

RADIO

SEPTEMBER • 1940

Fall CAMPAIGN Number

*and
Television*

RETAILING

A McGraw-Hill Publication

Price 25¢



IDEAS for "Vital Last Quarter"

PROMOTION • STORE TRAFFIC • OUTSIDE SELLING • DEMONSTRATION • DISPLAY • SERVICE

**No Other
Line Gives You
Such Complete
Coverage**

P. R. MALLORY & CO., Inc.
MALLORY

Replacement CONDENSERS



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

You can be absolutely sure of exact replacements, and thorough coverage of every condenser need because the Mallory line of Replacement Condensers has been specifically developed around an exhaustive study of millions of condensers in *all* makes and models of standard radio receivers.

Mallory Tubular Condensers are available in over 50 ratings with common anode, common cathode and separate sections where sizes permit. All types afford exclusive mounting features that save time and money on every installation.

*FP (Fabricated Plate) Condensers, made by Mallory, have brought about a new high in efficiency and performance. Averaging field returns of only 5/100ths of 1% . . . FP Condensers give you features not duplicated by any other condenser.

Mallory Type BB Condensers likewise afford Fabricated Plate Construction and give all of its advantages in these smaller sizes. Encased in a heavy, one-piece, drawn aluminum can, they are insulated with an attractive cardboard tube well marked for rating identification. Strong internal construction eliminates troublesome open circuits.

See your Mallory distributor today. He can give you complete information on the full Mallory line . . . and you'll find him well stocked to serve you.

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

Cable Address — PELMALLO

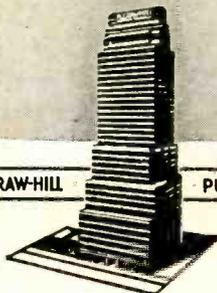
Use

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

SEPTEMBER 1940

W. MacDONALD..... Editor
 W. CARL DORF..... Associate Editor
 VIN ZELUFF..... Technical Editor
 A. XIQUES..... Assistant Editor
 HARRY PHILLIPS..... Art Director

LEE ROBINSON..... Manager
 R. E. McGRAW..... Sales Promotion Manager
 K. R. GROENER..... Western Manager

McGRAW-HILL PUBLISHING COMPANY, INC.

JAMES H. McGRAW
 Founder and Honorary Chairman

PUBLICATION OFFICE

99-129 NORTH BROADWAY, ALBANY, N. Y.
 EDITORIAL AND EXECUTIVE OFFICES
 330 WEST 42ND STREET, NEW YORK, N. Y.
 Cable Address: MCGRAWHILL, New York

James H. McGraw, Jr..... President
 Howard Ehrlich..... Executive Vice-President
 Mason Britton..... Vice-Chairman
 B. R. Putnam..... Treasurer
 D. C. McGraw..... Secretary
 J. E. Blackburn, Jr..... Director of Circulation

RADIO *and Television* RETAILING, September, 1940, Vol. 25, No. 9. Published monthly, price 25c copy. Allow at least ten days for change of address. All communications about subscriptions should be addressed to the Director of Circulation, 330 West 42nd Street, New York, N. Y.

Subscription rates—United States and possessions, Canada, Mexico and Central American countries \$1.00 a year, \$1.50 for two years, \$2.00 for three years. Great Britain and British Possessions 12 shillings a year, 24 shillings for three years. All other countries \$2.00 a year, \$4.00 for three years. Printed in U. S. A. Entered as Second Class Matter, April 29, 1939, at Post Office, Albany, N. Y., under the Act of March 3, 1879. Cable address: "McGrawhill, New York." Member of A.B.P. Member of A.B.C. Copyright 1939 by McGraw-Hill Publishing Co., Inc., 330 West 42nd Street, New York, N. Y.

Branch Offices: 520 North Michigan Ave., Chicago; 68 Post St., San Francisco; Aldwych House, Aldwych, London, W.C.2; Washington; Philadelphia; Cleveland; Detroit; St. Louis; Boston; Atlanta, Ga.

FALL CAMPAIGN NUMBER

Sales MARKET

This Vital Last Quarter.....	17
People and Their Purchasing Power.....	17
Unit Sales and Dollar Volume.....	18

Sales METHODS

Promotion.....	21
Traffic.....	23
Selling.....	25
Demonstration.....	29
Display.....	33
Service.....	35

Sales AIDS

What's Wrong With This Picture.....	18
You Are Selling Music.....	20
Capsuled Dance Band Data.....	22
Tripling Home Entertainment.....	24
Tone.....	26
How to Tell Quality Furniture.....	28
F-M Radio Stations.....	32
Parts Make or Break Performance.....	34
Fall Campaign Aids.....	38

Extras

Service Partnerships.....	40
Election Sound.....	41
Selling Appliances.....	42
New Products.....	45
On the Newsfront.....	55
Circuits of the Month.....	63
Shop Shortcuts.....	68
Tricks of the Trade.....	70

FM DEMONSTRATIONS MAKE RADIO OWNERS EAGER TO REPLACE THEIR PRESENT SETS!



**NOW THAT FM IS HERE
WE'RE GOING TO GET
A NEW RADIO . . . A
STROMBERG-CARLSON**

To the public, FM is the symbol of new radio enjoyment. To *you*, FM is the most powerful, most profitable sales builder in the industry. Dealers say that FM "Staticless" demonstrations actually make radio owners *eager* to trade in their old sets.

Get *your* share of this worthwhile business with Stromberg-Carlson—the only line that includes FM backed by over a year's field experience . . . the line with the exclusive Labyrinth and Carpinchoe Speaker Audio System . . . and the line with powerful national magazine advertising support.

**STROMBERG-CARLSON TELEPHONE MFG. CO.
ROCHESTER, N. Y.**

All Stromberg-Carlson FM Receivers are licensed under Armstrong Wide-Swing Frequency Modulation patents.

**During September, 10,000,000
Owners of Radios *WITHOUT*
FM will read of the New
Stromberg-Carlsons
WITH FM!**



No. 535-PS AUTOMATIC RADIO-PHONOGRAPH with Sapphire Pick-up—NO NEEDLES TO CHANGE. Includes FM band, Labyrinth and Carpinchoe Speaker.



There is nothing finer than a
Stromberg-Carlson

Gems of the Radio Industry

*Beautiful! . . . Exquisite! . . . Handsome!
Gorgeous! . . . Gem-like! . . . Harmonizing!*

Are just a few of the exclamations made by those who have seen and heard the

New 1941 **FADA** Radio 115 SERIES CATALIN MODELS



Outstanding among the many new FADA 1941 models are these eye-thrilling, colorful RADIOS. The chassis is a powerful 5 tube Superheterodyne with 7 tube performance, operating on either AC or DC current. The set has its own built-in FA-DA-SCOPE LOOP ANTENNA. The convenient DROP HANDLE makes it easy to carry from room to room. For STYLE and BEAUTY these GEM-LIKE CABINETS are breath-taking in appearance. They resemble such precious stones such as Onyx, Alabaster, Ruby and Lapis Lazuli. Your choice of 5 color combinations are listed.

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.

All models in this group . . .

LIST PRICE

\$19.95

COMPLETE

SEND FOR DESCRIPTIVE CATALOG OF THE NEW 1941 FADA LINE

For 1941; FADA presents the most COMPLETE LINE in its history. TABLE MODELS in Plastic, Catalin and Wood from \$9.95. 3 WAY PORTABLES from \$19.95. Beautiful CONSOLES; PHONO-RADIO COMBINATIONS; HOME RECORDERS; FARM BATTERY SETS and EXPORT MODELS in every STYLE and PRICE RANGE.

Your name and address will bring you FADA'S NEW 1941 PORTFOLIO. SEND FOR IT TODAY! CASH IN on a BANNER SEASON with a BANNER LINE!

FADA RADIO & ELECTRIC CO., INC.

30-20 Thomson Avenue

Long Island City, New York

These models also available in 2 band
—16 Meters listing at \$22.95.

DISTRIBUTORS!

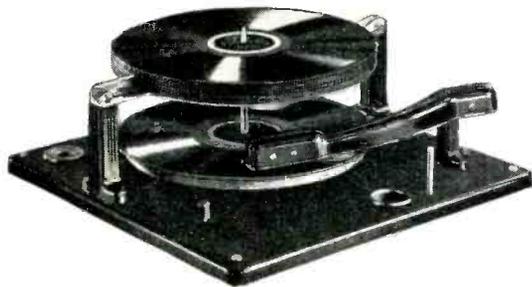
Some choice territory still available. Fill out coupon for details.

NAME

ADDRESS

CITY STATE

Farnsworth WEEK!



THE CAPEHART-FARNSWORTH CHANGER

... one of the many reasons why Farnsworth is the hottest combination line today. Another is that Farnsworth gives you *every* type and style of cabinets your prospects could possibly ask for. Most important of all, Farnsworth *values*, model for model, are not matched by any line ... in performance, in price, in design and in dealer profit.

A BIG NATIONAL AD EVERY WEEK

Farnsworth advertising in *Life*, *The Saturday Evening Post* and *Collier's* will crowd dealers' stores with prospects for this great new line of radios and phonograph-radio combinations.

