnel or policies of the company. Address is 24-26 So. Jefferson St., Chicago, Ill.



ON TOUR—*H. L. Shortt*, president of Transformer Corp. of America visited Frisco where this photo was taken in front of San Francisco Radio Exchange, prominent Pacific coast sound equipment and parts company. Left to right: *William Belfer*, chief sound engineer of Exchange; *C. R. Strassner*, Clarion's California rep; *Shortt*, and *Russ Hughes*, general manager for Exchange

New Radiola Line for Service Dealers

CAMDEN—A new series of Radiola receivers, made by RCA Manufacturing Company, especially designed and built for needs of the service dealer, is being announced to parts distributors and servicemen throughout the country. The presentation is being made by John C. Marden, Manager of Radiola Sales for the RCA Manufacturing Company, at informal dinner meetings in key cities of the East and Midwest.

Marden's message to the distributors, whose entire organizations have been invited to attend the meetings, covers the merchandising, advertising and promotion of the new instruments. In addition, he is telling how Radiola ties in with the activities of parts jobbers to produce substantial increases in volume with no upping of overhead. The program's first step, he points out, is making the service man "sales minded."

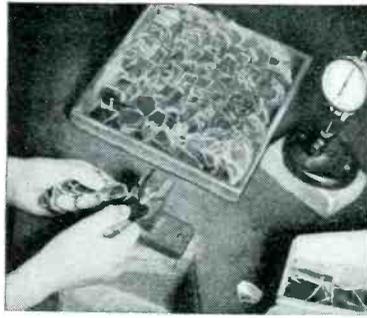
The Radiola series, includes six AC-DC table models in the price range \$9.95—\$19.95, a battery-operated, AC-DC portable, and a record player attachment.

Magnavox Names District Mgr.

FORT WAYNE—John F. Wirtz has just been appointed district manager for New York City and eastern New York state according to an announcement by L. M. Sandwick, Magnavox sales manager. For the past seven years Wirtz has covered the eastern market for RCA Victor.

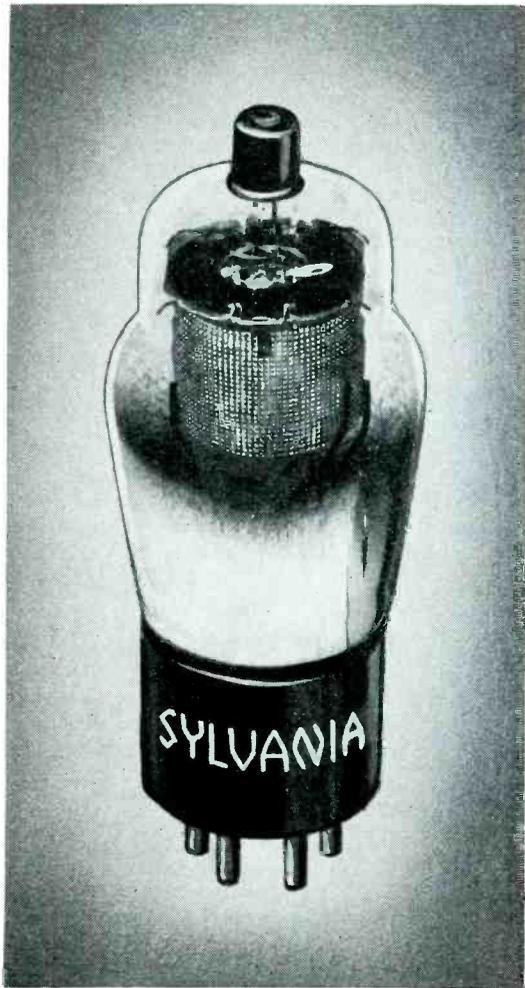
Sonora Names Adams

CHICAGO—Ben Freund, vice president in charge of factory operation of Sonora Radio & Television Corp. just announced the appointment of Robert Adams as works manager. Has been associated with the radio industry for many years. Last post was Radio Superintendent of Stewart-Warner Corp.



WE'RE VERY CAREFUL ABOUT

OUR $H_2KAl_3(SiO_4)_3$



$H_2KAl_3(SiO_4)_3$ (mica to you) is used extensively in insulating against heat and electricity. In Sylvania Radio Tubes it also prevents vibration of wires and elements. Mica makes a good insulator and support when treated right and used right . . . and that's why Sylvania splits and fabricates its own.

By doing so, Sylvania is assured of close control over this important tube part. Each tough cleavage flake must have the proper flexibility and elasticity. Each must be only the 8 to 15 thousandth inch leaf that makes a good support and insulator. We know the ones in Sylvania Tubes are right—because we make them that way.

Our careful handling of mica is but one of the many special operations which guard the quality of Sylvania Radio Tubes and insure satisfied customers for you. Hygrade Sylvania Corporation, Emporium, Pa.

*Also Makers of Hygrade
Lamp Bulbs and Miralume
Fluorescent Light Fixtures*

SYLVANIA

SET-TESTED RADIO TUBES



SYLVANIA CONFAB—M. F. Balcom, vice president (left) and P. S. Ellison, sales and advertising manager, talk over Hygrade Sylvania's radio tube sales plans and prospects for 1941



TRIPLET
MODEL 1620

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 positions 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



MODEL 1612

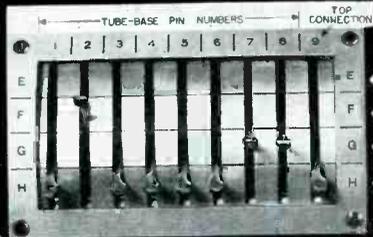
Impressive Counter Tube Tester . . . RED•DOT Lifetime Guaranteed Instrument with 6" GOOD-BAD SCALE . . . Illuminated Speed Chart . . . Sockets include Loctals, Bantam Jr. and new Midgets. Provides for tubes with filament voltages from 20 steps from 1.4 to 117 volts. Dealer Net Price . . . \$29.84

MODEL 1270

Model 1270 is an advanced electrical circuit analyzer that shows the wattage consumption, amperes and line voltage of all household appliances including electric ranges under actual operating conditions. Dealer Net Price . . . \$29.83



NEW LEVER SWITCHING



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. **\$37.84**
Dealer Net Price . . .

For full cooperation with the National Defense Program, Triplet engineering and production facilities are being rapidly expanded to continue the service and delivery to which our trade is accustomed.

WRITE FOR CATALOG . . . SECTION 2011 HARMON DRIVE
THE TRIPLET ELECTRICAL INSTRUMENT CO.
Bluffton, Ohio

Preferred Tube List Shortened

RCA reduces group established
1 year ago from 36 to 31

CAMDEN—The number of radio receiving tubes covered by RCA's preferred type program, inaugurated just one year ago in the interest of greater economy and higher quality, has just been reduced from 36 to 31. Dropped from the preferred columns are Class B audio types 1G4G, 1C6G and 6N7G, type 2A3 and the 6J5GT (Type 6J5 is continued). Substituted for types 12SJ7 and 12C8, simultaneously, were types 25L6GT and 25Z6GT.

Questioned concerning the effect of the preferred tube type program upon his firm's own business and upon the industry in general, manager of RCA's tube and equipment division L. W. Teegarden stated that . . . "Some order has come out of the chaos in the tube industry in the past year. Nearly a score of radio manufacturers have supported the preferred type program by designing their receivers around preferred type tubes. Results have been important in lowered costs all along the line, in better and more uniform tubes. This is to the betterment of the manufacturer, distributor, serviceman and public alike."

Teegarden further stated that nearly three quarters of all receiving tubes currently produced by RCA are concentrated in the preference list, that fully 72 per cent of the Harrison, New Jersey plant's production was at present on 8 types. He estimated that 5,000,000 of the receivers made in 1940 would employ preferred type tubes, said that in past years new tube types introduced by all tube makers averaged 140 while in 1940 it appeared likely that this figure would be cut in half.

Rock-Ola Appoints Dist.

CHICAGO—The Rock-Ola Manufacturing Corp. has just appointed the Television Maintenance Co., 220 W. 42nd St., New York City its metropolitan distributor. A. V. Gartner is head of the company and will promote the new Rock-Ola instruments in Greater New York and northern New Jersey territories.

A preview of the complete line of console and table models for the Jersey trade was held the latter part of October at the Newark Athletic Club, Newark, N. J. In addition to Gartner, and two Jersey sales reps. (E. Thornton Rice, jr. and Louis W. Gartner, jr.), R. F. Laycock of the home office was on hand to assist in pointing out the story of merchandising cooperation, point-of-sale display and other items.

Philco Promotes All-Year Portables

PHILADELPHIA — Larry Hardy, Philco Corporation Manager of Compact Sales, recognizing the change in sales appeal of the portable radio from a spring-summer item to year-round seller announced that they have prepared a special dealer campaign with the key theme, "Philco Portables Now Offer Fall And Winter Profits."

Representatives Hold Election

MacDonald Re-elected President

PHILADELPHIA—The "Representatives" held their sixth annual election of officers and announced the following elected: Sam MacDonald, of Philadelphia, president; Mathew Camber, vice president and David Sonkin, secretary-treasurer.

Appointed by the President: Board of Governors; D. R. Bittan, Perry Saftle, David F. Tobias, Ben Joseph and John Kopple. On Membership Committee; D. R. Bittan, Adolph Friedman, Leo Freed, John M. Forshay and Howard P. Smith. Entertainment Committee; C. B. Cooper, Bob Smith and Jules Sussman. Publicity; Ben Joseph.

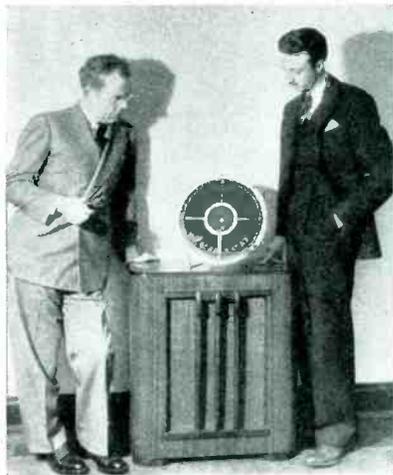
New England and Southwestern regional chapters were instituted and the application of a third one, the Dixie chapter is now pending. Officers of the New England chapter are Ernest Seyd, president, Harry Gerber, secretary-treasurer. Southwestern chapter headed by George E. Anderson, president; and J. E. Earl, vice-president.

Philco Reports on Car Radios

PHILADELPHIA—C. E. Carpenter, manager of auto radio sales for Philco Radio and Television Corp., reports that over the past 10 years Philco has produced and marketed approximately 3,000,000 auto sets. Maintains a separate and complete engineering staff, located in the center of the automobile manufacturing industry, which is devoted exclusively to the design and development of motor car radios. By means of this staff, it has kept pace with the progress of car design.

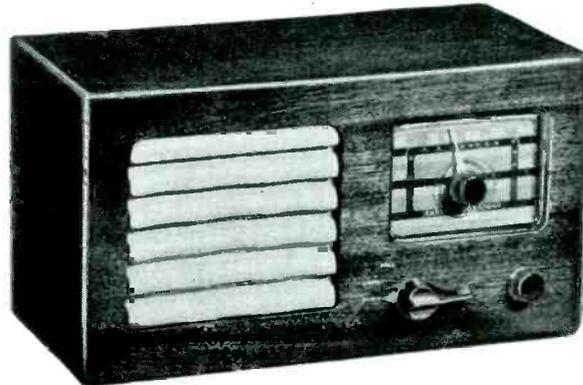
Opens Branch Office

MOUNT VERNON—Ward Leonard Electric Co. announces the opening of a branch office at 183 Main St. East, Rochester, N. Y. To be managed by J. K. Savage, sales engineer.



FOR DISTRIBUTORS—Jensen's v.p. and sales manager, Tom White with Ralph Glover (right) inspecting and approving new Jensen Dual speaker counter display. Keynotes new line of inexpensive extended-range speakers

Paging System With Radio



Radio
Inter-Call
Pager

Model 411

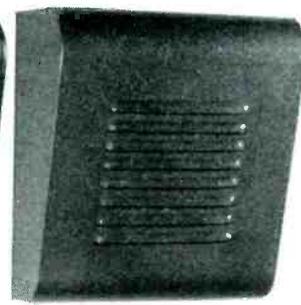
Radio DORAFONE is now available for commercial use. For average installations its output of 2 watts is sufficient to drive speakers as shown below.

To accommodate additional speakers and where greater coverage is required, the Booster unit is used. From 1 to 100 speakers can be operated in conjunction with boosters thus eliminating impedance matching and power output requirements.



Model 10 D

Wall mounting type cabinet constructed of walnut veneers and using a 10" P.M. dynamic speaker, capable of handling 7 watts. Sizes 13"x14"x7" Impedance—5 ohms (Voice coil).



Model 8 MD

Wall mounting type cabinet constructed of steel with modern louvre grill using an 8" P.M. dynamic speaker capable of handling 5 watts. Size 10 3/4"x12"x6" Impedance—5 ohms (Voice coil).



Model RD

Bell type bronze finish baffle suitable for desk or outside application. Equipped with 50 ft. cord. Speaker size 5" P.M. Impedance—5 ohms (Voice coil). Diameter of Bell 6", Depth 3 1/4".

BOOSTER Model 5W



No installation is too large for the Radio DORAFONE when Booster units are used. Each booster drives its own speaker, requiring negligible power from the Radio DORAFONE.

The Booster incorporates its own power supply and uses 2 beam power tubes giving an output of approximately 5 watts. Its volume control allows independent volume setting for each speaker. It can be placed at the master unit, speaker, or any location in between.

Size 2 3/4"x7 1/2"x5"—Input—voice coil line—load negligible. Output impedance 5 ohms. 105 to 125 V—AC or DC.

Write or Wire for Complete Details

Setchell Carlson, Inc.

2233 University Ave.

St. Paul, Minn.

New York Sales:
BEN JOSEPH
258 Broadway
New York, N. Y.
MICHAEL WOLFE
1530 E. Genesee St.
Syracuse, N. Y.

Export Sales:
HARRY J. SCHEEL
Merchandise Mart
Chicago, Ill.
Cable Address
"Airvoice"

California Sales:
E. J. WATKINS
580 Market St.
San Francisco, Cal.
M. D. EALY
1425 S. Flower St.
Los Angeles, Cal.

Mallory Releases Sup. No. 12

INDIANAPOLIS—Mallory-Yaxley Radio Service Encyclopedia, supplement No. 12 to the 3rd edition, dated September, 1940 is devoted to the Fundamentals of Television Engineering. Contained in this 38-page supplement are numerous illustrations, diagrams and charts.

Frigidaire Ups Allen

BALTIMORE — Frigidaire Division, General Motors Sales Corporation, announced today that Charles J. Allen, formerly an assistant sales manager in the eastern area for the company, has been appointed manager of the company's Baltimore-Washington office.

The appointment of Allen, according to the announcement, followed the resignation of H. L. Harbison who has been manager of the Baltimore branch for four years. Harbison resigned to devote his time to personal affairs.

Clarostat Names S.E.

NEW YORK—The appointment of I. J. (Jim) Youngblood as sales engineer in the Indiana territory is announced by Clarostat Mfg. Co., Inc., Brooklyn, N. Y. As one of the real old-timers, his radio career dates back to the Radio Communications service of the U. S. Navy in the first World War. Youngblood will work out of temporary quarters 1002 W 5th St., Marion, Ind.