Here are the first three of the many big ads that will pound home the dynamic Farnsworth sales message to prospects in your community ... ads with "sock" and power that set a pace 'way above the usual run-of-the-mill radio advertising.

EVERY AD IS YOUR AD!

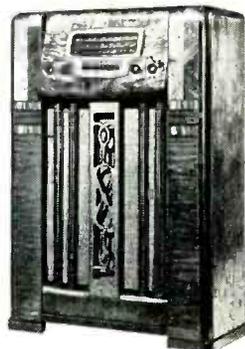
Every one of these national Farnsworth ads is designed to create permanent prestige for Farnsworth dealers ... without losing sight of the need for *immediate* store traffic and profits for you. Local tie-in ads are built the same way—to get prompt results. Hard-hitting promotional material hits the same fast pace.

ON THE AIR TOO!

National spot radio advertising in major cities from coast to coast will add another important push to the big swing to Farnsworth. All this, plus the industry's greatest line of combinations and sensational values in consoles, table models, portables and home recording, sums up to this important answer—*You're losing money every day that you delay "going Farnsworth"!*



← The Empire, another Farnsworth innovation in an automatic phonograph-radio, has "Tip-Top Tuning." To tune, the customer simply pulls out the convenient dial panel that's "always at hand whether you sit or stand." Many big features for little cost.



→ This big console model (BC-80) gives your customers a lot of radio for the money. Styled to blend with any room setting. And just chock-full of exclusive Farnsworth radio features that you can demonstrate.

NOT A DAY TO LOSE!

The Farnsworth advertisements are appearing RIGHT NOW in the three big national weeklies. Customers are coming in to Farnsworth dealers' stores. Sales are being made *today* ... with plenty more to pile up in the weeks ahead. Get the money-making facts from your Farnsworth distributor TODAY! Or wire, phone or write ... Farnsworth Television & Radio Corporation, Fort Wayne, Ind.

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



EVERY NEWS-STAND IS HELPING YOU SELL

...**"The Instrument Great Artists Choose!"**

RCA Victrola

What's BEHIND this Advertising?

**THE HOTTEST
RCA VICTROLA
LINE IN HISTORY!**

*Here's the Greatest Advertising Support that
ever backed any Phonograph-Radio!*

"Choose the Instrument Great Artists Choose!" That's the theme of the biggest national advertising campaign ever devoted to the RCA Victrola line...the *biggest* campaign offered by *any* manufacturer of phonograph-radios!

Pages... double-page spreads... full color! Circulation that reaches millions and more millions!

Results? The biggest buying-tide in the history of phonograph-radios is on *right now!*

Acceptance of RCA Victrola features...insistence on genuine RCA Victrola models...is the greatest in history!

Let this great tide sweep *you* on to greater profits! Every news-stand in your town is helping you sell the genuine RCA Victrola! Take full advantage of this greatest advertising support—you're *sure* to prosper!

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



RCA VICTROLA ANNIVERSARY MODEL V-405... Automatic record changer, 10" or 12" records... new, exclusive RCA Victor tone guard... American, foreign reception, 3 bands... 12 watts push-pull output... stabilized electric tuning on 6 stations. Large record storage compartment in cabinet. Also available with home recording as Model VHR-407.



DE LUXE RCA VICTROLA V-300... Automatic record changer for 10" or 12" records... new exclusive RCA Victor tone guard... 10 tubes, plus Magic Eye... American, foreign reception, 4 bands... Overseas Dial, special 31-meter spread band... new stabilized electric tuning... Supersensitive 15" Electro-Dynamic Speaker plus 20 watts push-pull output.

RCA Victrola

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



RCA VICTROLA V-100... 5 RCA Victor Preferred Type Tubes, Superheterodyne circuit... constant-speed, self-starting motor... built-in Magic Loop Antenna... plays 10" or 12" records with lid closed.



AREAL JOB FOR TUBES!

Every person seated in the world's largest stadium SOLDIER FIELD, CHICAGO clearly hears each word the announcer speaks.

NO WONDER RAYTHEONS ARE USED!

How would *you* like to make such a sound installation? If you did you would be forced to use the finest equipment obtainable. And undoubtedly—as was done at Soldier Field, Chicago—you would use the best tubes obtainable—RAYTHEON.

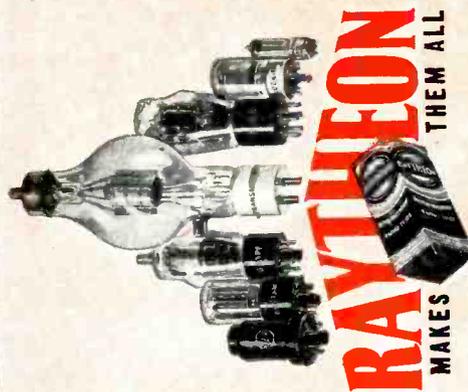
The thinking sound expert, serviceman and tube dealer—those who technically analyze—know the best quality material helps to build up a business *quicker* than trying to get by with inferior merchandise. The fellow who sacrifices quality eventually

runs out of customers. The solid businessman gets bigger and bigger.

There is profitable prestige and business insurance in selling the best—RAYTHEONS. *Yet they cost you no more!*

Your RAYTHEON Distributor has an unusual tube deal for you. See him without delay.

Raytheon Production Corp., Newton, Mass., New York, Chicago, San Francisco, Atlanta.



WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS

PROFITS HIT ALL-TIME HIGH FOR COLUMBIA RECORD DEALERS!

Sensational Re-Pricing Plan Pioneered By Columbia Scoring Nationwide Triumph

● Columbia's bold move in slashing classical record prices has opened up mass markets never before exploited. From Los Angeles to Boston, dealers (with *full rebate credits* on their stock from Columbia) are reporting history-making volume on Columbia "Masterworks." Sales of a few weeks are more than sales of the past six months!

And this is only the beginning. Columbia's revolutionary move to bring the world's finest music within the reach of everyone has yet to realize its full benefit. Popular sales are on the way up, too—thanks to increased store traffic created by Columbia's intensive "Masterworks" advertising campaign.

Columbia is re-writing record history—and making more money for every Columbia Record dealer!



HERE'S WHAT DEALERS SAY ABOUT COLUMBIA'S DRAMATIC MOVE

The Boston Music Company, Boston, Mass.—“Since the Columbia ‘Masterworks’ announcement . . . we have enjoyed one of the best August months in record sales.”

. . .

Liberty Music Shop, Incorporated, Ann Arbor, Mich.—“At the new prices our Columbia volume has already doubled and we anticipate still greater gains when the fall season starts.”

. . .

Stradler's, Incorporated, Chicago, Ill.—“We have noticed in our monthly operating statement for August a decided increase in the sales of Columbia records over same period last year.”

The Record Album, Oakland, Cal.—“Sold more Columbia ‘Masterworks’ Records during the past month than our total volume for the previous 11 months.”

. . .

The May Company, Los Angeles, Cal.—“We doubled our sales force to take care of added business . . . unable to take care of the crowds adequately.”

. . .

The Emporium, San Francisco, Cal.—“Enlarging our facilities to take care of increased sales.”

. . .

H. F. Cole, Inc., Grand Rapids, Mich.—“Sales of ‘Masterworks’ increased more than 500%.”

Columbia Recording Corp., Subsidiary of The Columbia Broadcasting System, Inc. • Bridgeport, New York, Hollywood

COLUMBIA “MASTERWORKS” RECORDS



HERE IS THE CAMPAIGN THAT WILL STIMULATE YOUR BUSINESS...ONE OF THE GREATEST RADIO SALES PROMOTIONS OF ALL TIME.

● **IN LOCAL NEWSPAPERS**...with jumbo advertisements running regularly in newspapers in every territory, telling the story of the new 1941 Emerson Line and high-spotting outstanding models.

● **IN NATIONAL MAGAZINES**...full-page and half-page color advertisements in major national magazines—with endorsements of famous motion picture and radio celebrities.

● **IN DIRECT-BY-MAIL ADVERTISING**...attractive literature and dodgers for dealer distribution will get across the wide selection of Emerson Models for every purpose and every purse.

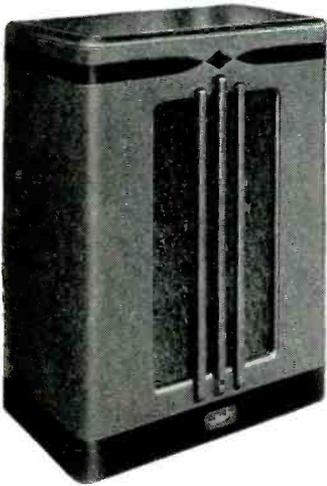
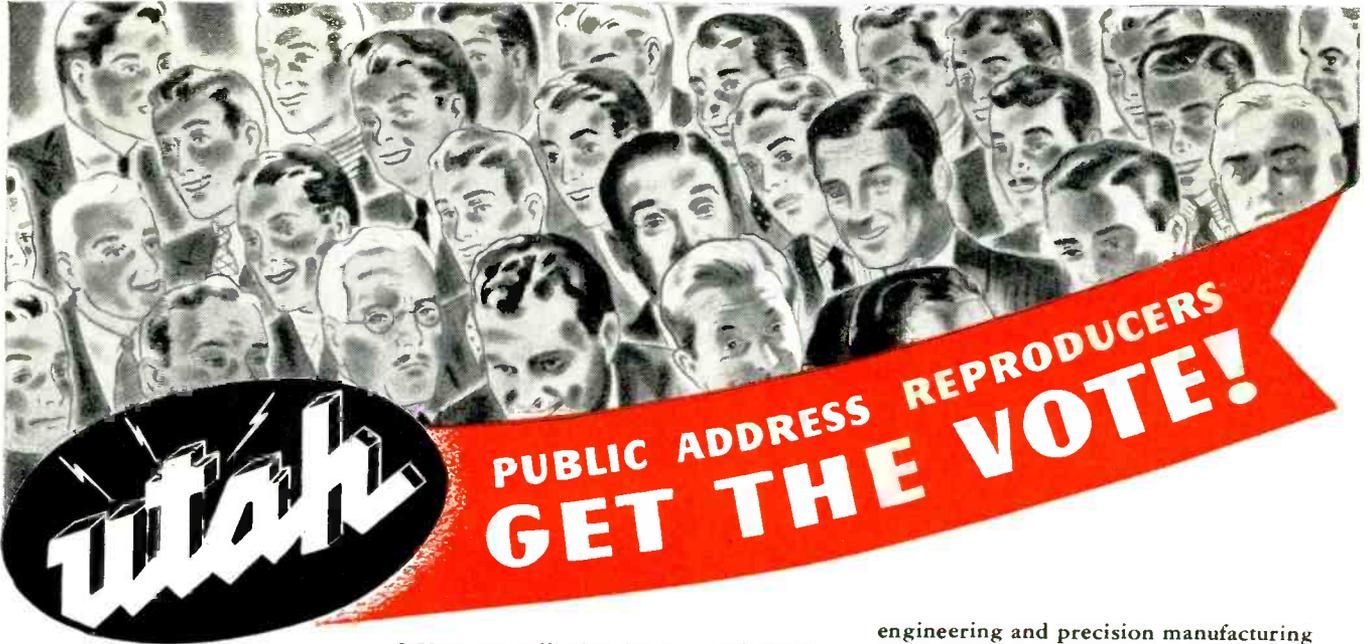
● **IN STORE WINDOWS**...crowd-stopping streamers, window displays and reprints of national magazine advertising will tie up your store with the complete over-all campaign.

● **ON STORE FRONTS**...powerful color posters and metal store front fixtures will "identify" your business and head customers your way.

● **IN YOUR STORE**...a new type of "talking" exhibit and "triangle" banners will enhance the appearance of your store and enable you to display and demonstrate Emerson Models to the best advantage.

Prepare now to CASH IN on this great Sales Drive
WATCH FOR EMERSON DISTRIBUTOR ANNOUNCEMENT

EMERSON RADIO AND PHONOGRAPH CORP., NEW YORK, N. Y.
WORLD'S LARGEST MAKER OF HOME RADIO



● You, too, will give the new Utah Public Address Reproducers your vote when you see and hear them. They have won the immediate acceptance and approval of the industry.

Through these new reproducers, Utah

engineering and precision manufacturing have again scored an outstanding triumph. They include the latest and most worthwhile refinements in sound equipment construction. They provide an easy means of profitably meeting the most exacting requirements.

Utah's NEW BAFLEX REPRODUCER

In the new Utah Baflex Reproducer, Utah engineering has incorporated all the latest developments and improvements of reproducers for public address systems, schools, colleges, taverns, dance halls, auditoriums, clubs, etc. They are available in four models.

These new Utah Public Address Reproducers are marked by a total absence of "back radiation." There is no distortion in the greatly improved bass response.

Two models are especially designed for television and Frequency Modulation receivers which require a wide audio frequency range. The frequency response has a range up to approx. 9500 cycles per second.

The cabinets are of sturdy, extra-heavy construction, scientifically designed to eliminate cabinet vibration and resonance. The cabinet design is strikingly modern, with an attractive, durable satin bronze finish.

THE NEW Utah BI-DIRECTIONAL SPEAKERS

The Utah Bi-Directional Speaker embodying the latest speaker design and construction features, has been especially developed and engineered for factory call and paging systems.

Their sturdy construction and improved

design combined with their popular price make them ideal for factories, hotels, clubs, etc. The baffles are molded, non-metallic. There is no excessive low frequency response to distort intelligibility. A swivel joint bracket assures correct mounting.



Utah's NEW WALL REPRODUCER

The new Utah Wall Reproducer is the effective solution for sound systems that require a reproducer for music as well as voice. Its low price makes it an economical one as well. The finish blends with any decorative scheme.

The tone quality has been immeasurably improved by the molded, non-metallic housing. Ideal coverage of a given area is assured because of the scientifically engineered angle of this new Utah Wall Reproducer.

AND 107 OTHER UTAH SPEAKERS

In the balanced line of Utah Speakers there is a speaker to meet every requirement. Utah engineers will be glad to help you solve your speaker problems.

WRITE FOR CATALOG

Be sure to have complete information about Utah Speakers; write today!

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

to QUALIFYING MERCHANTS...

The Magnavox policy of restricted distribution, absolute price maintenance, and assured dealer profits has gained the enthusiastic support of America's finest stores. Thoroughly magnificent performance . . . beautiful traditional furniture . . . incomparable fidelity of tone . . . outstanding values in every price group . . . backed by national advertising in class magazines—have created unprecedented public demand.

Magnavox instruments have set the style trend and the performance goal for the industry . . . with authentic furniture styling that is widely imitated and matchless fidelity of tone that make high priced units *fast sellers*. This season's innovations again put Magnavox miles ahead with twenty magnificent models having many basic new developments and exclusive Magnavox features . . .

1. Distortionless wide-range reproduction—possible only with the new Magnavox Duosonic speakers.
2. New deluxe 15-record (intermixing) changer.
3. Low pressure jeweled permanent-needle pick-ups for long record life and noiseless reproduction.
4. Frequency Modulation at its best . . . optionally available.
5. Recording with truly professional quality . . . also optional.

No other line is so thoroughly stamped with quality and beauty from the bottom (\$29.95) to the top (\$550). You need this line to *sell up* and corner the quality business in your community.

Authentic Chippendale Commode in mahogany or walnut . . . automatic changer . . . 12 watt foreign and domestic radio . . . interference rejector . . . push-pull beam power . . . 12-inch Duosonic (double cone) Magnavox speaker. Compare it with anything under \$200!



Magnavox factory-to-dealer franchises open in many territories. Write for details!

MAGNAVOX

The Oldest Name in Radio

The New CHIPPENDALE Commode \$139.50

THE MAGNAVOX COMPANY, INCORPORATED • FORT WAYNE, INDIANA

TRUST G-E TO TURN OUT

WINNERS!

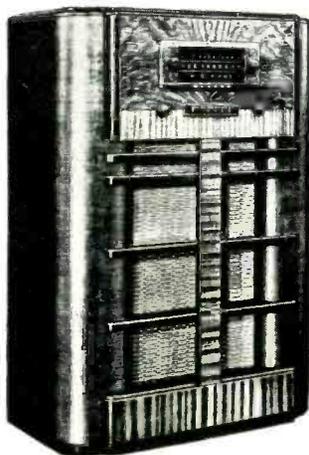
Don't fail to see and to hear the brilliant new line of G-E Golden Tone Radios. It's the Leadership Line for '41!

Every set — a star! Tops in tone — tops in styling — tops in sales performance!

Display these sensational new radios prominently — on your sales floor, in your windows. Then watch how sales mount.



INVESTIGATE Get in touch with the G-E Radio Distributor — today.



MODEL J-805—Special Electioneer Console. Priced to sell where the sales are thickest.



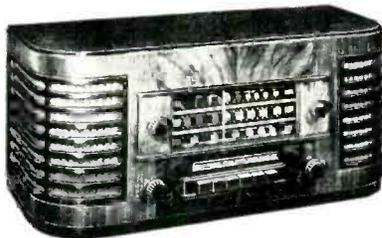
MODEL J-809—A Gorgeous Combination. Equipped with Special "Roll-Out" Phonograph Compartment.



MODEL JFM-90—A New FM Translator That Permits Practically Any Standard Radio To Receive Frequency Modulation Broadcasts.



MODEL J-51 — Special Electioneer Table Set. Splendid Design. Outstanding Value.



MODEL J-71 — De Luxe Table Model. Equipped with Frequency Modulation Key — 3 Bands—Dual Beam-a-scopes.



MODEL JM-7—Something Different! A Portable Home Recording Record Player Offered At A Price Surprisingly Low.

RADIO AND TELEVISION DEPARTMENT, BRIDGEPORT, CONN.

GENERAL ELECTRIC



*Your General Purpose
Public Address Projector*

When the new Type "S" Peri-Dynamic Projector was introduced at the June Trade Show, immediate and wide acceptance throughout the public address industry was prophesied. All of these predictions have now materialized with even greater emphasis than was prophesied. High power handling capacity (15 to 25 wats), low cost and outstanding ability to reproduce both speech and music with a crisp clear cut quality fully justifies sustained leadership in this new product. Public address dealers and engineers who are not familiar through experience with this new product will do well to place their orders immediately. A steady increase in factory production permits prompt delivery.