Emerson Dist. See "Patriot"

NEW YORK — Emerson Radio & Phonograph Corp. distributors in Minneapolis, Omaha, St. Louis, Dallas, New Orleans and Atlanta saw the firm's new "Patriot" and other models last month when sales manager Charles Robbins flew to these key sales centers, unveiled new merchandise.

Sold in color groups of three to facilitate effective window display, Patriot models recorded immediate heavy sales in these territories, according to Robbins. Initial orders plus early re-orders taxed production to a point requiring distribution of the red, white and blue sets on a sectional basis.

RCA Transfers Brisbin

CAMDEN—M. M. Brisbin, for 12 years associated with RCA installation and service division and well known in the radio industry, has been transferred to the Advertising Department at Camden headquarters to handle test equipment advertising and sales promotion, according to D. J. Finn, Advertising Manager.

In addition, Mr. Brisbin will also edit "RCA Radio Service News," a nationally-circulated journal for servicemen. His duties place him in the Tube and Test Equipment Division of the advertising department under the direction of John P. Allen.

Pilot Announces Competition

NEW YORK—The Pilot Radio Corp. is sponsoring a new competition, with awards, over its Dorothy Thompson Sunday night broadcasts, Stations WOR, Newark and WAAB, Boston. Starts Nov. 17th and runs till Sunday Dec. 1st. Object is to secure a name for its new model BI receiver. Pilot is furnishing dealers with display and facts.

Distribution News

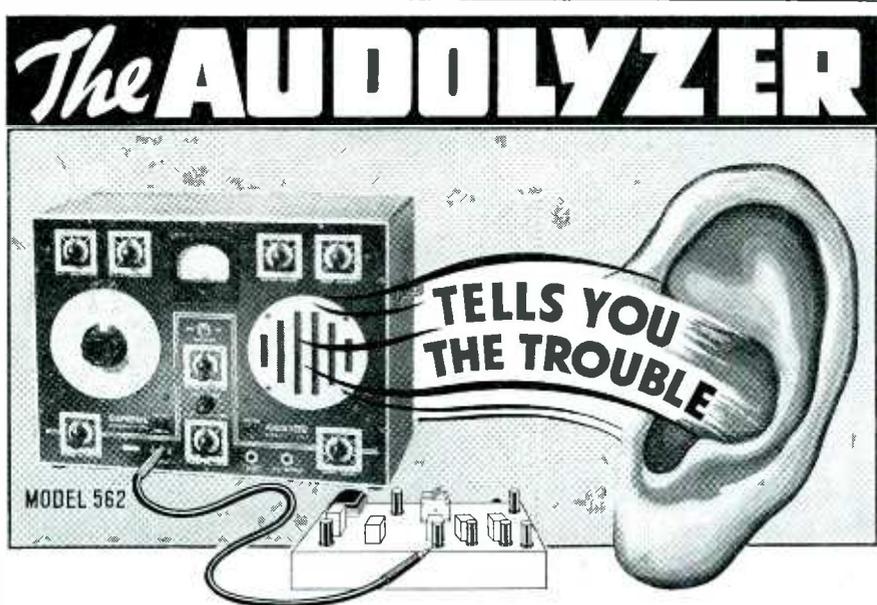
JANETTE—Herbert J. Baer, 430 W. Franklin St., Richmond, Va. just appointed district sales agent for state of Virginia by Janette Mfg. Co., Chicago.

ADMIRAL—The following new Admiral distributors were appointed by Continental Radio and Television Corp; *The Cavanaugh Co.*, 928 W. Royen, Youngstown, Ohio; *Hyland Electric Co.* 700 W. Jackson, Chicago, Ill.; and *Hardware & Supply Co.* 475 High St., Akron, Ohio.

CLARION—The Transformer Corporation of America announces the extension of the activities of their sales representative, *Harold Weiler*, to include the New York and New England territories.

EARL WEBBER—O. P. (Opie) Smith has been appointed sales representative in Chicago, northern Illinois and southern Wisconsin by the Earl Webber Co.

KELVINATOR—A. A. Schneiderhahn Co. have been appointed distributors in Iowa by the Kelvinator Division of Nash-Kelvinator Corp. Headquarters of the new distributor are at 11th and Walnut Sts., Des Moines.



How do your customers tell you about their radio troubles?

The radio audience is made up of LISTENERS, and it is quite natural that they will describe the trouble in terms of what they HEARD or did not hear from the loudspeaker. Such phrases as "My radio has suddenly started sounding mushy and indistinct," or "I have a noise in my radio that sounds like a buzz" are some of the typical expressions heard frequently by members of the radio service profession.

What could be more simple than to solve the problem with an instrument which actually TELLS YOU THE TROUBLE? By using only ONE PROBE, the AUDOLYZER will tell you whether the signal is present or absent, clear or distorted, amplified or reduced at any point in a radio receiver. At the same time that the meter is indicating the gain or loss, the speaker of the AUDOLYZER will tell you if the tone is pure and clear or full of hum and distorted. It makes no difference where the trouble is, the AUDOLYZER will indicate the amplitude and quality of the signal from the antenna to the speaker of any A.C., D.C., A.C.-D.C., or battery operated radio receiver. Whether it is a complex superheterodyne or a simple T.R.F. circuit, the AUDOLYZER can trace the signal and localize the trouble in a minimum length of time. Reduce those tough and aggravating service problems down to "just another simple job." The AUDOLYZER eliminates guess work and helps you make a good profit on every job.

The SUPREME MODEL 562 AUDOLYZER is a COMPLETE dynamic signal tracer and analyzer. It not only indicates the existence or absence of the signal but it checks for both the amplitude and quality AT THE SAME TIME. The AUDOLYZER has a sensitive output meter as a reference level

indicator for gain measurements and a special amplifying system and speaker for checking distortion, hum, frying noises, or general condition of the signal. Provisions are included among the functions of the AUDOLYZER for checking all D. C. voltages without disturbing the operation of the receiver. Seven carefully selected ranges (0/1/3/10/30/100/300/1000) for testing D.C. potentials in power supply, plate, screen, grid, A.V.C., and A.F.C. circuits. The meter is the center scale type with "plus" and "minus" readings either side of the midpoint which eliminates the necessity of reversing the leads for polarity changes. All D.C. voltage ranges have an input impedance of 15 megohms. For continuity and resistance measurements the AUDOLYZER incorporates the popular ring-type OHMMETER circuit found in other SUPREME instruments. Resistances can be measured from 0.1-ohm to 20 megohms in five choice ranges of 200/2000/20,000/2 meg. and 20 megohms. The AUDOLYZER can be electrically divided into two sections so that you may use TWO probes for checking intermittent types of trouble. For monitoring the oscillator the AUDOLYZER may be tuned from 95 kc. to 14 mc. in five overlapping bands.

You will like the AUDOLYZER because of its amazing simplicity. In fact, more downright profitable, quicker diagnosing can be done with the AUDOLYZER than any other type of dynamic tester. The AUDOLYZER is a quality instrument at a price you can afford to pay—a complete instrument for DYNAMIC ANALYSIS, combining a signal tracer, audible monitoring system, vacuum tube voltmeter, ohmmeter, frequency meter, calibrated attenuator, for less than 22 cents a day on the world's easiest installment terms.
CASH PRICE.....\$78.50
Or \$8.50 Cash and
12 Monthly Payments
of \$6.49.

SUPREME

Dealer Helps



FLOOR DISPLAY—Colored in light gray, dark blue and orange, this display holds eleven of the *Westinghouse* table model radios. Built to last, of solid wood and a masonite background, it is 80 inches high, 52 inches wide and 18 inches deep.

COUNTER DISPLAY—Printed in brown, orange and yellow, latest display fits around the new, personal type *Sentinel* radio. 14 inches high and 11 inches wide.

DISC FOLDER—Recording blanks, playback needles, cutting styli and accessories that may be obtained from *The Recordisc Corp.*, 395 Broadway, New York City, are described in a folder recently announced.

DATA SHEET—Extended range high fidelity loud speakers are fully described in Sheet No. 199 from *Jensen Radio Mfg. Co.*, 6601 S. Laramie Ave., Chicago, Ill. The new type "J" dual speakers and 8 and 12 inch single speakers are featured.



STRIP TEASE—Shorn of its lower sound compartment grilles, upper sight compartment screen, this Mills "Panoram" juke-box that plays special *Jimmy Roosevelt*-produced sound movies was unveiled at a swank New York press party, invited many a reporter to shove his nose into the impressive "works"

Here's the one you have been waiting for!



This "different" Meissner Portable

PHONO-RECORDER

can bring YOU extra profits!

Whether you are a Jobber, Dealer-Serviceman or Sound Technician, this new Meissner Portable Phono-Recorder should be the means of putting extra money in your pocket!

Its outstanding high quality, professional appearance and operation, fidelity of recording and reproduction, facility and flexibility in handling all sizes of records up to 12"—plus its additional features including its use as an auxiliary P-A System for small groups, make its demonstration and sale almost a matter of form in many widely variant fields.

Housed in an attractive airplane-luggage case, only 16" x 17" x 7", this instrument is readily handled on any kind of job. Contains built-in, high-quality audio amplifier, complete with tubes; space for crystal mike and power cord inside case; record storage space conveniently placed inside demountable cover. Operates directly from any 110-volt, 60-cycle power line. Sturdy 6" dynamic speaker furnishes full volume output on reproduction or P-A use, without distortion.

Fully equipped with complete control equipment for making high-grade recordings—Volume Control, Tone Control, Selector Switch for Recording, P-A and Reproduction, Normal and Overload Indicators; provided with first quality magnetic cutting head and wide-range crystal pick-up. Furnished with combination hand-and-stand crystal microphone.

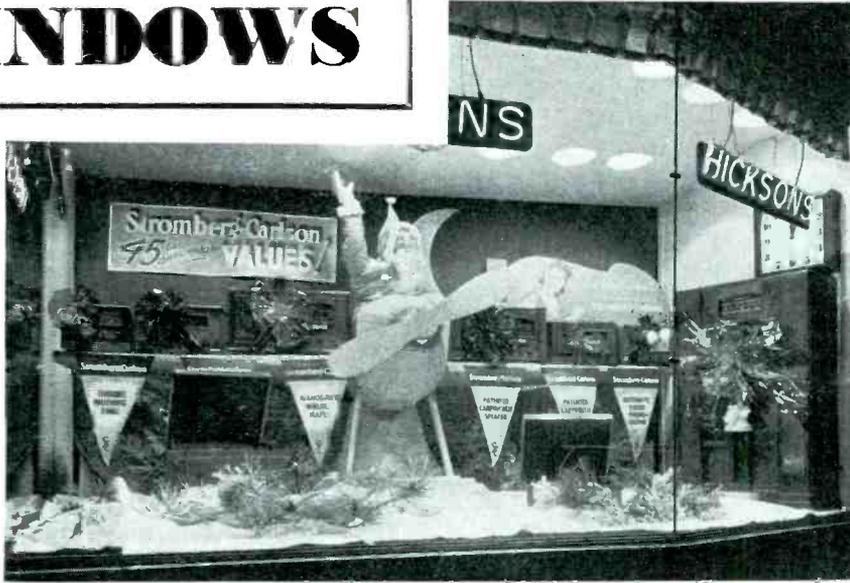
Nothing has been overlooked to make this unit the real leader of the field in quality performance! And yet the price has been held to an encouragingly low level—only \$59.50 list, subject to usual Jobber and Dealer discounts!

Write for Your Free Copy of the New Meissner General Catalog!

ADDRESS DEPT R-11



WINDOWS



Yule Window Display

DEALERS will find Hickson's Rochester, N. Y. last holiday season window display a good cue for their own Christmas traffic stopper. The modern version of St. Nick's reindeer substituted for a plane laden down with be-ribboned Stromberg-Carlson sets has immediate eye-appeal. Appropriate to this year's display is S-C's FM reception



In Tune With The Times

IN arranging this window display of Emerson's new "Patriot" receiver, Spear & Co. used a novel and attractive scheme in developing the red, white and blue theme. The back-drop is draped with red silk flanked on either side with white columns. Blue velvet is used in stage arrangement as well as on pedestals. Sets are also arranged for color scheme



For All Radio Fans

THE Terminal Radio Corp. New York dealer has taken complete advantage of his high window to attractively display records, receivers and parts. Photo shows how small parts and accessories are lined up at window front, plainly marked and price-tagged

MUSAPHONIC 20 Here is a new model introduced by G-E called the *Chippendale Chest*, a table-type offering only radio reception. Its chassis has 6 tubes, including a rectifier; a 5-inch reproducer; avc; audio power output of 4.5 watts. Tunes from 540 to 1600 kc, and 5800 to 18,000 kc. Provides for two built-in antennas. Measures 11 high, 17 wide, and 11 1/2 inches deep. Available in mahogany, walnut, or champagne finishes. Price ranges from \$50.00 up, according to customer requirements.



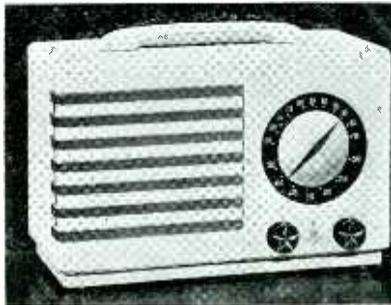
MUSAPHONIC 80 This *Sheraton* designed automatic phonograph console is a radio and automatic phonograph combination. Receiver has 20 tubes, including rectifier, plus an additional rectifier and a home recording indicator. Has twin speakers; three bands. Features the *roll out* record changer compartment which plays up to 15 records, of 10 and 12 inch sizes. Price ranges from \$595.00 to \$675.00, according to customer requirements. General Electric Co., 1285 Boston Ave., Bridgeport, Conn.



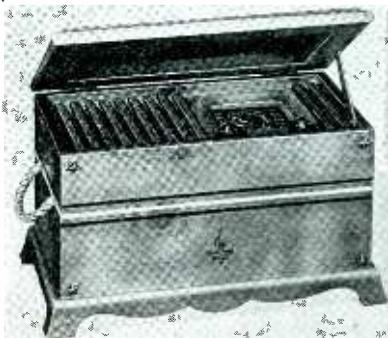
WILCOX-GAY A-93 Combination radio, automatic phonograph and home recording, housed in an attractive cabinet design in the modern motif. Has built in album storage compartment. Radio has 10 tubes, including level indicator; three gang condenser; 12-inch speaker. Twin band circuits for short-wave and domestic reception. List price \$169.95. Wilcox-Gay Corp., Charlotte, Michigan.



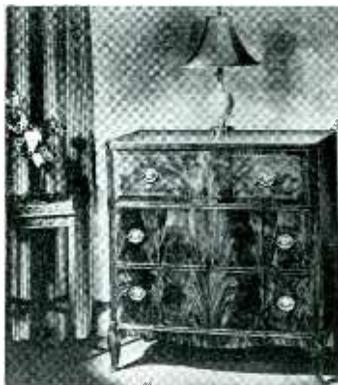
New Products...



EMERSON 400 Plastic table model, "The Patriot," is available in three basic colors—model 400-1, basic blue with white and red; model 400-2, basic white with red and blue; model 400-3, red with white and blue. A 5-tube receiver with large electro dynamic speaker, two watts output and a tuning range from 187 to 555 meters (540 to 1,600 kc.). List price \$15.00.