Dealer price Type "S" Peri-Dynamic Projector (No. 3FH-81) complete with Permanent Magnet Speaker installed, \$31.20 Net (mounting stencils extra). Dimensions: 24-inch bell; 30 inches overall length.

by

Jensen
6601 SOUTH LARAMIE AVENUE • CHICAGO
CABLE ADDRESS: JENRAD, CHICAGO

NOW...THE PERIOD BEAUTY AND
 SUPERB PERFORMANCE MILLIONS HAVE WANTED
...Priced to let them Buy!



Leading Dealers Helped
 Us Create Them to Bring
 Real Profits Back to Radio

ACTUALLY DESIGNED in cooperation with more than a dozen leading dealers, to give all dealers *what customers with taste are demanding!* Built to challenge \$500 instruments in tone, performance and beauty . . . and priced within reach of modest budgets! That's why dealers call the Concert Grand line a revolutionary achievement!

Authentic period designs, in choice of walnut, mahogany or blonde mahogany, give the nine Concert Grands cabinet beauty that has long been wished for by prospects with good taste in furnishings . . . beauty that will last through the years.

And performance is equally advanced. With Magic Baton tone controls for complete mastery of tone balance . . . new Cur-

vilinear speaker with resilient baffle . . . new reserves of undistorted power . . . new Magic Antenna controlled from tuning panel . . . and many other improvements, the Concert Grand provides radio enjoyment such as few have known before.

And new Silk Glove Automatic Record Changer, handling up to 14 discs, operates so deftly that it *eliminates all fears* of damage to cherished records, false starts and other common troubles.

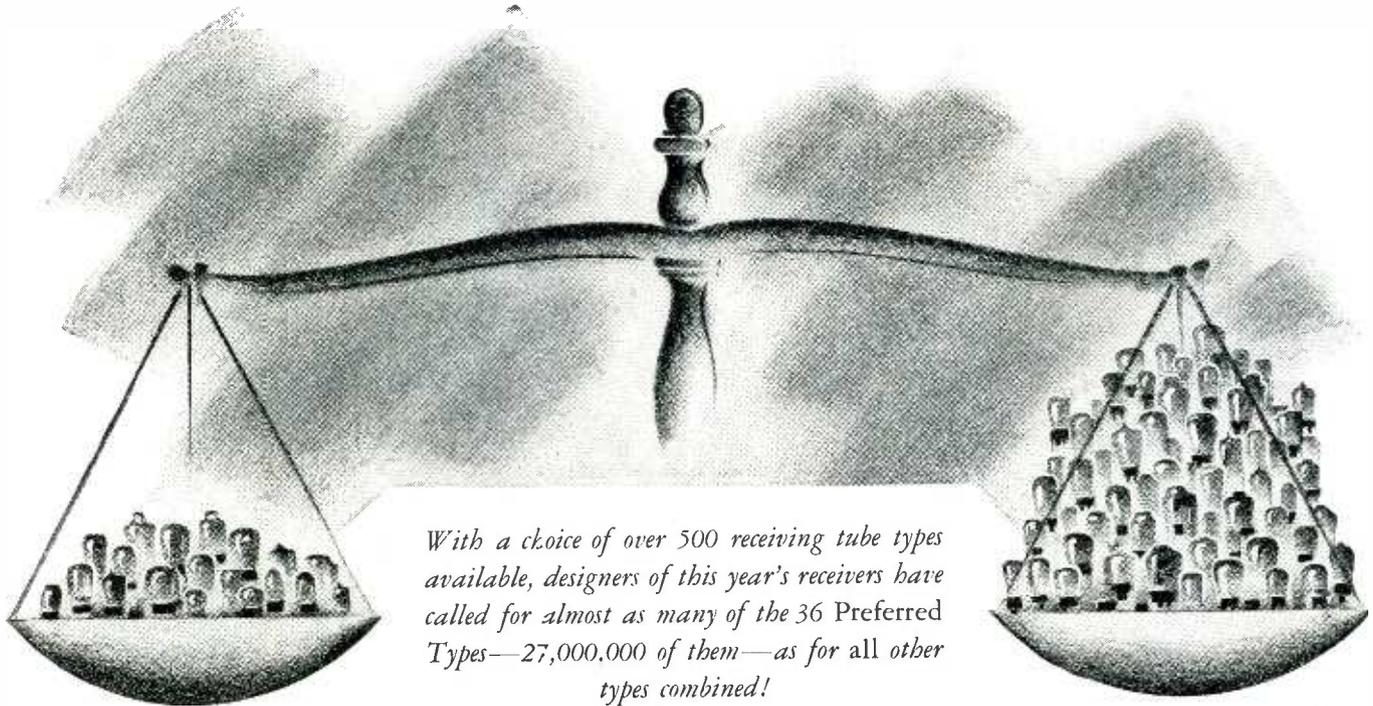
Because Concert Grands are what prospects want, they are now featured by Sherman-Clay, Jenkins Music Co., and Wurlitzer stores, Birkel-Richardson, Marshall Field and other leading music and department stores. See your Stewart-Warner distributor for details, or write the factory direct.

Concert Grand
 BY STEWART WARNER

Another Stewart-Warner product, completing a full line of fine radios, radio phonographs and radio-phono-recorders. Also makers of Dual-Temp Refrigerators and Scotch Maid Electric Ranges.

36 TYPES = 27,000,000 TUBES

FOR 5,000,000 OF THIS YEAR'S NEW RECEIVERS!



With a choice of over 500 receiving tube types available, designers of this year's receivers have called for almost as many of the 36 Preferred Types—27,000,000 of them—as for all other types combined!

"36 PREFERRED TYPES"

"490 OTHER TYPES"

OF ALL RCA TUBES now being supplied to set manufacturers for new radios, *better than 9 out of 10* are now Preferred Types! Of all tubes of *every* make, by *every* tube manufacturer supplying tubes for new radios, nearly half are Preferred Type numbers!

This is a good thing! Good for us. Good for *you*. It means that this year's 5,000,000 receivers using Preferred Type Tubes will simplify replacement-tube inventories for distributor, dealer and serviceman alike...will give increased turnover of fewer, faster-moving tube types—faster deliveries, from manufac-

turers' *stock*—and better, more uniform tubes!

18 important radio manufacturers have endorsed and adapted the RCA Preferred Type Tubes Program because they, too, have benefited. Practically any type of receiver can be designed for finest performance at lowest ultimate cost. The RCA Preferred Type Tubes Program is not only the *best* suggestion ever advanced to solve the headache of "too many tube types"...it is the *only* constructive step so far offered! It deserves your support—for your own benefit!

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



Preferred Type Tubes



RCA MANUFACTURING CO., INC., CAMDEN, N. J.
A Service of the Radio Corporation of America



Here are Two New
Westinghouse *21st Birthday*
Radios I'm going to **PUSH**
this Fall

Cool weather means more time for home entertainment. That's why these two new Westinghouse models are so popular. The first is a combination radio phonograph and home recorder that will enable you to make the most of this fascinating hobby. The second is a superb table model, of unexcelled tone and performance, at a modest price. These two Westinghouse 21st Birthday instruments are priced for fast selling . . . with a worthwhile profit to you on every sale.



ANOTHER ENTERTAINMENT STANDOUT! MODEL WR-290

Built for those who are willing to pay a little more for the best in table model tone and performance. High quality 3-band circuit with tuned R.F. stage. Push-pull output and powerful 6-inch speaker. Upright walnut cabinet in eye-catching "waterfall" design.



WHAT AN ENTERTAINMENT VALUE!

MODEL WR-486. See how much you can offer your customers . . . at a price many of them have paid for a standard console radio.

- Superb 9-tube radio . . . with push-pull output, 12-inch dynamic speaker, loop antenna, and 5 station push-button tuner.
- Automatic phonograph . . . plays six 12-inch or seven 10-inch records.
- High quality cutting head . . . makes recordings, either of the radio program or by microphone.
- Provision for making recordings of other records. (Separate record player needed.)
- Microphone and speaker may be used for home entertainment or as public address system.
- Supplied complete with crystal recording microphone and six blank records.
- Handsome cabinet of beautifully grained, hand rubbed walnut with divided lid.

Write or phone your Westinghouse Distributor today!

Westinghouse *Precision*
RADIO

CHALLENGE TO INDUSTRY'S PATRIOTISM

Calls for Plain Speaking

IT is a pity that the greatest national defense effort in American history had to be made during a presidential election campaign. For a modern defense effort involves an intensely practical industrial project, while an election campaign involves an intensely emotional political propaganda. And those two don't mix.

That, as I see it, is the chief reason for the welter of claims and denials, charges and counter-charges that have been getting in the way of contracts for planes, tanks, guns and all the rest of the armament for which the American people are so nervously peering down the road.

We are told that the managers of industry, smarting and suspicious under the repeated attacks of government officials for some years back, have been reluctant to assume the abnormal risks of defense contracts without commensurate safeguards, and that the politicians who must authorize those safeguards have been reluctant to do anything that might be construed as letting down the bars for unscrupulous business men to exploit the national emergency. For the one, the business risks of full speed ahead have been too great; for the other, the political risks of full speed ahead have been too great. So we don't go full speed ahead.

This is not written to increase that clamor of re-primination on either side. On the contrary, it is an appeal for some decent and thoughtful consideration on the part of all concerned—consideration for the urgent needs of the nation, for the problems and responsibilities of both the politicians and the industrialists, for the elementary principles of prudent business management, and for the good opinion of the man on the street. He is neither a politician nor an industrial executive. But his hide and his pocketbook are at stake in the national defense program—and he knows it. He has a right to the low-down on what is going on. And if he is left in ignorance or deliberately deceived, for the sake of either political or business whoopee, the payoff will be mighty poisonous political medicine for the politicians and equally poisonous business medicine for the business men who may be responsible.

* * *

The plain stark fact, to be faced squarely by us all, is that the national defense program is an emergency project—a desperately urgent emergency project.

As in every emergency that confronts a democracy, we are harassed by a confusion of counsel. As always, some of the confusion arises from honest but conflicting judg-

ments, some of it from ignorance or muddy thinking. But, unhappily, much of it reflects the deliberate purpose of self-seekers to fish in troubled waters—to capitalize the conjunction of a national emergency and a political campaign to boost their own interests. Already the charge that American business men are unpatriotic and interested only in profit has been put out as a smokescreen to cover up deficiencies for which business men are in no way responsible.

Now the man on the street finds it hard to see through this maze of excited contradiction. Not because he isn't smart—the average American can think straight enough *when he has the facts*. But in this case the facts are obscure and complicated—they have to do with matters that are strange to him. And to make it worse, at the height of his confusion, raucous voices constantly assail his ear with "simple" explanations of it all. But, as so often happens, most of these "simple" explanations make the matter a lot simpler than it really is.

* * *

Consider, for example, the cry that "industry refuses to get busy on national defense until its profits are guaranteed". Very clear and simple, to be sure; but also very false. The charge that American capital is "on strike" in the hour of national need. As silly as it is simple. The assertion that our manufacturers "won't even talk with a government anxious to place orders with them, without large financial concessions", and that "American corporate industry refuses to expand its resources for defense until it receives immunity from proper taxation". The resounding demand that we "conscript wealth as well as men"—whatever that may mean.

Particularly political has been the attack on the aircraft industry. It has been made to appear that aircraft manufacturers were instituting a sit-down strike because, in their greed for profits, they demanded more than 8%. Actually the 8% was not a net profit at all and the only concern of the manufacturers was to fight against incurring losses under the 8% limitation. And army and navy officers have sustained the aircraft manufacturers' viewpoint.

The air is full of explanations which, however simple they may sound, do not explain. And in most cases, I am convinced, the purpose of those who offer them is not to explain but to inflame. Those who try honestly to explain these issues from either side, find it impossible to do the job in such ringing phrases.

As I have said, our country has been caught short. As

a result, there are many reasons for the confusion and controversy. The plain fact is that we can produce our war equipment by only two means: (1) by converting the industries of peace into the industries of war, so far as that is possible; and (2) by building from scratch the new facilities we need to supplement them. In other words, we must create—with desperate haste—a new industry in America—an armament industry.

Right there is the crux of the problem that now confronts the industrialist sincerely trying to equip himself for his part in national defense. For this new armament industry is not the ordinary business risk against which he has learned to weigh the interests of his employees and his stockholders. It does not deal with familiar products and processes. It is not continuous—at least it has not been heretofore in this country—and it may fold up as suddenly as it has opened. It cannot hope to serve thousands of potential customers: it has but one sure customer—the United States Government—and wielding the sovereign power that customer can do just about as it pleases with respect to its needs and demands. Which means that not even this one is a *sure* customer.

* * *

No more unfair or deceptive charge ever has been leveled against American industry and American business men than the accusation of being unwilling to take the normal business risks of the defense program. The risks they are trying to minimize—they cannot possibly avoid them all—are very special and extraordinary risks indeed. So clearly is that true, that I doubt very much whether such questions and charges ever would have risen were it not for the fact we are engaged in a political campaign.

Already some of industry's great units have gone ahead with the building of new facilities, the purchase of special materials, and the actual production of armament in the face of all risks, gambling that their government eventually would work out some reasonable plan to protect them against excessive loss. Others, doubtless will follow suit.

But many other companies, for one reason or another, are not in position to do that. So before they begin to expand their facilities to handle defense contracts, they have asked their *only potential customer for those new facilities* to guarantee them—not excessive prices, *not* exorbitant profits, *not* immunity from taxation, as we are being told, but simply against the excessive losses that may result from very extraordinary conditions.

* * *

As this is written, it looks as though the legislation and the rulings necessary to accomplish this purpose soon will be forthcoming. Thoughtful and responsible officials of the government understand the situation and what is needed. But, unfortunately, their understanding and action will not quiet the professional business-baiters. So long as those gentlemen have their own interests to serve, so long as political excitement makes it easy to whip up public demand for a scapegoat to atone for disappointing progress with the defense program—just so long will the business-baiters find a receptive audience for their criticisms.

All of which suggests that business men must carry at this time a double responsibility, in addition to their

obvious obligation to do the very best job they know how on their individual parts of the defense program.

The first of these added responsibilities is, of course, to avoid any possible basis for the charge that industry is exploiting the defense program in behalf of excessive profit, unfair treatment of labor or any other unworthy self-interest. The second is to see that the man in the street knows and understands all that I have tried to set down in the foregoing.

For the man in the street is deeply involved in all this. He is "in the street" only to the political orators. To the rest of us, he is the man in the factory, the man on the truck, and the man behind the orders that industry fills. In short, he makes up this living American industry on whom the politician's charges spatter. As an employee he has a stake in the solvency, the security, and the reputation of the very plants at which criticism may be directed. Knowing the facts, he can answer the critics so far as his own plant is concerned and can see how the same kinds of facts apply to all industry. If he is a customer, suffering inconvenience as a result of the plant's service to national defense, a knowledge of the facts behind the plant's problems will help to make him a defender rather than a critic of responsible business management. If he is a neighbor in the community, the facts will equip him to be an interpreter of industry's problems to the people of the home town.

* * *

In this national defense effort, business enters into a new partnership with government, but, more importantly, into a deeper partnership with the American people. It is more than ever essential that it take all of the American people into its confidence, beginning with the people in its plants and going out through the ranks of its customers and its community neighbors to show them that they have a common interest in seeing that the task of national defense is undertaken in the American way.

As we all know, there are in this country some people who would like nothing better than to see American industry fail in this supreme test of service to the nation. They will watch with jealous eyes every move of every company that is engaged on a defense job. They will disparage its achievements, exaggerate its shortcomings, and distort its motives. For they would like to make over American industry to their own pattern, and they'll never have a better chance to get started with it than has been opened up by the national emergency. Or so it looks to them.

So, great as are the business hazards of the defense program for the individual business man, even greater hazards are involved for American industry as a whole. But, knowing the temper of American industrial leadership as I do, I am confident that it will handle its defense assignment with credit to itself and with great advantage to the nation that it serves—whether in war or in peace.

To help in that supreme test is the opportunity and the privilege of the McGraw-Hill organization.



President, McGraw-Hill Publishing Company, Inc.

This message is appearing in all McGraw-Hill industrial and business publications, reaching over a million readers.

**PEOPLE and their
PURCHASING POWER**

This Vital
LAST QUARTER

By **W. MacDONALD**

FORTY-FIVE PER CENT or more of 1940's retail radio business will be closed in the vital last quarter.

This estimate is probably conservative because it was exceeded in 1938 and nearly equalled in 1939. And in neither of these years did we have presidential campaign broadcasting. Nor had production for defense definitely indicated early stimulation of national income.

If ever the advisability of an aggressive Fall Campaign was indicated *this is the year.*

Purchasing Power Up

Consumer purchasing power is up and there are figures in the panel on this page to prove it.

Let's look at the facts:

In 1929 total income of all Americans in the form of wages, salaries, interest, dividends, manufacturing profits, mining and service operations was \$80,611,000,000. In 1932 it declined to \$49,289,000,000. In 1937 it rose to \$70,262,000,000. And in 1940 national income payments will reach \$70,024,000,000 if they merely continue at the pace maintained to date.

National income payments in 1940 will still be only 86.8 per cent of what they were in 1929. But in computing purchasing power, the really significant figure (particularly when attempting to estimate so-called "semi-luxury" purchase-potential) cost-of-living must be taken into consideration.

Using the index figure of 100 for 1929 as a basis of comparison, cost-of-living was 80.2 in 1932. It was 84.7 in 1937. And it is 83.4 as we write in 1940.