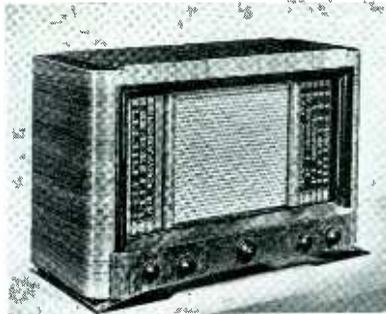


EMERSON 405 A five tube receiver housed in chest type cabinet of knotty pine in early American styling. Lid scientifically designed for sound deflection; authentic rope carrying handles. Measures 6 $\frac{3}{4}$ high, 10 $\frac{1}{4}$ wide and 6 $\frac{1}{4}$ inches deep. Tunes standard American broadcasts and police. List price \$19.95. Emerson Radio & Phono. Mfg. Co., 111 Eighth Ave., New York, N. Y.



CONCERT GRAND 807 English Regency styling console cabinet, with matched veneers in swirl, crotched and striped figures, houses a combination radio and automatic phonograph. Features a 9-tube superhet, 12-inch speaker, 6 pushbuttons. Equipped with built-in record album files. Plays fourteen 10-inch or ten 12-inch records. List price \$180.00. Stewart-Warner Corp., Chicago, Ill.

PHILCO 788T Designed for long distance, short-wave station reception this 11-tube superheterodyne has a new vertical design 8 band dial. Built to cover standard broadcasts from 540 to 1720 kc., and the full short-wave from 2.3 to 22 mc. Retail price \$150.00.



PHILCO 85T A 5-tube portable ac-dc or battery radio receives American and foreign short-wave stations, also American standard broadcast stations. Has push-pull a-f amplification and PM speaker. Newly designed case covered in Ostrich graining with smart cowhide leather edge binding; plastic bezel and grille. List price \$29.95, complete. Philco Radio & Tele. Corp., Philadelphia, Pa.



WESTINGHOUSE WR-288 Table type cabinet with 6-tube receiver has the streamlined waterfall front with heart walnut center and venetian-blind grille. Contains a 6-inch speaker, 5 pushbuttons, and covers 3 bands, 540-1500, 1500-4000, 5800-18,000 kc. Measures 10 $\frac{3}{4}$ x 19 $\frac{1}{2}$ x 8 $\frac{3}{4}$ inches. List price \$39.95.



STROMBERG-CARLSON One of the furniture fashions in this company's line is a group of occasional tables that are exact copies of famous period pieces. When the drop doors are closed, one never guesses them to be radios. Model 400N is an authentic Chippendale design in mahogany. Others are replicas of Colonial and Duncan Phyfe masterpieces. Stromberg-Carlson Tel. Mfg. Co., 100 Carlson Road, Rochester, N. Y.



STROMBERG-CARLSON 520PS An authentic Salem Chest design in swirl mahogany is this combination radio and automatic phonograph. It is equipped to receive both standard and short wave programs and to play ten or twelve inch records. Employs 12-inch speaker, and has 6 pushbuttons. Price \$175.00. Stromberg-Carlson Tel. Mfg. Co., 100 Carlson Road, Rochester, N. Y.

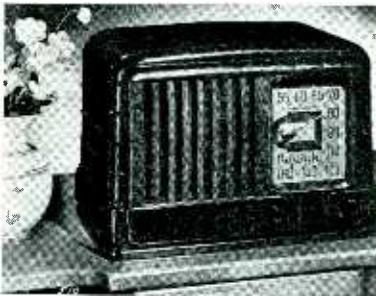


MOTOROLA 58F1 This table combination radio and phonograph plays 10 and 12-inch records. Features a 5-tube ac superhet; 5 $\frac{1}{2}$ -inch PM Dynamic speaker. Walnut veneer cabinet measures 15 X 12 X 13 $\frac{1}{2}$ inches. List price \$39.95. Galvin Mfg. Co., 4545 Augusta Blvd., Chicago, Ill.

ANSLEY The new FM addition by this company provides a separate 6-tube FM unit, built into the normal chassis, but having its own separate tuning dial covering the complete FM band. If present Dynaphone owners desire FM reception, they can return the instrument to the factory and at a cost of sixty dollars plus ten dollars for labor, the set will soon be returned with FM built in. Ansley Radio Corp., 4377 Bronx Blvd., New York, N. Y.



RADIOLA P-5 A new series of receivers, made by RCA Mfg. Co., especially designed and merchandised for the needs of the service dealer, includes six ac-dc table models in the price range \$9.95—\$19.95. This portable operates on self-contained batteries, or on 110-volt ac and dc power. It has 5 tubes and magnetic core I-F transformers.



RADIOLA 510 Table type 5-tube receiver in brown plastic cabinet. Features 6 tuned circuits, pentode beam power output, and 5-inch loudspeaker. RCA Mfg. Co., Camden, N. J.



SONORA KNF-99 Table combination phonograph is a 5-tube superhet tuning 535-1720 kc. Has built-in Sonorascope loop; 5-inch speaker. Phonograph has a 78 R.P.M. motor and plays 10 and 12 inch records. Housed in a walnut cabinet of matched veneers.



SONORA KXF-95 Combination radio and automatic phonograph console type housed in cabinet of walnut matched

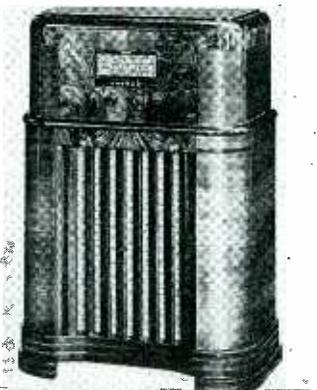
veneers. Six tube superhet tunes 2 bands. Plays eight 10 or seven 12-inch records. Sonora Radio & Tele. Corp., 2626 W. Washington Blvd., Chicago, Ill.



MAGNAVOX 5F Electrically operated phonograph mounted in a Berkeley console cabinet comes equipped with two speakers; undistorted output of 26 watts. Contains an intermixing, automatic record changer. List price \$225.00.



MAGNAVOX Console combination radio and automatic phonograph housed in a Georgian designed cabinet. Has radio and record reproducing range of 60 to 7500 cycles; equipped with 12-inch speaker. Plays up to fifteen records, 10 and 12-inch intermixed. Right portion of the lid is stationary so decorative accessories need not be removed. Available in walnut, mahogany and amber mahogany. List price \$198.50. Magnavox Co., Inc., Ft. Wayne, Indiana.



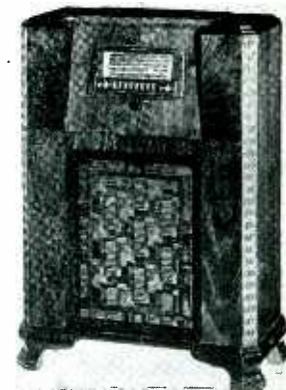
HOWARD 718 A walnut cabinet, with burl walnut center panel and trim, features a 12-tube, 3 band, 3 gang superheterodyne push-pull beam power output (10 watts maximum) with 12-inch speaker. Has 6 push-buttons, television audio channel and phono pick-up connection. Howard Radio Co., 1735 Belmont Ave., Chicago, Ill.



FADA 182-G Here is a miniature model *Opera Baby Grand* radio with cabinet finished in 24 kt. gold plated. Features 5-tubes, operates on 105-125 volts, 40-60 cycles ac-dc and covers one band. Has 4 1/2-inch speaker. Height 5 3/4, width 10 1/4, and depth 6 1/4 inches. Price \$49.95. Available also is model 182-S, a *Spinet* radio, also gold plated. Price \$39.95.



FADA 184APC Console radio and automatic phonograph combination in De Luxe *Hepplewhite* cabinet is a 7 tube superhet, covering two bands. Features a 10-inch speaker and *Fa-Da-Scope* loop antenna. List price \$99.95 ac only. Fada Radio & Electric Co., 30-20 Thomson Ave., Long Island City, N. Y.



BELMONT 800 Housed in a walnut cabinet of period design is this 8-tube superhet radio. Tunes standard American broadcasts and four shortwave (19, 25, 31 and 49 meters) bands. Features the three-way tone control and 12-inch electro-dynamic speaker. Belmont Radio Corp., 1257 Fullerton Ave., Chicago, Ill.

CENTRALAB Ceramic trimmer capacitor variable plate rotates on a ground ceramic surface. Power factor less than 0.5%. Available capacity ranges 2 MMF to 6 MMF, 3 MMF to 12 MMF, 7 MMF to 30 MMF, 60 MMF to 75 MMF. Centralab 900 E. Keefe Ave., Milwaukee, Wis.

STAKE YOUR CLAIM *Now*

To a Share in Today's Great Untapped Market



● The appeal of home recording is universal. Parents, young people, children . . . teachers, students . . . everybody will want to make records whenever they wish—once they find out how entertaining and educational, how easy and economical this new-day development really is. There's your market for record-breaking sales this season—and it's practically untouched! Introduce home record making to the prospects in your community with Rock-Ola Recorders and Discs—the line that lets you offer the most in features, in quality and appearance. Go after the extra profit that's yours for going after tomorrow's market today.

8 RECORDER MODELS

Made specially for home recording. 6 consoles in modern and period designs, a table console and a portable. Priced (list) from \$59.95 to \$169.95. Model illustrated is Model RA-3 Table Console, \$69.95.

ROCK-OLA DISCS—

Insure finest performance—high fidelity recordings, minimum surface noise, maximum play-backs. Slow burning. Competitively priced. 6½, 8 and 10 inch.

Get full details on Rock-Ola's attractive dealer plan from your Rock-Ola distributor—write us for his name. Address Dept. RR-11.



PENNSYLVANIA serviceman echoes words which become more significant daily for profit-seeking test equipment dealers.

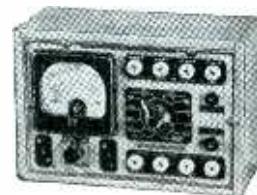
Wayne Hite of Harrisburg, Pa., speaks for hundreds of servicemen when he says, "I am 100% RCP". The flawless performance of RCP Test Equipment, its long-life reliability and rock-bottom cost have won this enthusiastic support among alert servicemen. Dealers genuinely interested in volume sales, extra dividends and valuable good-will, will stock and feature this fast-selling, RCP dependable test equipment line.

AC-DC COMBINATION TUBE AND SET TESTER MODEL 802



Tests all new, old and ballast tubes, including hot interelement short and leakage tests of individual elements. Line voltage regulation 103 to 135 volts with direct meter indication. Multitester ranges: DC and AC volts 0/10/50/500/1000. DC ma.- 01/10/100/1000. DC amps-0/10. Four ohmmeter ranges to 10 megohms. Also, D.B. meter and output meter. Fused D'Arsenval Meter with Alnico Magnet. Complete with tube, battery and test leads. Dealer Net Price.....\$27.95

AC-DC MULTI-RANGE RCP SUPERTESTER 411



Provides accurate measurements in ranges never before available in small instruments. AC and DC voltage ranges 0/10/100/250/1000/5000 volts. Six AC and DC ampere ranges to 25 amps. 4 ohmmeter ranges reading from 0.1 ohm to 4 megohms. DC ma.-0/10/100. DC micro-amps 0-200. The most comprehensive compact tester ever devised. In hardwood case. Dealer Net Price.....\$16.25

MODEL 702 SIGNAL GENERATOR



Capable of even finer performance than RCP's famous former signal generator. Has all latest improvements in circuit and mechanical design. All wave coverage continuously variable from 95 kilocycles to 100 megacycles. Sine-wave, 30% modulation at 400 cycles, from self-contained independent source. Five step ladder attenuator, calibrated in approximate microvolts. Dealer Net Price.....\$22.95

Right now write for Catalog No. 122. Discover the profit-possibilities in RCP's dependable Test Equipment for every need and every purpose.

RADIO CITY PRODUCTS COMPANY, INC.
88 PARK PLACE NEW YORK, N. Y.

RCP
dependable
TEST
instruments

YOU CAN SELL MORE RADIO SETS THIS YEAR —if you follow these 6 rules

1 Give a good demonstration of the new home recording feature. It's the quickest way to convince your customer that he ought to have a new set.

2 To make good demonstrations give each of your salesmen a Presto STELLITE cutting needle for his own exclusive use. It will assure him of 100 or more perfect demonstrations at a fraction of a cent each.

3 Use only PRESTO BLUE LABEL DISCS for demonstrating recording. It isn't worth while to save a few cents on the demonstration disc and take a chance of killing a \$150.00 sale.



4 Sell each customer a PRESTO HOME RECORDING KIT with his set. Start him off right. It will save you free service calls. It will help him make good recordings from the beginning... make him a regular disc customer.

5 Use the PRESTO COUNTER DISPLAY. Show your customers you carry the highest quality discs and needles. Everyone who comes into your store this Fall is a probable buyer.



6 Use the Presto window and wall posters, advertising mats, direct mail order cards. They'll bring you new customers, more business.

JOBBERS—write today for full information on Presto recording accessories—price sheets for your salesmen's folders, free broadsides to mail to your dealers, free merchandising aids for your dealers.

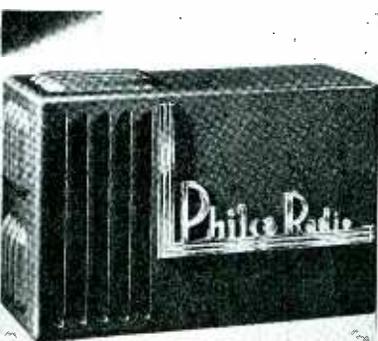
PRESTO RECORDING CORPORATION
242 W. 55th St., New York, N. Y.

World's Largest Manufacturers of
Instantaneous Sound Recording Equipment

PHILCO AR-10 This completely self-contained auto radio fits under the instrument panel of any car. Its features include 6 tubes, built-in interference filtering, electrodynamic speaker. Housed in a rugged one-piece steel case. Retail price \$19.95.



PHILCO AR-75 A de luxe model, built to retail for \$59.95, houses an 8-tube superheterodyne, 5 pushbuttons, custom built instrument panel control mounting on cars, 3 point tone control, built-in interference filtering, 8-inch speaker to match set. Philco Radio & Tele. Radio Corp., Philadelphia, Pa.



UNIVERSITY LABS. Model RLP Lighthouse radial cone speaker projector, so named because of its resemblance to a lighthouse, has 3 non resonant rubber tire rims, heavy gauge aluminum spinnings, floating rubber cone speaker mounting, and radial acoustic breather. Uniform 360° sound projection is said to be assured. Bell diameter 24 inches, overall height 28 inches. For all models of 12-inch cone speakers. University Laboratories 195 Chrystie St., New York, N. Y.



CLAROSTAT Power rheostat has selected resistance wire wound on an insulated aluminum core. The resistance element is bent round, placed in the slot of the ceramic shell, and firmly imbedded in a cold-setting inorganic cement. This construction provides maximum heat conduction and dissipation from winding to special ceramic casing. Clarostat Mfg. Co., Inc., 285-7 N. Sixth St., Brooklyn, N. Y.

BIG BOY

MODEL
860



Performance . . . Eye Appeal . . . Value . . . Sensationally Priced at \$17.85, Dealer Net Price.

Readrite
RANGER

Here is an AC-DC Volt-Ohm-Milliammeter with all the ranges you want . . . easily readable on the large 7" instrument with extra-long 6" scale, in a new up-to-the-minute three-tone case. DC Volts 0-10-50-250-500-1000 at 5000 Ohms per volt DC; 1000 ohms per volt AC. AC Volts 0-10-50-250-1000 at 400 ohms per volt; DC Ma. 0-1-10-100; Resistance ranges: 0-1500 Low Ohms; 0-750,000 Ohms and 0-7.5 and 0-15 Megohms. Maroon case with red and silver panel, attached handle.

Dealer Net Price, \$17.85

For Catalog Write—Section 1120, College Ave.

READRITE METER WORKS, Bluffton, Ohio



P-A System ATTENUATORS

★ Don't overlook CLAROSTAT controls for those P-A systems you install and service. Especially our distortionless output attenuators for controlling individual speakers.

★ Series CIB (shown above) is the big value. Only \$6.50 net. Constant impedance. Dissipates 10 watts at any setting. Zero insertion loss. 3 DB steps to 24, then 6 DB and final step to infinity. 8, 15, 50, 200, 250 and 500 ohms. There's also Series CIA, the 25-watt job, at \$15 net; \$16 with power switch.

★ Ask our local jobber about these and other controls. Ask for latest literature. Or write direct to Dept. RR, Clarostat Mfg. Co., Inc., 285-7 N. 6th St., Brooklyn, N. Y.





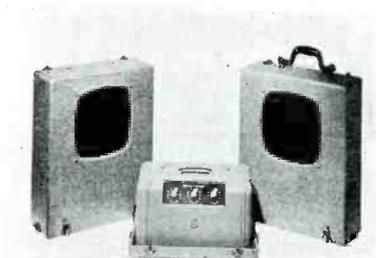
travelling shows, carnivals, etc. Complete PA system consisting of amplifier, two 12-inch speakers, microphone and necessary connecting cable is housed in a single case. Webster-Chicago Corp., 5622 Bloomingdale Ave., Chicago, Ill.



TALK-A-PHONE Automatic record changer instrument in both the wireless and wired table models is designed for use with any radio set. Plays ten 12-inch or twelve 10-inch records. The wireless changer, G-65, uses 78 R.P.M. and has built-in 2-tube oscillator. Comes in cabinet of walnut veneers. For operation from 110-120 volts, 60 cycles, ac. Talk-A-Phone Mfg. Co., 1847 S. Millard St., Chicago, Ill.



SOLAR Type DO, a new series of dry electrolytic capacitors, announced by this company are available in metal cans of the plug-in type to fit standard octal tube base sockets. Solar Manufacturing Corp., Bayonne, N. J.



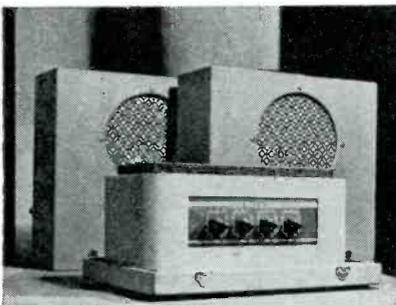
CLARION C-182 Portable automatic record changer—amplifier combination with built-in 2-tube amplifier and 6-inch speaker. Plays twelve 10-inch or 12-inch records. Light weight crystal type pick-up. A Mystery oscillator is built in to permit playing records through any nearby radio set. List price \$62.95. Transformer Corp. of Amer., 69 Wooster St., New York, N. Y.



WEBSTER CHICAGO New Portable sound system, available in 3 power sizes, is useful for the smaller bands,

PHILCO Philcophone, two-way inter-communicating system. At the right the master control station is pictured with one of five possible remote control stations illustrated upper left. The master control unit, complete with one remote control station and 50 ft. of special 3-wire cable, sells for \$29.95. Additional remote control stations sell for \$7.50 each, including 50 ft. of special wire. Philco Radio & Tele. Corp., Philadelphia, Pa.

THIS WAY TO SOUND PROFITS!

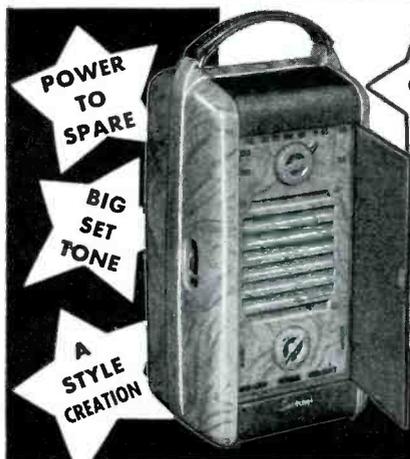


There's REAL profit for you in the big, new, complete line of BELL sound systems! Every unit assures highest quality performance! All are strikingly modern in design, like the brilliant 15-watt P. A. system at left, which features an improved tone compensator, inverse feed-back stabilizer, three input channels with separate volume controls, beam power output tubes and many other advantages—and it's priced to corner the cream of the market for you! Let us send details!

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Export Office, 5716 Euclid Ave., Cleveland, Ohio



POWER TO SPARE

BIG SET TONE

A STYLE CREATION

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Talk about a "natural" for big-volume, big-profit Holiday sales—this is it! Sentinel's sensational new, compact, camera-type, portable radio that has taken the country by storm. Show it, push it, sell it—use this "Lightweight Champion" to pull more prospects to your store. Write now for full information on this and the other Sentinel super-values—electric and battery sets, new portables, combinations and new home recorders.

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2020 Ridge Ave., Dept. RR-11
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IT'S NEW!
BE FIRST TO SHOW THIS NEWEST RADIO MIRACLE
It's Different!

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Quality Radio Since 1920



Look for those NEW ITEMS

● Keeping one jump ahead of the radio worker's growing and changing requirements, Aerovox steadily adds to its already remarkably complete line of condensers of *all* types.

And to aid you in picking out those new items on the jobber's shelves, Aerovox now "flags" them for you. Yes sir! Each new item carton carries a vivid red label on front and sides (see above). You can't miss these new things in condensers. Since such items are not as yet catalogued, the list price appears on sides of label. A tear-off re-order ticket insures the continued stocking of the item.

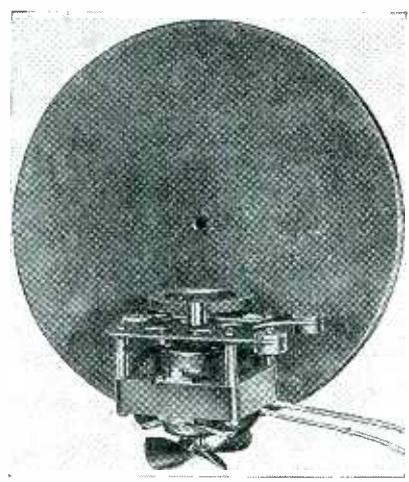
It's just another example of that merchandising-mindedness which makes Aerovox the household word among those who make a living out of radio.

● **Ask for CATALOG...**

Your jobber can give you the latest edition containing all Aerovox items right up to date. Ask for it. Also ask about a free subscription to the monthly Research Worker. Or write us direct.



STERLING 30 Special-purpose pocket testers designed for 2 cell *Air Cell* battery. Condition of the battery is graphically shown on the colored scale as soon as the connection is made. Nickel-finished case, measuring 2 1/4 inches in diameter and 3/8 inch thick. The Sterling Manufacturing Co., 9205-9223 Detroit Ave., Cleveland, Ohio.



ALLIANCE 90 Recording motor and turntable assembly designed for use with individual feed and cutter designs. The motor is available with 9-inch turntable only, being designed to record up to 8-inch blanks. Alliance Mfg. Co., Alliance, Ohio.

WALSCO Introduces a new staple, treated by a special carborizing process, which makes the staple very hard so that it can be driven with the WalSCO Staple Driver into hard surfaces. Price is \$2.29 net, for a box of 230 staples. Free samples of this type of staple are available for test purposes to owners of the WalSCO Staple Driver. The Walter L. Schott Co., 5264 W. Pico Blvd., Los Angeles, Calif.

WEBBER 230 The audio channel of this signal tracer has a built-in dynamic speaker which may be switched in or out of the audio output circuit at will. Audio output transformer is tapped at 1.5, 3.0, 5.0, 8.0, and 15 ohms. The ranges of the voltmeter are -5 to +5, -25 to +25, -100 to +100, -500 to +500. The ohmmeter consists of four overlapping ranges allowing the measurement of resistances from 1 ohm to 10,000,000 ohms. Dealer net \$78.50. Earl Webber Co., 4358 W. Roosevelt Road, Chicago, Ill.



OHMITE *Determ-ohm* resistance box is now available in 2 new ranges, one of 1 to 9,999 ohms and the other of 10 to 99,990 ohms. These sizes are in addition to the 100 to 999,900 range box, previously available. One of the chief uses of the *Determ-ohm* is in the determination of replacement resistors in radio sets. It may also be used as a voltmeter multiplier, or can be used with auxiliary apparatus in an ohmmeter, or resistance bridge circuit. Ohmite Mfg. Co., 4835 Flourney St., Chicago, Ill.



READRITE 860 New volt-ohm-milliammeter with large 6-inch scale. Five d.c. voltage ranges to 1000 volts at 1000 ohms per volt; four a.c. voltage ranges to 1000 v. at 400 ohms p.v.; special chart permits decibel readings against volts from minus 20 to plus 55. Three d.c. milliamperage ranges to 100 ma. and three resistance ranges 1/2 ohm to 1.5 megohm. Readrite Meter Works, Bluffton, Ohio.

TOTAL DEFENSE!

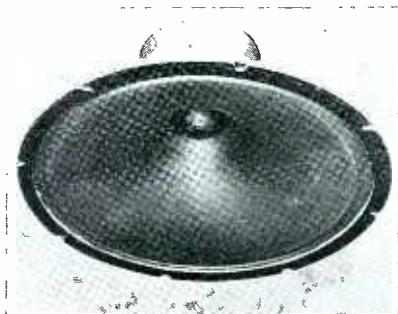
You enjoy complete protection from competition in Sound sales with Clarion's 5-point Profit Plan. Find out what this means to you. Act at once.

Wire or write for Clarion preparedness set-up for increased P.A. sales and profits.

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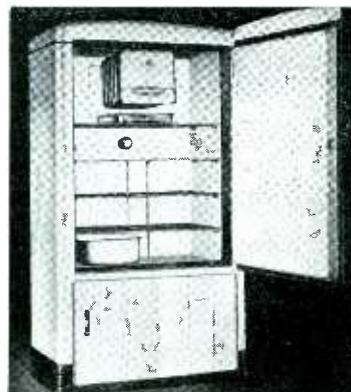
TRANSFORMER CORP. OF AMERICA • 69 WOOSTER ST., NEW YORK

IRC Master radiotrician's cabinet covers 60% to 75% of all control replacements. Type D, all-purpose controls may be used to replace mid-size or larger, old-style controls. Cabinet contains 3 drawers; hinged front snap cover for carrying. The regular price of the 18 controls, 6 switches and 5 special extra shafts is \$14.97 net. The all-metal constructed cabinet is supplied at no extra cost. International Resistance Co., 401 North Broad St., Philadelphia, Pa.



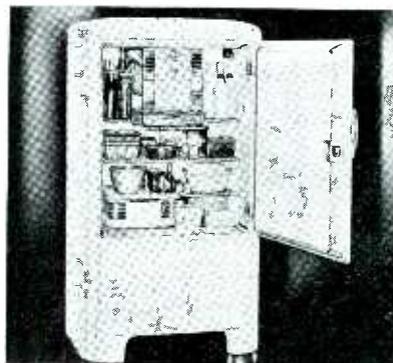
RCA MI-6237 This 15 1/4-inch high fidelity loud-speaker mechanism has been developed for use wherever tops in tone quality are required. It handles 15 watts of power. The voice coil (impedance 8 ohms) is dust proof. RCA Mfg. Co., Inc., Camden, N. J.

Quickube type, double width dessert tray, freezer door, sliding hydrator, safety-cycle defroster, gray door trim. Retail price Zone B \$118.50. Frigid-aire Div., General Motors Sales Corp., Dayton, O.



STEWART-WARNER 801 Master refrigerator all steel cabinet. Has high-bake Dulux exterior finish and porcelain interior finish. Overall dimensions of 61 high, 34 1/8 wide and 26 11/16 inches deep. Net capacity in 8.4 cu. ft. Equipped with dry storage cabinet and large vegetable freshener with cover. Price \$159.95. Stewart-Warner Corp., Chicago, Ill.

EAGLE The new *Nail-It* insulated staple drives like a nail and will not bend, thus eliminating the waste of a great number of staples. Incorporates the dimensions of the two most popular sizes in use, the length of the No. 3 and the width of the No. 5. Avoids the *smashing of fingers*. Available in copper finish and in colors. Eagle Electric Mfg. Co., Inc., 59-79 Hall St., Brooklyn, N. Y.



FRIGIDAIRE This 6 cu.ft. Xmas model has a larger unit, ice trays of the

P. R. MALLORY New color coded tubular paper condensers, types TP (wax-impregnated, wax-filled); OW (oil impregnated, wax-filled); and OT (oil-impregnated, oil-filled), give instantaneous recognition of voltages by means of a bottom band of color properly coded to RMA specifications. P. R. Mallory & Co., Indianapolis, Ind.

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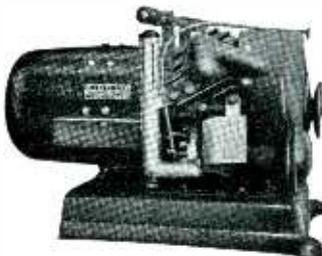
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Four-tube super-hot circuit, simulated cowhide case (saddle-stitched).



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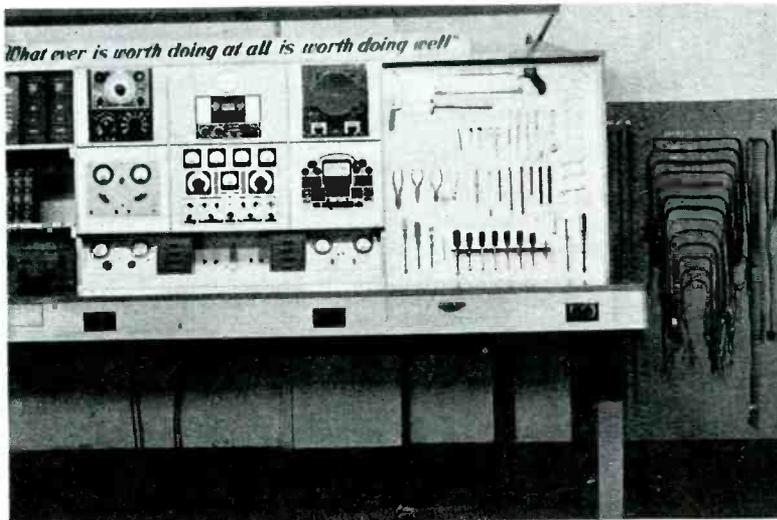
BENCHES



READY FOR TROUBLE—Just let any set act up in the vicinity of the M and M Company, Cleveland. Stan Parsell, left, and George Jelinck, right, are equipped to take all comers; whether it's home, auto, or portable



RARIN' TO GO—Plenty of ac outlets spaced 5 inches apart along the strip at the front, adjustable lights and handy spare parts jars tell the story at Acme Radio Shop, Jackson, Michigan



NEATEST ANSWER—To the tough problem of concealing test leads. Lord Chesterfield's quotation keeps servicemen stepping for Alline Electric Co., Ottumwa, Iowa. Compressed air, fluorescent lighting and universal power supplies are only a few of many modern features

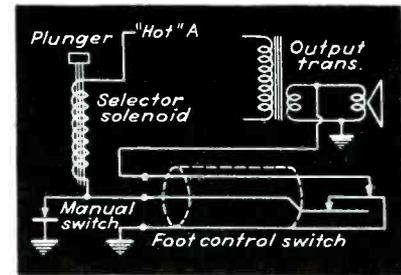
Step and Tune

A new automatic tuning control for auto radios is operated electrically by a touch of the left foot on a floor button instead of by hand.