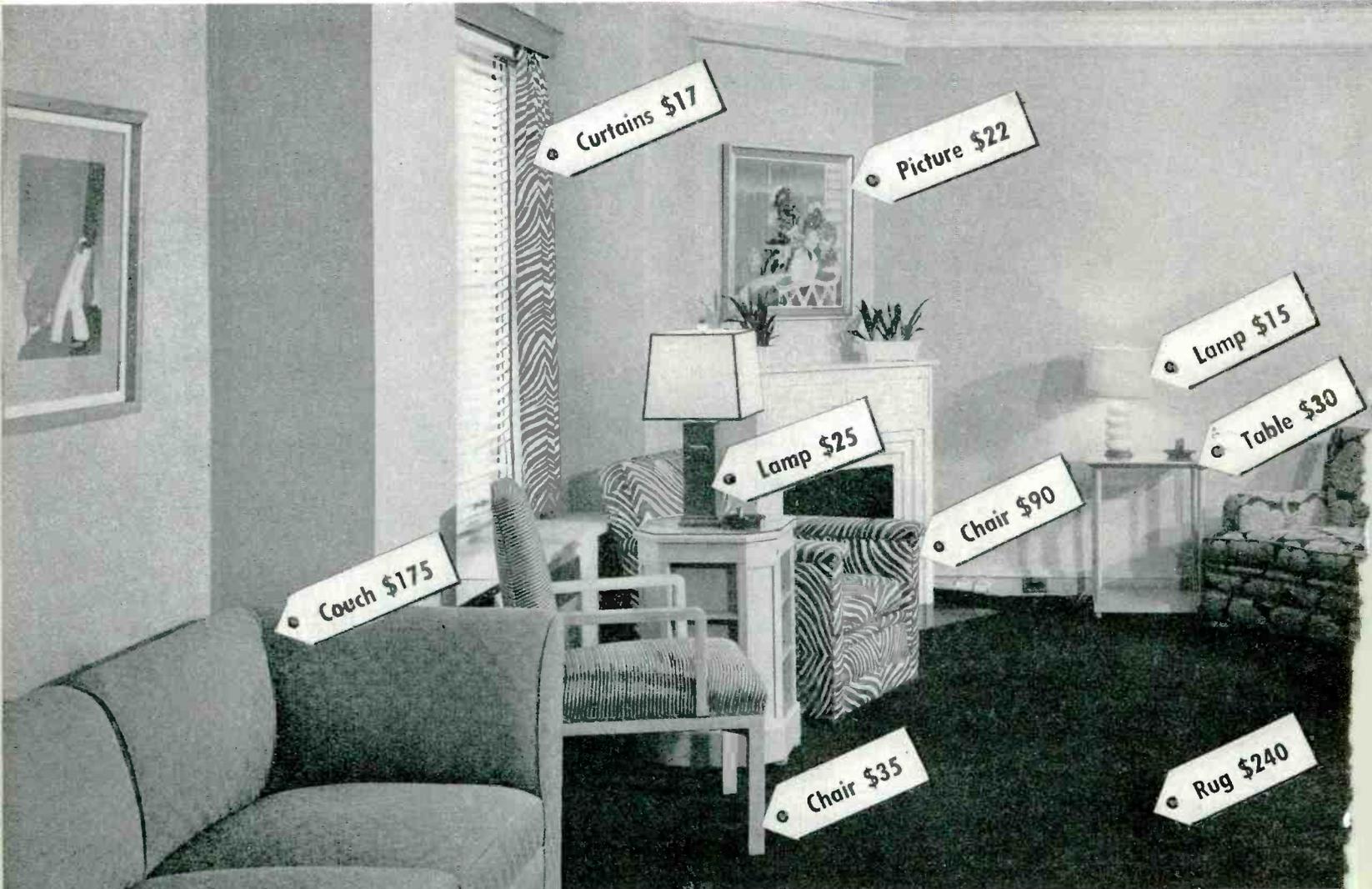
Paychecks, in other words, have regained much lost ground while the

1929 "Climax of the 20's"	1932 "Depression Low"	1937 "Recovery High"	1940
NATIONAL INCOME			
100%	61.1%	87.1%	86.8%
COST OF LIVING			
100%	80.2%	84.7%	83.4%
PURCHASING POWER			
100%	76.2%	102.9%	104.2%

This is the Best Year-End of the Economic Year to Buy on Radio Merchandise

1940 PURCHASING POWER is Actually 4.2% Greater Than 1929 Because NATIONAL INCOME Has Substantially Recovered While COST OF LIVING Has Stayed Down

What's **WRONG** with this



A Study of AVERAGE SALE Level vs. GROSS PROFIT Rate*

by Robert Lee Coshland
with Sirota, Kraus & Gleason, C.P.A.

SALES DOLLAR
\$30 Average Sale



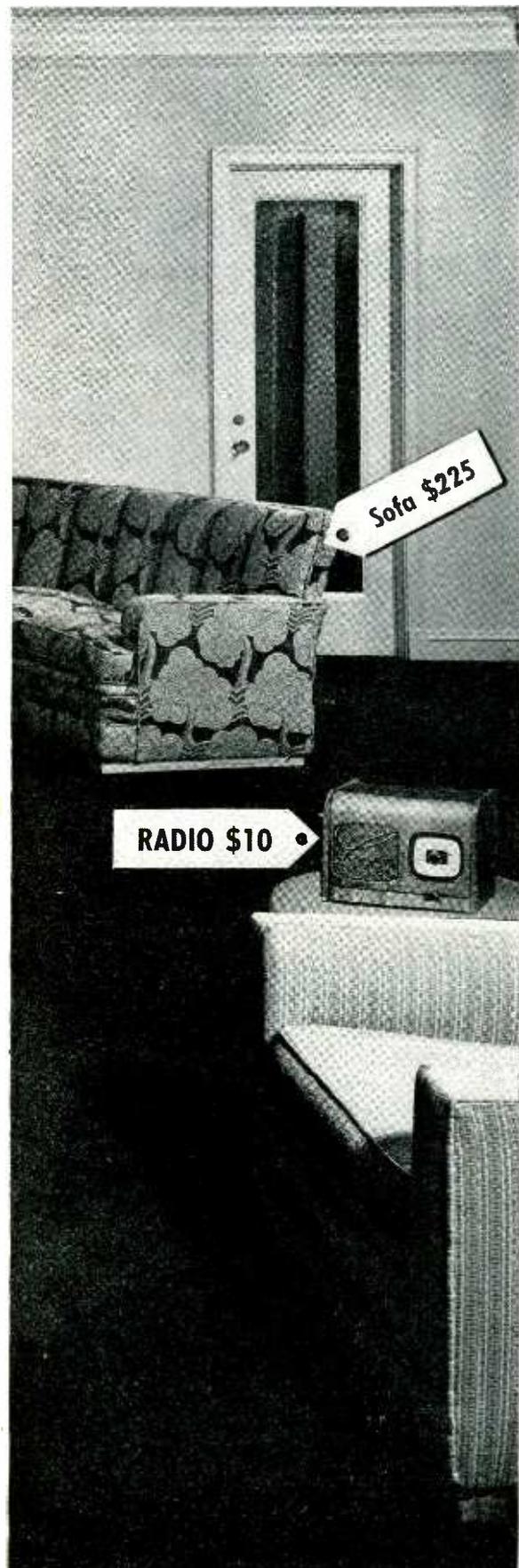
SALES DOLLAR
\$55 Average Sale



* Based on analysis of radio department figures supplied by a representative group of New York retailers.

EDITORS NOTE: Net profit obviously hinges upon more than just gross profit rate even the higher dollar "take" per sale here emphasized. Importance of unit volume obtainable by selling inexpensive sets, to people who actually cannot afford to buy better for auxiliary use, will be discussed in a coming instalment of Mr. Coshland's *Management* article series.

Picture?



(Continued from page 17)

outgo for necessities has stayed down since its early nosedive. Less money today actually buys more than it could yesterday. In fact if national income figures are "deflated" by cost-of-living you get something like this: \$80,611,000,000 in 1929. \$61,458,000,000 in 1932. \$82,954,000,000 in 1937. And \$83,962,000,000 in 1940.

A simpler way to say the same thing is to say that if purchasing power is considered 100 in 1929 it was 76.2 in 1932, 102.9 in 1937 and is 104.2 in 1940. *Four-and-two-tenths more purchasing power this year than in 1929.*

Here is a market worth working on.
The money is there.

Now, What About Profits

Retailers can approach the Fall season with a fairly high degree of confidence insofar as unit sales are concerned.

But what about profits?

These depend upon the dollars the trade succeeds in getting back from the consumer for the merchandise it sells. Upon the margin in that merchandise. Upon the cost of operation. And to a large degree upon the trade's ability to sensibly "sell up", simultaneously expand dollar income, without materially upping overhead cost per sale.

Slogan suggested for serious consideration by salesmen is: *Combinations if you can. Consoles and Compacts if you can't.* Selling from the top down rather than from the bottom up. Cheap sets only to people who actually cannot afford better or for auxiliary use. To people with money only where it is absolutely certain that it's these or nothing.

The sell-up path to profit is never easy but it should be easier this season because there is at long last practical evidence that manufacturers are now concentrating more national promotional effort upon this job.

This pressure from the top will go a long way.
But it won't do it all.

Specialty Methods Again

Sale of upper-bracket merchandise will bog down before it gets well started again unless dealers recognize the significance of the market trends already indicated and resume certain neglected specialty selling methods.