If the driver wants to listen to railroad or traffic signals, pressure of the foot also silences the radio by shorting the voice coil winding of the output transformer to ground. Release of the foot pressure continues the program.

Introduced by Zenith in the Lincoln and Nash auto radios the floor switch, when depressed all the way, closes the battery circuit through a solenoid coil and the magnetic pull actuates a plunger.

The plunger rotates a four gang selector switch to any of six positions, five for stations and one for regular dial tuning. Switch contacts connect



trimmer condensers and permeability tuned coils into the r-f and oscillator stages for the stations selected.

Of special interest to servicemen is a socket in the side of the radio case into which a tuning eye cable may be plugged. Since the socket is connected to the B+, filament and avc line an eye tube with a half megohm resistor mounted at its socket and connected to a cable and plug can be employed for visual indication of the automatic tuning adjustments and realignment.

The socket in the Lincoln-Zephyr model has two additional contacts that are connected by a jumper. When the jumper is removed the voice coil circuit is opened and an output meter may be plugged in for use in realignment when the tuning eye tube assembly is not available.

FM Translator

Good sensitivity of FM receivers is necessary to insure proper limiter operation if the full noise reducing properties of frequency modulation are to be realized. The gain of the i-f stages is limited to that point beyond which lies instability and therefore considerable gain must be obtained in the front end to insure sufficient receiver sensitivity.

To secure the necessary gain G-E employ a double superheterodyne or

Service Department

cascade converter circuit in the FM translator JFM-90. It consists of two 6AB7 converter tubes, and a 7A4 oscillator tube and their associated circuits.

To illustrate the action consider an FM signal of 42 MC to which the translator is tuned. The oscillator frequency for this setting of the tuning control is 18.85 mc and it heterodynes in the first converter tube, through inductive coupling to the converter grid, with the 42 MC signal to form 23.15 mc. Since the first converter also conducts the oscillator signal through to the inter-converter circuit the 23.15 mc beats with it in the second converter stage to produce the 4.3 mc i-f signal.

After i-f amplification the signal reaches the limiter which consists of two resistance coupled 6SJ7 tubes in series. Each limiter operates at zero initial bias and low plate voltage. Both grid circuits are designed for self biasing and the use of resistance-capacity networks provides enough time delay to retain grid bias between signal peaks.

The action of the limiter is such that the tube draws grid current as soon as a signal is applied to its grid. This grid current tends to charge up the capacitor across the grid resistor and establishes a bias through current drain in the resistor. Between positive signal peaks the condenser discharges through the resistor and maintains the grid bias. Negative signal swings are beyond plate current cutoff and positive signal peaks are cutoff by plate current saturation. Since the first limiter stage limits noise amplitudes the second limiter has a rather simple job of reducing the remaining noise to the desired level.

For realignment it is recommended that the high side of the scope input be connected to point A of the diagram through a 470M ohm-carbon resistor and a wide-band signal generator output at 4.3 mc be applied progressively to points B, C, and D. The primary and secondary i-f trimmers should be aligned for maximum vertical deflection, but the tertiary winding trimmer is adjusted to give maximum broadness to the peak of the curve without decreasing the vertical deflection.

Fixed Frequency Reception

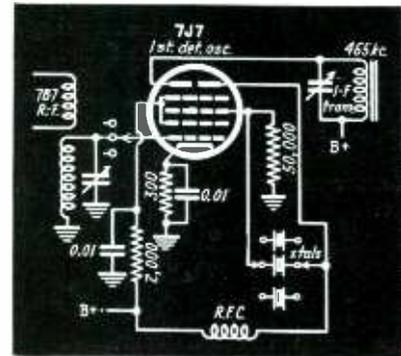
Receivers designed for operation at certain fixed frequencies often drift away from these frequencies unless special precautions are taken to prevent this condition.

The new RME SPD-11 employs a quartz crystal controlled heterodyne oscillator to help the receiver stay put at the desired frequency under continuous operation.

A five point rotary switch selects the proper trimmer condensers to tune the two r-f stages and the first detector stage to the desired frequencies. However, the triode oscillator section of the 7J7 converter tube is connected as a Pierce oscillator and does not have coils or trimmers to be selected, and so the switch selects only the appropriate quartz crystal.

The grid of the triode section of the 7J7 tube is connected to an injection grid in the mixer section and thus the oscillator is fed directly into the electron stream.

The balance of the set is more con-



ventional with two 7B7 i-f stages, a 7A6 second detector, 7C7 and 7C5 first and second audio stages, and a 7F7 tube employed as a qvc stage to deaden the speaker when no signal is being received. Since the receiver is designed for the new tugboat radio-phone service terminals on the back of the chassis are provided to which a negative bias voltage of about 125 volts from the transmitter can be connected. Conducted to the grid of the last audio stage this voltage kills the audio of the receiver when the transmitter is turned on.

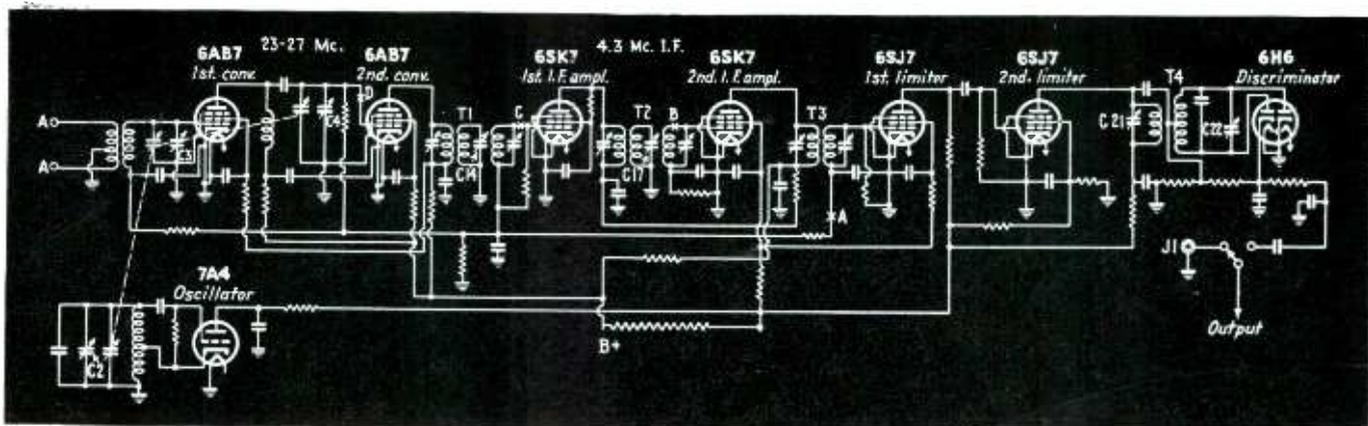
Fluorescent Interference

The fluorescent lamp is an arc source and therefore produces radio signals in the form of noise interference in the broadcast band from 550 to 1600 kc.

This interference may reach the receiver either by radiation from the lamp to the radio aerial system, by line radiation from the house current supply line to the aerial, or by direct feedback from the lamp through the power line.

Lamp radiation, the most frequent cause of interference, has a limited range of about ten feet and can be eliminated by moving the radio receiver. In cases where this cannot be readily accomplished the aerial location can be changed to a spot further away from the field setup around the lamp and well-grounded shielded lead-in used for connection to the radio.

This procedure can also be employed



to minimize line radiation fed to the antenna from the power line. Both line radiation and line feedback may be eliminated by installation of simple capacity or inductance line filters.

Where several lamps are employed one will usually be found to be causing the greater part of the interference and it is often possible to locate the worst offender and remove it from the fixture.

Automatic Player

A new wireless automatic record-changing record player has several points of interest to servicemen. The mechanism of the Motorola model 23-RCW (described in the October issue of *Radio Retailing*), is electrically actuated by a release magnet to start the changer cycle. As shown in the diagram the switch contacts are closed by the oscillating of the pickup arm in the eccentric groove of the record, through a spring clip which grips the movable switch blade.

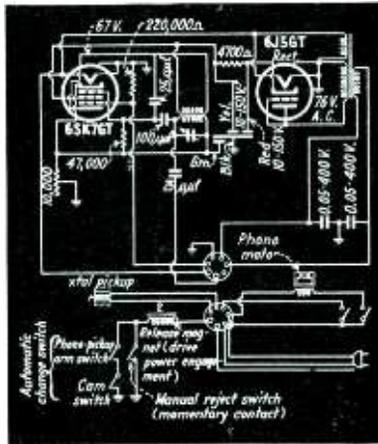
In the first few degrees of revolution it opens the cam switch, thus opening the magnet circuit and de-energizing it. The manual reject switch is connected in parallel with the automatic change switches, and, when depressed, energizes the electromagnet in the same way to start the change cycle at any time after the start of the record playing and before the pickup arm reaches the eccentric groove.

The player utilizes a power transformer instead of a line cord for more effective isolation of r-f from the line, but instead of a step-up turns ratio the voltage is stepped down to 76 volts to the 6J5GT rectifier tube.

The voltage drop through the resistance-capacity filter allows 67 volts dc to be supplied to the oscillator-modulator 6SK7GT plate and screen. This low plate voltage allows sufficient r-f output to be realized for proper operation of the wireless feature, yet minimizes harmonic production and

radiation that might interfere with other services.

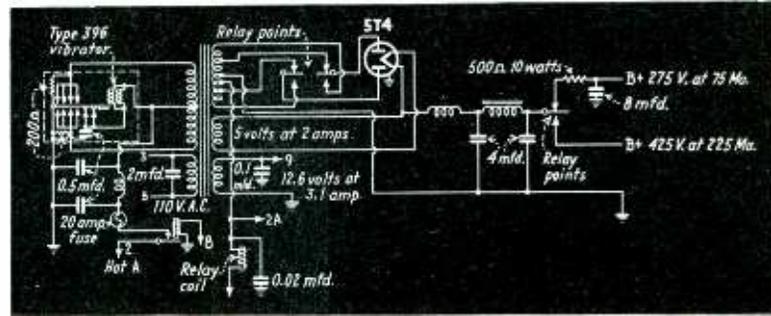
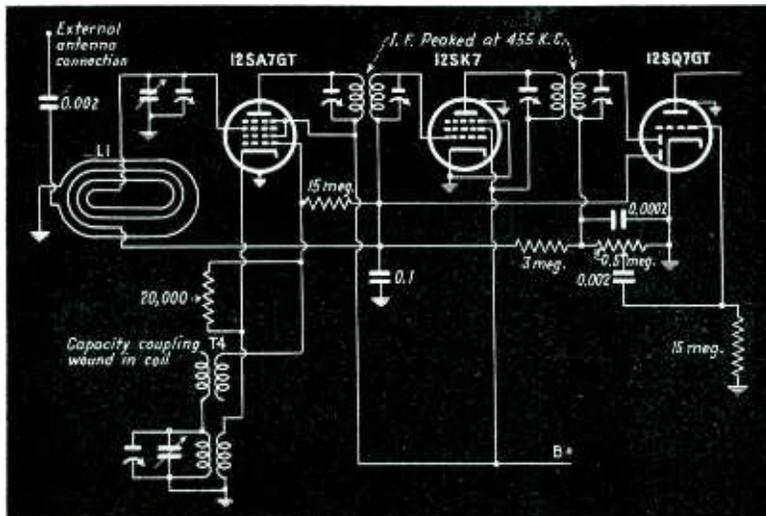
The 10M ohm bias control regulates the output of the oscillator, and since the a-f output of the crystal pickup is constant, at the same time varies the percentage of modulation obtainable from the pickup.



Oscillator Provides Bias

The voltage developed across the oscillator grid leak is utilized by Emerson in chassis models, DB, DL, as well as the EC and EM series.

The 15 megohm resistor shown in the diagram, the 2 megohm resistor and the volume control act as a voltage divider of the negative voltage appearing at the oscillator grid and supply a small amount of negative voltage to the first detector and i-f stages for delayed avc. action of the diode.



As the receiver is tuned to various frequencies the strength of the oscillator will vary and this voltage will vary directly with it. Decrease of this voltage will result in lower bias and therefore increased gain of the first detector and i-f stages. The open-ended coils in the oscillator circuit can be considered as a plain, ordinary, grid condenser.

Higher gain and lower distortion in the audio stage at low signal levels are obtained in this and other circuits currently used by manufacturers with operation of the high mu triode portion of the dd triode at zero bias and high grid input resistance.

Heavy Duty Vibrator Power

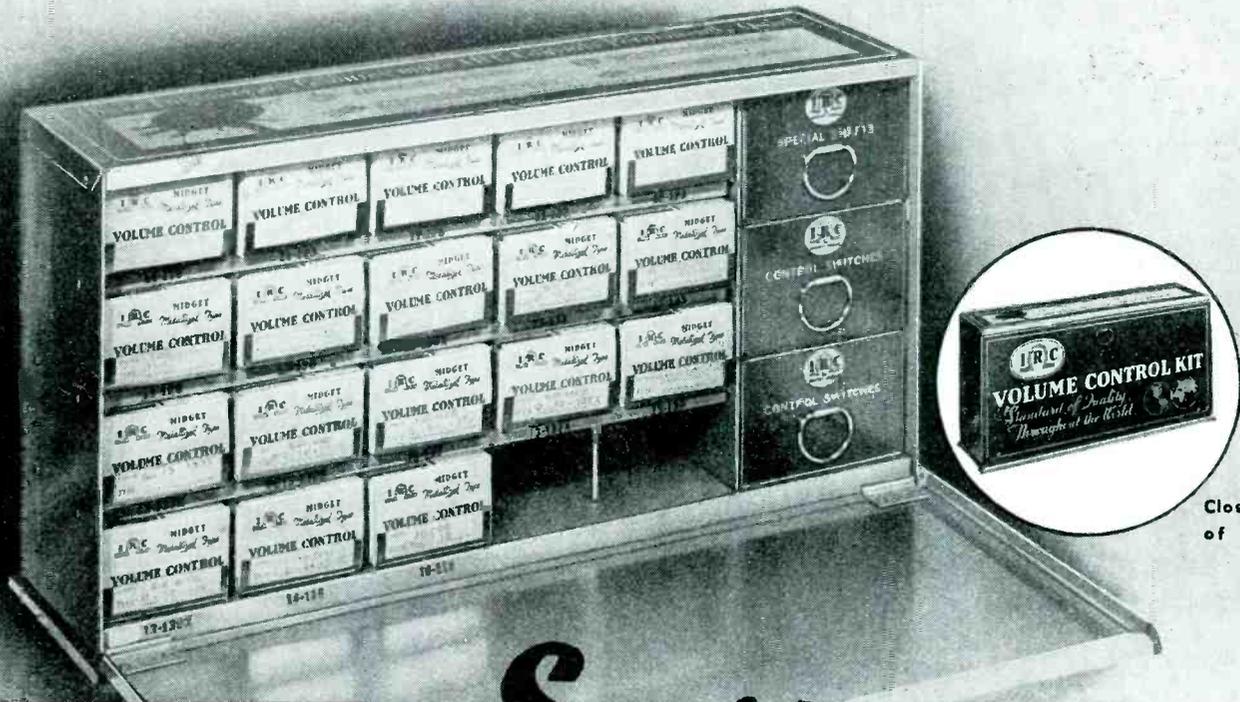
A tandem type vibrator constructed with four sets of contact points operating in parallel is employed in Electronic Laboratories' Model S700 Hallicrafter power unit for marine radio systems.