The smaller sets can frequently be sold like so many pounds of nails but this is rarely true of the larger.

Promotion will have to be geared once more to this job. *Traffic* of the right kind for the store must come in for its full share of Fall Campaign attention. *Selling* should be re-examined with the possibility in mind that increased outside effort may now be made to pay. *Demonstration* within the store might with profit be supplemented by more out in homes. *Display* could perhaps do a more effective "sell up" job. And *Service* could conceivably be harnessed still closer to sales.

These *italicized* words constitute a pretty fair outline of points all dealers should check in preparation for the big push. They are, in fact, the actual headlines of feature articles to be found within this special issue of *Radio Retailing*, planned primarily to aid readers in this direction.

Similarly, this same issue also contains every scrap of printed help we could devise which might conceivably help dealers promote upper-bracket merchandise. In many instances this promotional material is presented in such a manner that it may be directly used to influence the consumer.

This, we repeat, is the year for an especially aggressive Fall Campaign.

And we're practicing, you see, what we preach, in this Fall Campaign Number.

You Are Selling MUSIC

FUNNY THING about the radio business. It has almost lost sight of what it really must sell.

Other businesses have periodically suffered sieges of sales-blindness too. But rarely so protracted.

AUTOMOBILE BUSINESS, for instance.

Pin your pants pockets and walk into



"... first sell *Jays of the Open Road*."

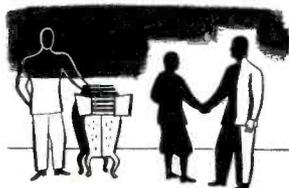
the nearest car showroom. Step right up to the newest model and ask how many cylinders it has.

The floorman will tell you. In monosyllables. If you insist. And then defer detailed discussion by taking you out for a ride.

He's selling the *Jays of the Open Road*. In any new car. Then specifically in his new car.

This broad selling job by the entire automotive industry is one of the things that has kept it so continuously prosperous.

MUSIC BUSINESS of the old, pre-radio era built piano and band-instru-



"... even subsidized music teachers."

ment volume on a similar principle. By means of some broadly constructive schemes of its own.

Schools were conducted for children. Teachers and pupils were brought together in retail stores. Teachers were

even subsidized. Concerts were everywhere arranged and sponsored. Propaganda of every description rolled off printing presses without so much as a mention of relatively unimportant instrument differences.

The music business first sold *Appreciation of Music*. It knew that with this story well-planted and continuously nursed purchase of some article of merchandise was certain to follow. It reserved technical trivia until the prospect was nine-tenths sold.

RADIO BUSINESS selling, on the other hand, has steadily degenerated.

The industry as a whole now struggles to sell a specific make first and the extra pleasure provided by any modern machine second.

The broad job of stimulating replacement urge generally is left to George and the broadcast stations. Which is all very cheap and cosy if the appeal of new models can be relied upon never to run down. Like perpetual motion.



"... more than a mess of wood and wires."

Now we're as hard-boiled about the market as the next man but it seems to us that if straight gadget-selling continues to the virtual exclusion of sound long-range promotion momentum will soon decline.

And this seems to be the psychological time to start making sure that it does not. For there is a definite manufacturing trend toward higher quality radios. Greater interest at the factories in selling up. And every indication rising costs will prevent further use of the dollar sign as the sales spearhead.

When it comes right down to brass-tacks we have something much more important to sell than a mere mechanical mess of wood and wires.

We must sell radio's lavish entertainment fare. And *Musical Reproduction*.

THE FALL of 1940 presents a new and intriguing problem in advertising.

National income is increasing. At the same time manufacturers are providing deluxe merchandise which is lower in price than equipment heretofore sold largely to upper-bracket buyers and yet higher than the sort of sets lower-bracket buyers normally consume.

The important thing to remember in preparing promotion of any sort is that the small wage-earner can now afford the luxury of semi-deluxe instruments.

Before presenting your sales story to this group as well as to that comprising people in higher income brackets consider the many improvements and additional features in this year's lines.

See how easy it is for all families to possess these new products. You ought to be enthusiastic. And enthusiasm this season is going to be the real push behind effective promotion to a really receptive audience.

Direct Mail

If you've kept an accurate, up-to-date record of your radio-phonograph and record-player attachment customers, you have an excellent mailing list for phonograph record customers. At least once a month, send your own or record manufacturers' circulars to this list. Regular mailings are essential to prevent customers from losing interest in records and insure valuable repeat contacts.

The "personal" letter method of inducing a customer to visit your store will get even better results if you enclose a circular listing the new models of the merchandise makes customers own at present. No doubt practically every set is good, but haven't you noticed that

Save Your Breath About Gadgets Until You Are Sure the Service Is Sold

PROMOTION . . .

Building Fall Business Via
Phone, Publications and Mail

By
ROBERT CORENTHAL

Adv. Mgr., Terminal Radio Corp.

people seem to prefer a newer model of what they already own—like you and your car?

Here's an inexpensive stunt for this fall to replace the time-worn station log card. Have your printer make up a hardy little card of local college and high school football schedules, and, of course, include your own advertising message. In larger towns and cities, diagrams of stadium seats make these cards last longer in the hands of football fans.

In regular mailing pieces which you are probably contemplating right now, try to reflect the quality of the merchandise offered in illustrations and copy, and let the prices speak for themselves. It might also be a good idea, after you've mailed your fall circulars, to start building your Christmas mailing list. It is the writer's opinion that the volume of business done by radio retailers this fall and winter will justify an elaborate promotion for greater and highly profitable Christmas season activity. Maybe Christmas is far away, but don't say we didn't give you twelve weeks' notice!

Publication

In newspapers, consistency is of prime importance. It is advisable for the independent retailer to run many small ads rather than a few big ones. If you have a "token" to offer, like the football schedule already suggested, tell your newspaper readers to call, or write for one, and don't forget to add the names and addresses obtained to your mailing list.

We've explained other newspaper advertising angles in earlier issues (see *Radio Retailing* for July, 1940) and there's not much more to tell radio retailers about this media.

Send occasional briefs to the local radio editors about anything in new radios interesting enough to merit



THE BIG PUSH starts here, at your desk

reader interest. The mere mention of your store name and address in any of these news items will be reward enough for your effort in writing such publicity stories.

Try to anticipate social and political functions at your local churches, auditoriums and meeting rooms. Your advertisement in the local church weekly may be a deciding factor when you bid for a sound system sale or rental.

Although radio and record ads in the concert programs of Carnegie Hall, Town Hall (New York City), Berkshire Music Festival, have made many regular customers for retail radio establishments, it is difficult to predict the success of advertising to music-lovers attending concerts and recitals in your own locality.

The general procedure is to offer fine radio-phonograph combinations and recordings of selections heard during that performance, as well as

other works of the composers honored that evening. In New York, Boston, Minneapolis, Philadelphia and other large cities you could also emphasize recordings of local symphony orchestras and guest artists.

If you carry an attractive selection of phono-combinations and sufficient classical recordings, it might pay you to investigate the results possible from promotions to a concentrated audience of people who prefer good music to movies.

Telephone

Why not follow-up your "personal" sales letter with a phone call?

The proven method is to assign a stack of file cards to each salesman, with instructions to keep after these prospects and to notate on the cards sufficient remarks and comments to enable them to renew their contacts later, should immediate results not be obtained.