Operating on 12 volts dc or 110 volts ac input the unit has an output of 425 volts at 225 milliamperes for transmitter operation and an output of 275 volts at 75 milliamperes for receiver operation. A tap on the power transformer supplies about 100 volts to the relay shown in the diagram to select the proper output when the microphone switch is operated.

When the lower output for the receiver is needed the lower voltage tap on the power transformer supplies the 5T4 rectifier tube and switches the dc output to the receiver circuits. Closing the microphone switch allows the relay points to open the connections to these taps on the transformer and connects the rectifier tube to the higher voltage terminals of the power supply transformer, the relay points in the dc B circuit shifting to supply the transmitter.

An interesting feature of this power unit is that the filaments of the tubes are fed ac voltage from the transformer, one winding supplying the rectifier tube with 5 volts ac and the other winding supplying the rest of the tubes with a 12.6 volt ac winding. No buffer condenser is employed on vibrator operation but the extreme peak voltages set up by the vibrator are limited by the buffer action of the 2 mfd condenser across the 110 volt winding.

THE FIRST REAL MOVE TOWARD CONTROL STANDARDIZATION



Closed view of cabinet



THE FIRST REALLY
"UNIVERSAL" CONTROLS

In every respect IRC Type D Controls are exact, smaller-size reproductions of the larger IRC Type C Controls. They are unique in that, although midgets, they are fully equal in quality to the larger controls. Nothing has been left out. Only the size is different, and the only change has been the addition of Tap-in Shafts which make them much easier to install in crowded chassis and far more universal in application. Simply select the control you need, tap in the proper shaft according to easy instructions and the job is done—quicker, easier and from a small stock that will represent a tremendous saving in time, money and effort to the average serviceman whether he replaces only a couple of controls a week or a couple of dozen. Type D's are small enough to fit almost anywhere; large enough for real dependability; sturdy enough to stand up under the most severe conditions.

**Save TIME...
MONEY...EFFORT**

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- ✓ Reduce your stock and your investment.
- ✓ Have the control you need—when you need it.
- ✓ Simplify installations, speed up work, give customers faster, better, more efficient service.
- ✓ Avoid frequent need for more costly special replacements.
- ✓ Keep your controls systematically in a good-looking cabinet clean and free from injurious dust and dirt.

The 18 IRC Type D Universal ("All-Purpose") Volume Controls, 6 switches and 5 extra tap-in shafts of special design contained in this IRC Master Radiotrician's Cabinet handle from 60% to 75% of all volume control replacements as shown by actual IRC records! By supplementing them with a few additional IRC Type D Controls selected with a view to your own local requirements, you are in a position to handle the great majority of all replacements—from stock—at an investment so low it will amaze you!

You are equipped for better, faster service. You save time because it is no longer necessary to order a control every time you need one. You simplify installation because IRC Type D Controls with their Tap-in Shafts are easier to install and may be used universally for replacing "midgets" or larger "old-style" controls. You avoid frequent need for more costly special replacements because this Cabinet gives you a choice of 4 shaft types.

The handsome All-Metal Cabinet is included with your purchase. You pay only \$14.97, the standard net price of the 18 controls, 6 switches and 5 extra shafts with which it is factory-packed. See it at your IRC jobber's, or write for details and complete list of controls that are included. (Cabinets not sold empty.)



INTERNATIONAL RESISTANCE CO.

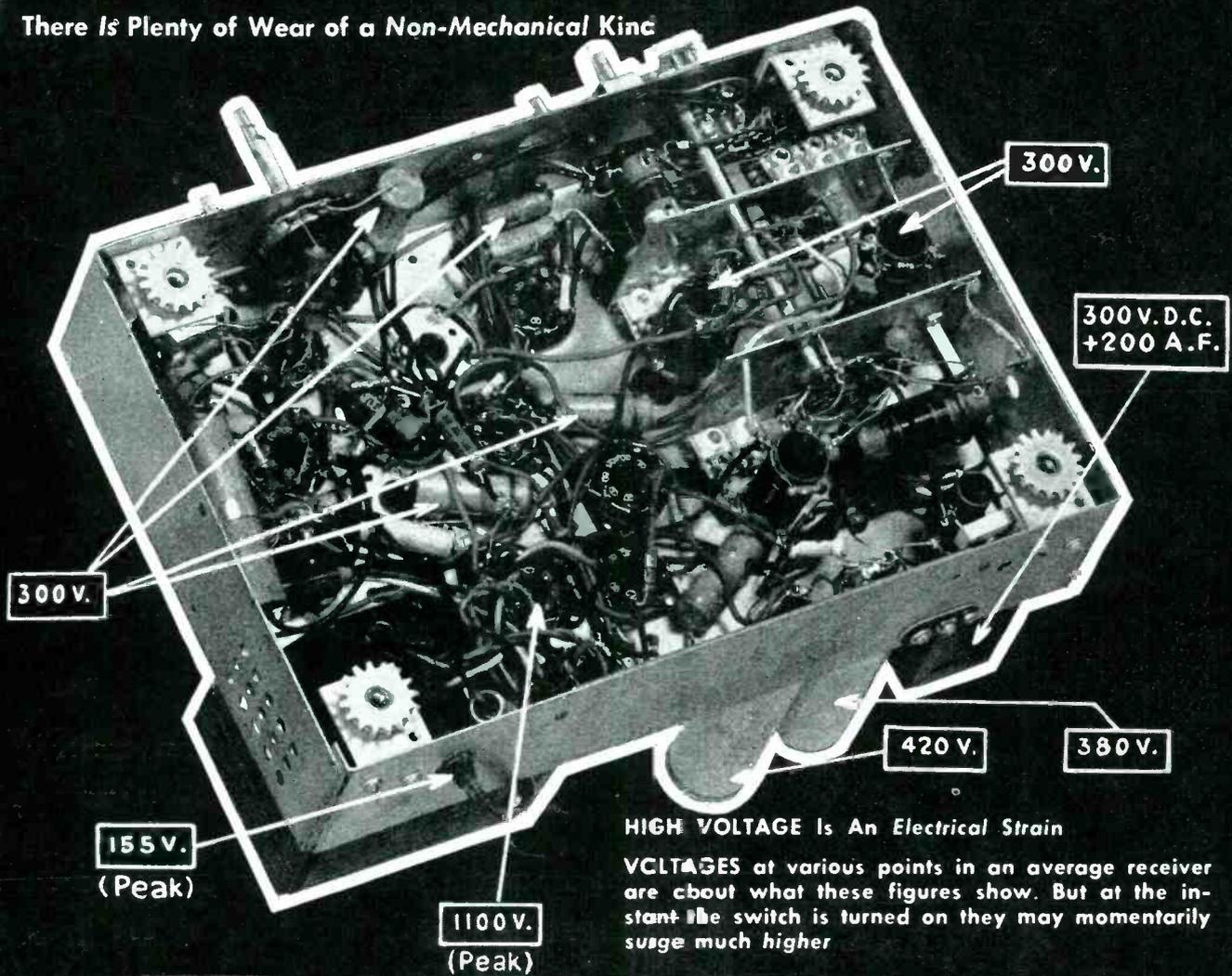
401 N. Broad St., Philadelphia, Pa.

Type D UNIVERSAL VOLUME CONTROLS

Why RADIOS BREAK DOWN

BECAUSE There Are Few Moving Parts Many People Can't Understand Why Sets Should Ever Fail

BUT There Is Plenty of Wear of a Non-Mechanical Kind



HIGH VOLTAGE Is An Electrical Strain

VOLTAGES at various points in an average receiver are about what these figures show. But at the instant the switch is turned on they may momentarily surge much higher

AGE



TUBES change with age, may when old put an abnormal demand on parts. To avoid this many people install a new set of tubes every year

TEMPERATURE



HEATING and cooling of parts over and over again eventually changes their chemical composition and affects their electrical characteristics

MOISTURE



CONDENSATION frequently produces moisture inside even completely sealed and impregnated containers, causing corrosion and electrolysis

AND There Is Some Mechanical Wear . . . In the Dial . . . The Tuning Mechanism Rotated By the Dial . . . Volume and Tone Controls . . . Switches

INVISIBLE WEAR Is No Reflection On Your Radio's Original Construction Or Installation



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Gift Merchandise too!

THE N.U. WAY

Select WHAT YOU WANT . . . GET IT **Free**
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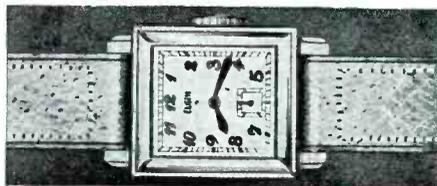
A long low rambling colonial doll house with stairway, six room house, covered porch and garage 42" x 13" x 20½". Retail value \$8.00, deposit \$4.00. 150 purchase points.



Beautiful Amana Blankets—100% virgin wool. Fleecy, warm and long wearing. 72" x 84" with 4" satin binding to match color of blanket. Retail value \$10.00, deposit \$4.00. 225 purchase points.



Rogers 87 Piece Silver Service in tarnish-proof wood chest guaranteed by Simeon L. and George H. Rogers famous Oneida Silver-smiths. A life time addition to any home. Retail value \$60.00, deposit \$12.00. 600 purchase points.

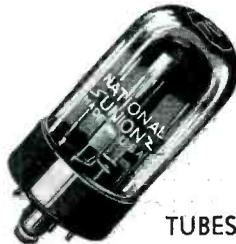


Elgin Crusader wrist watch 10K natural gold filled case, 17 jewels, leather wrist strap. Ladies DeLuxe Model also available. Retail value \$37.50, deposit \$11.00. 550 purchase points.

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See Your Jobber or Write

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 57 STATE STREET, NEWARK, N. J. . . .



TUBES

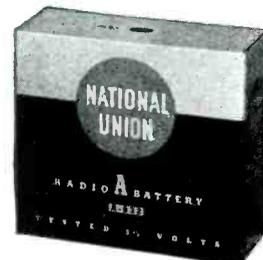
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Feature high breakdown voltage . . . uniformity . . . close tolerances . . . low leakage . . . low power factor. Smaller sizes and mechanical ruggedness assure quick and easy replacement installations. You owe it to yourself to standardize on National Union Condensers.

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55 DICKERSON STREET
NEWARK, N. J.



How to Connect RECORD PLAYERS

IT IS ONE THING to connect a record player to a radio and get sound from both; it is quite another problem to obtain the best *tone* in both arrangements

By JOHN M. BORST

BUSY servicemen sometimes connect record players the quickest and easiest way and rush the job back to the customer without checking the tone quality of the radio or phonograph.

Unfortunately the customer, who has more time to critically listen to the reproduction, may detect distortion and form his own conclusions about the serviceman.

Most of the record players encountered are equipped with a crystal pickup, a volume control being incorporated into the player, and it is this type that we shall consider.

Capacitive Reactance

The crystal pickup is often accused of emphasizing high notes and neglecting the lows, a very unfair accusation since the response obtained from the pickup depends to a large extent upon the character of the load.

A crystal pickup may be considered as a generator with an internal impedance approximately equivalent to that of a .002 mfd. condenser. This means that the internal impedance varies from 8000 ohms at 10,000 cycles to about 2.7 megohms at 30 cycles. When this type of pickup is connected to a load of fixed impedance at all frequencies, the voltage across that load will generally be lower at low frequencies. The higher the resistance of the load, however, the better the low frequency response. For instance with a 2.5 megohm load resistor the response would be about 3 db. down at 30 cycles.

When the crystal pickup is con-

nected to a condenser as a load, the voltage drop across the load condenser will not be subject to frequency discrimination. A resistor across the condenser, however will "by-pass the lows". Here then, some of the usual rules are reversed. Capacity across the load resistor or in the cable does not decrease the high notes but reduces the total response while a low-resistance load will cause reduction of lows.

For several reasons it is not practical to employ a high enough load resistor or a condenser load. Various combination networks are sometimes employed to equalize the response;

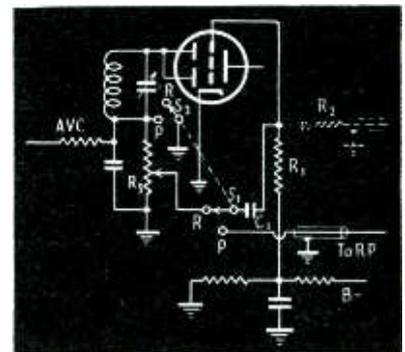


Fig. 2—A condenser will isolate the player

their treatment is beyond the scope of this article. The usual .5 megohm volume control will be assumed here; those who wish to improve on it may try a .1 mfd. condenser in series with a .1 meg. resistor across this volume control.

Pickup Connections

Consider now a typical duo-diode-triode detector and amplifier, illustrated in Figure 1. The logical place to connect the pickup is either in place of or across the grid resistor R1. The coupling condenser, C1, must then be disconnected which is accomplished by the switch S1. This is not sufficient; the radio signal can still reach the diode and since there is some coupling inside the tube between the diodes and the grid of the triode some radio signals will be heard.

If the set is tuned between stations, interference, signals, static or clicks

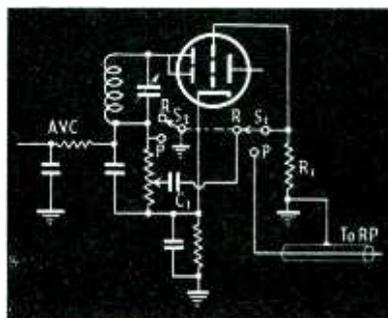


Fig. 1—Triode grid at chassis potential, cathode bias

may come through. Therefore it is best to kill the diodes by means of the switch S2 which shorts the high side

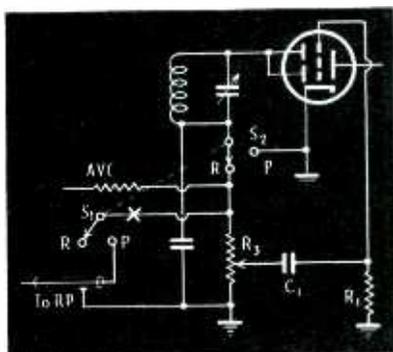


Fig. 3—Use this circuit if player has no volume control

of the diode load to ground. Both S1 and S2 can be united in a double-pole-double-throw switch. If the r-f and i-f tubes derive their minimum bias through the avc circuit and a portion of the B supply return then S2 must be connected to short the diode load without grounding it.

The circuit of Figure 1 refers to a diode-triode combination where the triode grid is at chassis potential and cathode bias is employed.

In all other cases, when the grid is biased from the negative return, by a bias cell or by a high resistance grid resistor, the player must be isolated from the grid circuit by means of a series condenser. This is best done by breaking the circuit at the other side of the coupling condenser C1 as in Figure 2.

One should especially avoid the connection indicated by the dotted line. Some servicemen employ a series resistor R2 for isolation but the resistor then forms a voltage divider together with R1 and the record player's volume control resulting in a reduced bias at the grid and possible distortion. Such a connection can be improved by placing a condenser at X.

It would now appear that no switch is needed and that the record player can be left permanently connected across R1. However, a switch is still required to stop the radio signals from coming in and to prevent the volume control R3 from shorting the output of the phonograph. The resulting switch would not be any simpler than the one shown in the circuit of Figure 2 and the connections indicated by solid lines are to be preferred over the dotted ones.

Two Controls

Sometimes it may be required to have the volume control of the receiver serve also to control the phonograph. In this case there may not be a control at the record player, or in some cases there may then be two controls in parallel. Figure 3 shows

"HAVING A SWELL TIME," WRITES ABNER BUGLE, "WISH YOU WERE HERE."

Abner Bugle is the man who used to write the advertisements for Sprague Condensers.

Nobody could juggle adjectives more gracefully than Abner and, when it came to slapping on the superlatives, even Abner admitted he was just about tops in his profession. But Abner ran into a snag one day, and here is how it happened:

"Look, boss," he wailed to the president of the advertising agency for which he worked. "I'm in a helluva fix. There's nothing more to say about Sprague Atom midget dry electrolytic condensers."

"What!" roared the president, gnashing his teeth so hard he bit the stem off his Meerschaum. "Don't be a fool, Bugle! Why, Atoms build up quicker. They stand higher surges. Their low leakage avoids overheating. They're smaller, and they've got more guts than —"

"I know all that," mourned Abner. "But every cheap condenser makes just about the same claims—whether they can live up to 'em or not. They may not be as good as Atoms in a radio set, but they look just as good in an ad. I don't know what to do."

"Jeepers Creepers, man!" the president's bellow shook the oil painting of the 50th million Sprague TC Tubular hanging on the wall. "And you say you're an advertising expert! Of course Atoms are better. They're unconditionally guaranteed. There isn't a firecracker in a carload—not in a trainload—two trainloads—three trainloads —"

"I know that, boss," wailed Abner. "But you can't PROVE those things in print. No



matter if he fills 'em with mush and wraps 'em in tissue paper, another manufacturer might CLAIM that his condensers are as good as Atoms."

The president did not reply. Grasping pad and pencil, he suddenly began to write. For two hours, Abner stood by, pale and wan and there was no other sound save the feverish scraping of the boss' gold pencil.

"Eureka!" shouted the president finally. "I've got it. Here's what we'll say in our next ad. Listen to this:

"We're glad most condensers are bought on the basis of hard-boiled engineering tests rather than mere advertising claims. When quality is allowed to speak for itself, there can be no mistaking what it says. That's why Spragues are today specified by leading users throughout the world."

"Splendid copy, boss—and it's all true," said Abner, breathing a deep sigh of relief.

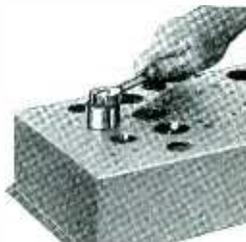
"Splendid nothing!" snorted the president. "It's perfect. What's more, you're fired, Bugle. In the future, I'll write the Sprague ads myself."

SPRAGUE PRODUCTS COMPANY North Adams, Mass.

P.S.—When last heard from, Abner Bugle had become a beachcomber in Tahiti. "Having a swell time—wish you were here," is what he wrote on a post card and added: "It's a great life. Beats advertising to a frazzle."

The EASY Way To Cut Holes In Radio Chassis

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



Here's a handy tool to help the radio worker save many hours of work when cutting holes for sockets, plugs, connectors, 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 cap screw with an ordinary wrench. Smooth holes, requiring no filing or reaming, can be cut in metal up to 1/8-inch thick in 1 1/2 minutes or less.

Ten punches are available for cutting 3/4, 7/8, 1, 1 1/8, 1-5/32, 1-3/16, 1 1/4, 1 3/8, 1 1/2, and 2 1/4-inch holes. A Greenlee Knockout Cutter is also available for cutting holes up to 3 1/2-inch size for meters.

GREENLEE TOOL CO.
1708 Columbia Ave., ROCKFORD, ILL.

JIM QUAM Says



As this is written we are just shaking off the usual "election hangover." It's too bad we have to get so confounded hysterical about these things every four years. After it's all over and we've had time to cool off a little, we realize that we're not going to have a Utopia, or is the country going to the dogs, regardless of who was elected.

So now we'll go on making speakers, even better ones than we have been making, judging by the results we've been having in the lab, and the rest of you will all go on with your particular job in the radio industry for another four years.

Maybe we should have a little less hysteria every four years and a little more active interest in our government in-between.

Especially in these serious times. It's a thought anyway.

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



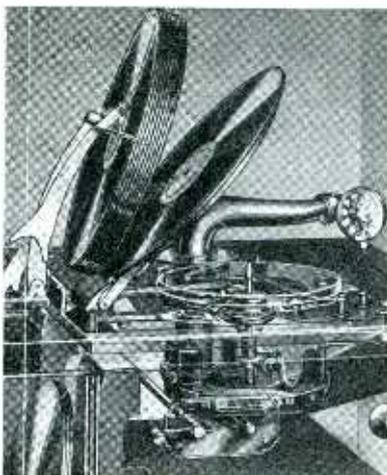
how this may be accomplished; the receiver volume control, which is the diode load, must be disconnected from the diode or else the audio signals would be rectified and cause distortion. At the same time the diode return must be grounded. All this is accomplished by the double-pole double-throw switch S1S2.

Leaving the record player across the diode load and doing away with one of the switches is sometimes advocated. The capacity in the cable however will take highs out of the radio reproduction unless a high resistance, 2 megohms approximately, is inserted at X. Then the switch S1 can be omitted but S2 is still required.

New Tubes

12A6—Metal, beam power amplifier with a 12.6 volt .15 ampere heater for use in ac-dc receivers. With 250 volts on plate and screen the tube will handle an output power of 2.5 watts. *RCA.*

6AD7G — Triode power amplifier pentode in one glass envelope. If the pentode section is operated in push-pull with a separate 6F6-G the power output at 375 plate volts is 9 watts. *RCA.*



LEST WE FORGET that automatic record changer mechanisms are not new (see *Radio Retailing*, October), this is the first automatic record changing Victrola, model 1050. Released in March, 1927, it sold for a mere \$1100. Spring-wound, it dropped the records to the turntable, and, after playing, tilted them into a bin at the side. *RCA Victor* report not a few are still in use today.

MIKE SAYS—"The N. Y. State Employment Dep't. won't list us as repairmen 'cause we can't fix tubes, condensers, resistors, etc. They call us 'radio parts replacers'."

TRICKS of the TRADE

AUTOMATIC P-40

No reception . . . remove output tube to check the filter for short, tube filaments complete the ohmeter circuit to form an apparent short.

ATWATER KENT 534

Oscillation . . . twisted lead around grid of 75 tube controls feedback in this stage. Adjust until oscillation stops. If not effective, realign set and readjust lead. Align i-f at 450 kc.

CROSLY 1117

Erratic hum . . . install a lock washer on the top of the chassis under the 40 mfd electrolytic condenser and solder a heavy copper braid from condenser nut to chassis.

DETROLA, WARWICK MODEL

Poor reception at low end of broadcast band . . . replace voltage dropping resistor in screen grid circuit of 57 detector-oscillator with 40M ohm resistor.

EMERGENCY POWER ANYWHERE

with **PINCOR GOLD CROWN POWER PLANTS**

These rugged, heavy duty, gasoline engine driven generators provide low cost power anywhere, any time, for electrical machinery, standby emergency service, field and construction work, portable radio equipment . . . charging batteries . . . lighting homes, boats, trailers, etc. Output up to 15 KW, A.C. or D.C.; standard or special voltages; air or water cooled; gasoline, kerosene or natural gas operation. Send for new catalog and prices today.

PIONEER GEN-E-MOTOR CORP.
 Dept. R-1, 466 W. SUPERIOR ST., Chicago, Ill.
 Export Address: 25 WARREN ST., N. Y., N. Y.
 Cable: SIMONTRICE, New York

PINCOR Products

FOR AIRCRAFT • SOUND • POWER SUPPLY USES

ROTARY CONVERTERS

SMALL MOTORS

DYNAMOTORS

HIGH FREQUENCY CONVERTERS

Creating "Firsts"

WILCOX - GAY!

KEN-RAD

DEPENDABLE RADIO TUBES

Ken-Rad Radio Tubes are dependable in service and dependable profit-makers for dealers. We invite inquiries from tube dealers and servicemen.

Ken-Rad Tube & Lamp Corporation
Owensboro, Kentucky

EMERSON 338

Weak reception . . . volume control shaft shorts to ground.

FADA 5F60T

Peanut whistle . . . open condenser from plate of 25L6 tube to cathode, or plate lead of this tube is too close to grid lead. Shield lead or increase separation distance.

FARNSWORTH AKL 59

Hum, loud on phono, less on radio . . . line cord running parallel to radio-phono leads and switch. Dress leads further away.

FORD 1936-7 CARS

Motor noise . . . on all models, regardless of antenna used, dress lead in to set in a direct, parallel line and fairly close to fuse and resistor on bulkhead wall employed in primary of coil circuit. Motor noise can be "tuned" out by moving lead back and forth until a null point is reached, securely fasten lead in that position. Only filters needed on car are generator condenser and condenser from ignition switch to ground. No plug or distributor suppressors needed.

MOTOROLA 29B

Cuts out on low frequency end of dial . . . if tuning to high end brings back to operation replace 6 mmdf compensating condenser across 600 kc padder.

Dial cord repeatedly comes off . . . celluloids on pushbuttons tend to slide up. When one is up high enough, dial pointer hits it and knocks off dial cord and celluloid. Replace dial cord and put drop of cement on top of pushbuttons or in back of celluloids.

PHILCO 38 Battery Type

Oscillation . . . replace the 500M ohm screen-grid resistor of second detector with a 400M ohm unit.

PHILCO 91

Motorboats . . . usually caused by the spider of speaker cone losing its tension. Best procedure is to replace cone.

PHILCO 19, 89

Stops oscillating . . . usually caused by an open cathode by-pass condenser of oscillator tube. The original capacity is .0007 mfd., replace this with one of .0014 mfd.

MAN AT WORK!



Homer G. Snoopshaw., (Battery Replacement Specialist), has a new position as Replacement Adviser in Bud's Radio Shop. The customer's "Down Draft Special" almost has him stumped, but Homer will figure out what batteries should be installed if it's the last thing he does—and it may be just that. After two days of this he is seeing little green megacycles with purple ohms. It's a pity Homer's boss doesn't have a copy of the Burgess Replacement Guide.*

***IT'S FREE**
See Your Burgess Distributor or write Burgess Battery Company, Freeport, Illinois

BURGESS
The Complete Replacement Line

New! Fidelitone
The Nationally Advertised
PHONOGRAPH NEEDLE
Manufacturing Metallurgists

6 Months' Service from Each Needle
Retails for 50c



Filters Record Scratch Through Floating Point . . .
Ask your Parts Distributor or write for full details . . . Made by the world's oldest and largest maker of long-playing needles.



PERMO PRODUCTS CORP.
6415 Ravenswood Ave., Chicago



Here is A Smart Service Man



He makes money by using the latest development in tools for stapling wires. By using the amazing new WalSCO Staple Driver, wires and cables can be installed twice as easy—much neater—in half the ordinary time. It staples in corners, behind pipes, into moldings, and many places never accessible with the hammer and ordinary staples. The staples can be driven into hard surfaces such as mortar, brick, etc. Magazine works automatically and holds strips of staples which come in several colors. Staple Driver and staples are inexpensive.

FREE CATALOGUE

Ask your jobber for demonstration and Catalog No. 41-W of all WALSCO Products or write

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

PILOT 1451 3 WAY

Hum when operated on ac line . . . leads in filter choke short after heating. Remove outer insulation, separate, tape and secure leads and rewrap entire choke.

RCA U-40

Cuts off and on during record reproduction . . . pickup shorting switch adjacent to tone arm on underside of changer has spring out of adjustment or bent.

RCA 5X

Weak reception . . . short between 75 cathode and 43 grid at the sockets. Pilot light flickers . . . defective line safety switch.

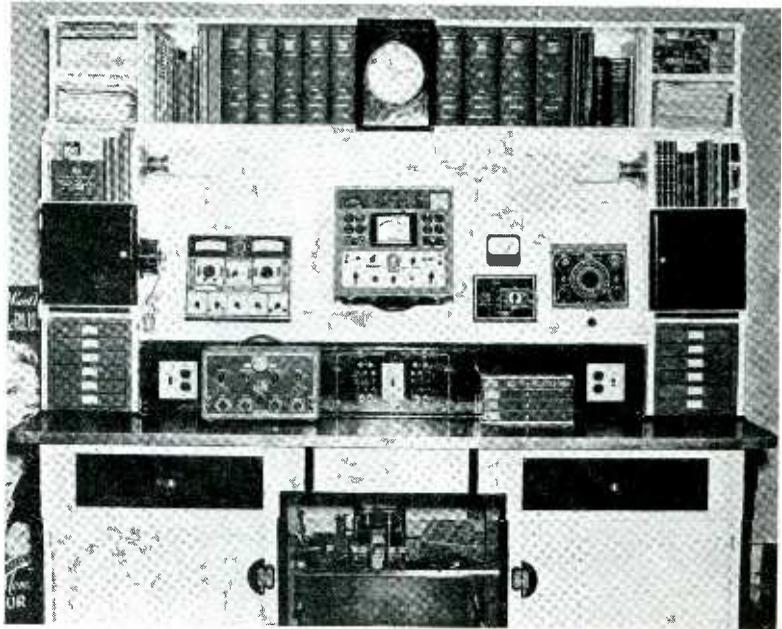
WESTINGHOUSE WR-676

Plays on battery and dc, not on ac . . . check filter for open.

WESTINGHOUSE WR-272

Intermittent . . . leads of .0056 mfd condenser in oscillator sometimes loosen up.

DELUXE BENCH—Plenty of eye-appeal in this layout at C. R. Radio, Indianola, Iowa. All the essential test instruments needed for successful servicing are in full view. In addition, a complete set of reference manuals and books are on hand



WHEN THE RADIO OPERATES and the tuning eye does not, remember the resistor in the eye socket sometimes changes value or opens.

DISCOUNT RACKET

(Continued from page 15)

samples of all of the models which he expects to sell.

3. Support the national advertising of

SEARCHLIGHT SECTION

EMPLOYMENT and BUSINESS OPPORTUNITIES—SURPLUS STOCKS—RESALE MERCHANDISE

SCRANTON RECORD MFG. CO.

We offer you our complete and modern facilities for the manufacture of finished phonograph records.

Over thirty of the country's leading independent recording companies are already using this service and we solicit your inquiry.

SALES DEPT.

1775 Broadway, New York City

\$750 BOOKKEEPING SYSTEM

Post Paid
Especially Designed for
Appliance Radio Dealers

A direct, easy-to-understand system, devised by an expert accountant in your line of business. It is in practical use by many dealers everywhere.

THE KNAPHURST COMPANY
522 S. Clinton Street Chicago, Illinois

CORRECTION

In the advertising of the Recoton Corp. which appeared on page 67 of the October issue of Radio Retailing, the heading should have read "playback needles" instead of "cutting needles".

LEGAL NOTICE

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC. REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

Of Radio and Television Retailing, published monthly at Albany, N. Y., for October 1, 1940.
State of New York)ss.
County of New York)

Before me, a Notary Public in and for the State and county aforesaid, personally appeared D. C. McGraw, who, having been duly sworn according to law, deposes and says that he is the Secretary of the McGraw-Hill Publishing Company, Inc., publishers of Radio and Television Retailing, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, McGraw-Hill Publishing Company Inc., 330 West 42nd St., N. Y. C. Editor, W. MacDonald, 330 West 42nd St., N. Y. C. Managing Editor, None. Business Manager, Lee Robinson, 330 West 42nd St., N. Y. C.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) McGraw-Hill Publishing Company, Inc., 330 West 42nd St., N. Y. C. Stockholders of which are: James H. McGraw, 330 West 42nd St., N. Y. C. James H. McGraw, Jr., 330 West 42nd St., N. Y. C. James H. McGraw, James H. McGraw, Jr., and Curtis W. McGraw, Trustees for: Harold W. McGraw, James H. McGraw, Jr., Donald C. McGraw, Curtis W. McGraw; Curtis W. McGraw, 330 West 42nd St., N. Y. C. Donald C. McGraw, 330 West 42nd St., N. Y. C. Anne Hugus Britton, 330 West 42nd St., N. Y. C. Mildred W. McGraw, Madison, N. J. Grace W. Mehren, 73 No. Country Club Drive, Phoenix, Ariz. J. Malcolm Muir & Guaranty Trust Co. of New

LEGAL NOTICE

York, Trustees for Lida Kelly Muir, 140 Broadway, N. Y. C.

3. That the known bondholders, mortgages, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is. (This information is required from daily publications only.)

D. C. McGraw, Secretary.
MCGRAW-HILL PUBLISHING COMPANY, INC.
Sworn to and subscribed before me this 27th day of September, 1940.

[SEAL] H. E. BEIRNE,
Notary Public, Nassau County, Clk's No. 93, N. Y. Clk's No. 974, Reg. No. 2-B-609.
(My commission expires March 30, 1942)

RADIO and TELEVISION RETAILING

the Preferred publication of the Radio Trade

the manufacturer by a continuous local campaign, including every possible phase of publicity and aggressive promotion.

4. Make buying easy for the prospect, with alert, courteous and well-informed personnel.

5. Maintain an efficient service department to set up, install and service promptly all merchandise sold.

6. Make contacts after the sale, to insure satisfaction of the owner and to uphold the reputation of both dealer and manufacturer.

Do radio manufacturers need and want this service or not? If they do want it, *what are they willing to do to insure it?*



How Important is this Jewel to the Phonograph Industry?

Genuine sapphire cutting needles are employed to record the original masters of every phonograph record made. For direct recording, radio-recording engineers rely solely on the sapphire cutting stylus when results *must* be infallibly perfect.

NOW—the genuine sapphire playback needle has revolutionized the phonograph. Needle-changing is now as obsolete as cranking your car. Used in a feather-weight pickup (one ounce needle pressure) a sapphire needle will play 10,000 to 20,000 records (5 to 10 years average use) without requiring replacement. Further, record wear is almost completely eliminated. Think what this means to the record lover.

Many new model phonographs are now equipped with *permanent* sapphire-needle pickups. Tomorrow, the sapphire needle will be an integral part of all fine phonographs.

Be sure the phonographs you sell incorporate PERMANENT SAPPHIRE-NEEDLE PICKUPS—it's the greatest selling point in the last decade!

ELECTROVOX COMPANY
424 Madison Ave. New York, N. Y.

DEALERS—WALCO SAPPHIRE NEEDLES, for all phonographs are available from your jobber. Ask for new descriptive circular.

FIGURES FOR COMPARISON

(Continued from page 23)

slightly greater than that of the latter store.

Similarly, in some stores the officers' salaries rates were quite low, because the officers engaged in some selling, so that part of their salaries was allocated to Selling Expenses. Some stores did much less advertising than others. Again, stores which deal more in portable merchandise had lower delivery costs than others, but they also had higher collection expense. Thus, all types of operating conditions are represented in the averages.

How to Compare

In order for you to compare your performance with that of the group, your expenses must be classified the same way. Certain items of expense were combined, as follows:

Salesmen's salaries included commissions paid to outside salesmen.

Delivery expense included auto depreciation and salaries of inside porters and others concerned with the delivery function.

Rent and heat did not include that for offices or warehouses.

Leasehold improvements included only the amortized share chargeable to this period.

All other administrative expenses included rent, heat and electricity for the office and warehouse (whenever it was possible to segregate these amounts), interest and bank charges, postage, stationery, printing, depreciation of fixtures and equipment and sundry small general expenses.

Radio Deserves More

In the smaller tabulation on page 23 we show for each department its average percentage of total sales, its average gross profit rate, and its average percentage to total gross profits. The table points out three significant facts:

1. The Refrigerator Department must have a high enough sales volume to overcome the low gross profit rate, in order for it to make its proper contribution to the total store's gross profit, and to justify the investment involved.

2. The "Other Major Department" can and should be a highly profitable one, and as such its contribution to the total gross profit may be an important amount.

3. The Radio Department, carrying as it does a high gross profit

TURNER U9-S with Impedance Selector Switch



gives you a
50 ohm mike
200 ohm mike
500 ohm mike
or
hi-impedance
at a FLICK of
the SWITCH

Now one mike does the work of four. Switch is color coded and legend plate on rear of mike explains various impedances. Battleship gray finish; adjustable saddle, removable balanced line cable, locking connector. Withstands heat, cold and rough handling. With 25 ft. balanced line cable set. List\$35.00

Turner "Challenger" Model CX

Crystal mike that is a rugged, dependable unit, in rich, brushed chrome finish. Fully protected for ham; rugged enough for toughest P.A. work. With 7 ft. removable cable set, using Amphenol connectors.

List\$15.00

Send for New Catalog



The TURNER Co.

915 17th St., NE., Cedar Rapids, Iowa

Crystals Licensed under Patents of The Brush Development Co.

Ro-TENNA
~RADIART'S ALL-MECHANICAL WIND-UP AERIAL IS ACTUALLY INSTALLED AND OPERATING SATISFACTORILY IN THOUSANDS OF CARS.

SEE your RADIART distributor

STANDARD OF COMPARISON
RADIART

WRITE FOR BULLETIN 640 **THE RADIART CORPORATION CLEVELAND, OHIO**

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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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rate, deserves to be pushed harder than the table indicates. It should be made to contribute a larger share of the total gross profit.

Of course, the recent spread into "Other Major Departments" has had some effect on the position of radios. Perhaps in some stores it has also brought about some slackening of personal interest on the part of the management, feeling that radios are able to take care of themselves. Where this is so, the condition should be corrected immediately.

SPECIALTY SALESMAN

(Continued from page 25)

his home. And in addition to all this, it must be a *porch-front* home. If that doesn't cut the field of possibilities down as low as possible, for a canvasser, I'd like to know where it is lower. And yet they are paid \$15 a week for it! Plus commission.

The sales manager told me he had never been able to see how one man could do two jobs, canvass and close, and gave me some of the reasons. I say he gave them to *me!* How I kept from kissing him, I don't know.

Do you get the significance of this completely? Do you realize just how much *better* the chances are with appliances? Perhaps this chart will show you:

	Appliances	Oil Burners	Porch Encl.
Home Renters...	X		
Home Owners...	X	X	
Owners of Porch-Front Homes...	X	X	X
Several items to offer,	X		
Two of which are self-buying ...	X		

One Right Way

Seriously, you appliance dealers, what do you think of all this? Are you wondering how it is done? It is done by keeping canvassing SEPARATED from closing.

But let's get away from all these places where outside selling is really tough and come back home to appliances where it is, comparatively, a soft snap. If proper methods prove their merit in a field where the going is so tough they *must* be employed, how should those same methods work in a field where the going is so easy that even improper methods can get by?

They should work wonders. They have. They will. Nevertheless, most appliance dealers expect their

men, new or old, each to do the two jobs. Do you know why?

Next month I shall tell you. For once you understand the reason, the real reason, there will be nothing left to prevent you from recognizing the benefits which come from their separation.

HOW TO PROMOTE FM

(Continued from page 26)

tion lines, would be a preview for a number of guests. A well arranged demonstration with the manufacturer or distributor lending assistance should be the lure for much store traffic and paying customers.

Demonstration

The New York trade finds that it is particularly important that the demonstration of FM receivers be conducted by salesmen capable of talking intelligently about its features. Turning the set on, tuning in a station and then merely inviting the prospect to listen, they say, is not going to sell a great many sets. Selling technique necessary to merchandise "staticless radio" is not, apparently, to be found in the average counterman and he should probably keep his hands off this department.

Many thought that FM is a natural for home demonstration. Here again, observations pointed to the fact that it was all very well in sales talk to highlight fine cabinetry, advancements, and other features but that it was paramount to stress the system's contribution to tonal perfection.

PERIOD CABINETS

(Continued from page 29)

period cabinets with radio phonograph combinations.

Stimulation

A well planned pep meeting for the store personnel to announce your period cabinets is a swell kick-off. Keep these pep meetings going once a month.

Whether you have yet discovered it or not *period cabinets sell twelve months throughout the year.*

Here is a new angle to profitable radio department operation.

GET YOUR SHARE OF EXTRA RADIO BUSINESS
 WITH THESE **FADA** HOLIDAY NUMBERS

Now Ready for Immediate Delivery
NEW 1941 FADA • 33 SERIES
 SUPERHETERODYNE

CAMERA-TYPE PORTABLES

FEATURING
 40 to 45 hours balanced "A" and "B" Battery Life.* Equipped with 1-Minimax Eveready #467 67 1/2 Volt "B" Battery and 3-#950 Eveready Flash Cells.* Gives 1/3 Longer Battery Life.* Double Tuned Iron Core IF Amplifier for Greater Selectivity and Sensitivity. A Camera type Portable with plenty of WALLOP.

- Model C33 - Black simulated Leather Case
- Model B33 - Dark Blue simulated Leather with Ivory Stripe
- Model M33 - Maroon simulated Leather with Ivory Stripe
- Model L33 - Genuine Cowhide Leather Case.

LIST PRICE
\$20
\$25



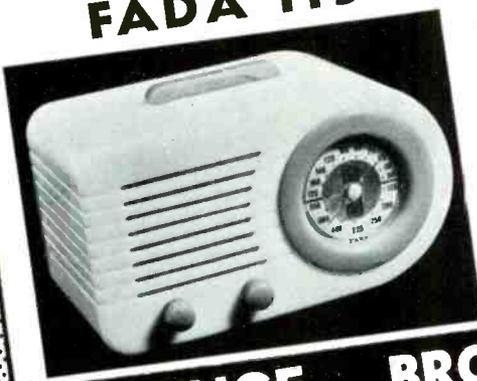
8" high, 4 3/4" wide and 4 1/4" deep.
 Weighs only 4 1/2 Lbs.

CELEBRATING TWO DECADES OF RADIO ACHIEVEMENT

Selling way up in the thousands and still going strong!

FADA 115 SERIES CATALIN MODELS

5 Tube AC-DC Superheterodynes with FA-DA-SCOPE LOOP ANTENNA and convenient DROP HANDLE



Your Choice of 5 Color Combinations in beautiful GEM-LIKE CATALIN CABINETS resembling many precious stones.

\$19.95

- MODEL 115A—All Alabaster Cabinet.
 - MODEL 115AR—Alabaster Cabinet with Red Appointments.
 - MODEL 115XA—Onyx Cabinet with Alabaster Appointments.
 - MODEL 115MA—Ruby-like Maroon Cabinet with Alabaster Appointments.
 - MODEL 115BA—Blue Lapis Lazuli Cabinet with Alabaster Appointments.
- All Cabinets have illuminated translucent Dial and drop handle.

"SINCE BROADCASTING BEGAN"

Worth the price for its Ornamental Value alone!

24 KT. GOLD PLATE MINIATURE PIANO MODELS
 Complete with a 1941 Fada Superheterodyne Radio.



Model 182G
 OPERA BABY GRAND

Faithfully reproduced in every detail. A Deluxe XMAS GIFT that will never be forgotten. Every woman wants one on sight (and men too)

- Model 182S-Spinet Radio **\$39.95**
- Model 182-G-Baby Grand Radio **\$49.95**

DIMENSIONS
 Model 182S—6" high, 10 1/4" wide & 6 1/4" deep
 Model 182G—7" high, 10" wide & 10" deep



Model 182S
 SPINET REPLICA

FADA RADIO & ELECTRIC COMPANY
 30-20 THOMSON AVENUE
 LONG ISLAND CITY, NEW YORK

52 MILLION PEOPLE WILL READ ABOUT ADMIRAL—HERE'S HOW:

	CIRCULATION	READERS PER ISSUE
Saturday Evening Post	3,307,199	13,050,000
Collier's	3,020,348	14,750,000
Life	2,895,685	20,450,000
Esquire	468,362	4,500,000
	9,691,594	52,750,000

Admiral GOES NATIONAL!



Lovely to look at!



Open the door to pleasure!

THE NEW 1941
Admiral
RADIO
PHONOGRAPH
with AUTOMATIC
RECORD CHANGER



Admiral Model 64-K5 . . .

Radio at its best . . . the finest recorded music whenever you or your friends want it . . . no wonder this new Admiral Radio Phonograph is the life of the party. 5-tube (including power rectifier) AC superhet radio has built-in Aeroscope antenna. Heavy duty dynamic speaker with bass compensation assures finest tone quality. Automatic record changer plays 12" or 10" records.

ADMIRAL—AMERICA'S SMART SET
See Admiral before you buy! Table models in wood or plastic . . . portables . . . consoles . . . radio phonographs . . . \$9.95 to \$225.00.

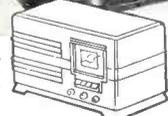
SENSATIONAL STREAMLINER

Admiral 15-D5
5 tube (including power rectifier) AC-DC superhet with built-in Aeroscope. Beautiful mahogany plastic cabinet.

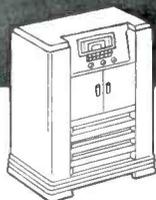
\$995*



Admiral 50-J6 . . .
Smart AC-DC superhet in genuine walnut cabinet.



*All prices slightly higher in far west and south.



ADMIRAL 62-B7
RADIO-PHONOGRAPH

Open the Door!

OUT SLIDES ADMIRAL'S NEW AND EXCLUSIVE

"SLIDE-AWAY" PHONOGRAPH
WITH AUTOMATIC RECORD CHANGER

At your fingertips . . . the thrill of both radio and recorded music! 7-tube (including power rectifier) AC radio with built-in directional Super-Aeroscope antenna and R.F. stage brings in Europe direct. Has automatic tuning . . . concert dynamic speaker with special bass compensation . . . "Sofglo" dial. Automatic record changer plays 12" or 10" records. Continental Radio & Television Corp., Chicago, Ill.

FULL-COLUMN and double-column advertisements appearing in four leading national magazines . . . circulations nearly 10 million . . . readers more than 52 million! Two of the ads are reprinted here. Look them over . . . see the exceptional values featured.



Admiral . . . the hottest line in radio!

With over 52 million people reading about Admiral, sales are topping all previous records. Get in touch with your distributor today . . . don't delay . . . have him show you the many fast-selling, profit-making values. Cash in now on the hottest line in radio!

Distributors—A few desirable franchises still available. Write or wire for details.

CONTINENTAL RADIO & TELEVISION CORP.

3800 W. Cortland St.

Chicago, Ill.

Export Office: 116 Broad St., N. Y.