"Capsuled" DANCE BAND Data

Vi—Victor
Bb—Bluebird

Co—Columbia
Ok—Okeh

Br—Brunswick
De—Decca

Ro—Royale
Va—Varsity

BAND	THEME SONG	LEADER PLAYS	VOCALISTS	NO. IN BAND	RECORDS
ALEXANDER, VAN	Still Waters	Cor	"Butch" Stone Phyllis Kenny, Bill Shallen	13	Bb, Va
ARMSTRONG, LOUIS	On the Sunny Side of the Street	Trum	Sonny Woods, L. Armstrong	13	Bb, Ok, De
AYRES, MITCHELL	You Go to My Head	Violin	Mary Ann Mercer, Tommy Taylor	11	Bb
BARNET, CHARLIE	Make Believe Ballroom	Sax	Harriet Clark, Larry Taylor	16	Bb
BARRON, BLUE	Sometimes I'm Happy	.....	Russ Carlyle, Alan Homes, Charlie Fisher, 3 Blue Notes	12	Bb
BASIE, COUNT	One O'Clock Jump	Piano	James Rushing, Helen Humes	15	Co, Ok, De
BERIGAN, BUNNY	I Can't Get Started	Trum	.....	12	Vi, Ok
BERNIE, BEN	Lonesome Old Town	Violin	Donald Saxon	12	Ok, De
BRADLEY, WILL	Strange Cargo	Trom	Ray McKinley, Jimmy Valentine	14	Co, Ok
BREESE, LOU	Breezing Along With the Breeze	Guitar	Skip Morr, Don Huston	17	Va
BROWN, LES	Dance of the Blue Devils	Trum	Doris Day, Herb Muse	14	Bb, Co, De
BUTTERFIELD, ERSKINE	.....	Piano	.....	7	De
BYRNE, BOBBY	.....	Trom	Jimmy Palmer, Dorothy Claire	14	De
CALLOWAY, CAB	Jumping Jive	.....	Avis Andrews, Cab Calloway	13	Vi, Bb, Ok, Br
CHESTER, BOB	Sunburst	Sax	Dolores O'Neill, Al Stuart	14	Bb
CLINTON, LARRY	Dipsy Doodle	.....	Helen Southern, Terry Allen, Jack Palmer	15	Vi, Bb
COURTNEY, DEL	(Original)	Piano	Joe Martin, Sherman Hayes	11	Ok
CROSBY, BOB	Summertime	.....	Bonnie King, Bob Crosby, Bob-o-links	12	De
CUGAT, XAVIER	My Shawl	.....	Miguelito Valdes	16	Vi
DONAHUE, AL	Low Down Rhythm in a Top Hat	Violin	Dec Keating	13	Ok, De
DORSEY, JIMMY	Contrasts	Sax	Bob Eberly, Helen O'Connell	17	De
DORSEY, TOMMY	Getting Sentimental Over You	Trom	Connie Haines, Frank Sinatra The Pied Pipers	14	Vi, Bb
DUCHIN, EDDY	Twilight Dream	Piano	Tony Leonard, June Robbins, Lew Sherwood, Johnny Drake	13	Vi, Co, Br
ELLINGTON, DUKE	East St. Louis	Piano	Ivie Anderson	15	Vi, Bb, Co, Ok, Br, De
FIELDS, SHEP	Toodle-oo	.....	Hal Derwin, Dorothy Allen	12	Bb
FISHER, FREDDIE	Rippling Rhythm	.....	.....	.....	De
FITZGERALD, ELLA	A Tisket-A Tasket	Sax	Ella Fitzgerald	14	De
GARBER, JAN	My Dear	.....	.....	.....	Vi, Ok, Br, De, Va
GOODMAN, BENNY	Let's Dance	Clar	Helen Forrest	13	Vi, Bb, Co, Br
GORDON, GRAY	One Minute To One	.....	Meredith Blake, Cliff Grass, Art Perry	13	Vi, Bb
GRAY, GLEN	Smoke Rings	Sax	Pee Wee Hunt, Kenny Sargent	15	Vi, Ok, De
GREEN, JOHNNY	On the Trail	Piano	Jack Smith, Carol Horton, Beverly, Louanne	17	Ro
HALL, GEORGE	Love Letters In the Sand	.....	Dollie Dawn	.....	Bb, Ok
HAWKINS, COLEMAN	.....	Sax	June Harris, Warren Evans	15	Vi, Bb, Ok, De
HAWKINS, ERSKINE	Tuxedo Junction	Trum	Jimmy Michelle, Dolores Brown	15	Bb
HAYTON, LENNIE	.....	Piano	.....	14	Ok, De, Va

(Continued on Page 72)

Record Sales Increase When You Know More Than the Customer

ONE LOOK is worth a thousand words. This is particularly true of ideas to build store-traffic, dealer problem number one at this season.

Following are suggested traffic-building ideas depending more upon visual than upon oral appeal. All of them have been successfully used by established retailers, in or close to the radio business.

Baseball "Hook"

World's Series days are here again.

Rebroadcast the daily playoffs through outside speakers and install an inexpensive scoreboard upon which hits, runs and errors may be recorded.

Use tie-in signs in the window and outside (here's the real traffic-builder) inviting fans to come into the store for free score-pads or schedule-cards.

If you want further variation of the idea invite men to register their opinions with you concerning the probable winner. Print entry blanks for this purpose to make it look official.

Closest "prophet" might win title of "Champion World's Series Oracle." Might have his picture in the papers.

You can think up your own inducements to "vote." And when baseball's over try it on football.

Campaign Paper

Oldest, yet still one of the most effective Fall campaign boosters, is publication of your own special "newspaper."

Sounds pretty ambitious and expensive? You can fit the idea to your own requirements by scaling down the suggestions given in the following paragraphs, written for the "well-heeled" group:

Try an eight-page "private paper" of the tabloid size and style. Include current radio programs, photos of local radio celebrities or network stars. Radio stations will furnish such shots free of charge if you explain what you want them for.

Incorporate a "For and By the Reader" column in which people in

TRAFFIC . . .

Tricks to Help You
Build It for Your Store

By

EUGENE A. CONKLIN

your territory air their pet radio peeves or spot their radio praise. Shoot invitations to write such "copy" to your entire prospect-list through the mails and watch the leads such comment automatically produces. Ask contributors to bring their stuff to the store for "discussion before publication." (This is the "hook" that does your traffic-building job.)

You might wish to distribute the finished sheet only at the store, to those actually coming in for it. Cost of publication might even be borne in part by accepting advertising from non-competitive businessmen in your neighborhood. It is, in fact, frequently done on such a cooperative basis with greatest success. Pictures of your radios are, of course, featured.

Even a single-sheet paper handled on this basis will help.

Like Premiums?

The newspaper idea may be "too rich for your blood."

How about inexpensive Fall campaign premiums? Some dealers like the idea and some don't but, at least, it has the virtue of being simple.

In selecting premiums, if you do decide to use them, be sure and select things that have definite value rather than merely novelty appeal. Such things as pen and pencil combinations, calendars for the desk, table sets and even model airplanes for the kiddies work well, I have noted.

For servicemen, radio logs are especially recommended. Radio war-maps, on the other hand, are good traffic-builders at this time for any type of operation.

Recordings Sure-Fire

Many dealers are already using personal recordings very successfully as a means of building store-traffic.

Some offer one made by the



prospect with the purchase of merchandise of any kind over a certain dollar total. Others prefer to use them solely to promote the sale of the recording instruments themselves. Still others sell personal recordings virtually at cost just for the good they do the operation when properly promoted by swelling store-traffic.

One thing to keep in mind if the last-mentioned promotional method is considered is that many dealers using personal recordings primarily to swell traffic still advertise them sufficiently above cost to make this service profitable in its own right. And report that they still "pull."

Schoolday Angle

Schooldays are here again.

Even if your operation is not big enough to swing the idea alone

how about staging a cooperative "kiddie show" with other local merchants?

Contestants on the program should be hand-picked after elimination contests, by an impartial school committee consisting of dramatic, music and dance instructors. You thus duck many personal headaches when making awards.

Parents flock to see their own and neighbor's kids at such affairs, particularly in the smaller towns, and you can arrange radio demonstrations during intermission.

Program can consist of songs, dances, imitations. Applies to grade schools, Junior High and, with a little more extensive planning, even to High Schools.

Sells radios, appliances or what have you.

Later, perhaps, sound or radio to schools.

Tripling Home ENTERTAINMENT

RADIO

Brings the World
Into Your Home



PHONOGRAPH

Plays What You
Want When You
Want It



RECORDING

...The Nation's
NEWEST Hobby

Permits Personal
Snapshots In
Sound



Now You Can Buy All Three in COMBINATION

SOME DEALERS carrying radio and other household specialties are getting along without outside soliciting (not that they should). But you and I have a small store, stock a few radios, refrigerators, washers. We have no collectors, no extensive customer list of financed merchandise, not even a good location. And we haven't much money to spend on advertising. *Outside selling is our only means of staying in business.*

We have a girl in the store to answer the phone, wait on the rare walk-in, and we're going to do our own selling—outside. We're pretty good salesmen and we know that the two of us, at a dealer's discount, will be able to pay our small overhead and still come out better than if we were working as salesmen for somebody else.

The two of us alone should do a pretty good fall campaign job—but we're not going to be satisfied with that, even though we could live on it. We want volume, other men working for us. What shall we do?

Finding Men

Well, we know we can't get *finished* salesmen—men who would disturb us in no way except by handing us signed contracts with down payments. I'm not going to explain why we can't get them, again, and I'm not going to repeat the reasons why they'd be working in the wrong way even if we could get them. We just know by now we can't get them, and, if you think we can, put an ad in the paper and try.

However, we're not going to let that stop us from hiring men. We know that there are a lot of men out of work, and we can get and hold as many of them as we want—if we give them the proper help and cooperation.

We may have to nurse them like babies for a while, but—so what? (a) Inasmuch as it's the only thing we *can* do, we'd better do it. (b) And so long as *we* can *sell*, and

SELLING . . . Here's One Way to Do an Outside Job

therefore shouldn't spend our valuable time canvassing anyway, why shouldn't we get some new men (who can't sell but can canvass) to dig up the prospects for us, so that we can spend *all* our time closing? (c) It's getting chilly now, and we'll be pushing radios. And as important as it is to separate canvassing from closing, in selling any appliance, it is more important with radio than with any other item.

So we put an ad in the paper:

MEN—Do you know any specialty salesmen who are not earning a living? We do. We can even tell you why they are not. But there are also specialty salesmen who *are* earning good money—and we'll tell you how you can be one of them, if you wish. Don't let anybody kid you that specialty selling is easy. It's not, and that's why we don't ask you to do it. But if you want to learn how, and receive a salary and commission *while* you're learning, come in to see us Monday morning at nine o'clock. (Address.)

Picking Men

We are deluged with applicants, but we talk to each one by himself. And the most important thing we're

By

CASWELL ODEN

looking for is a pleasing personality, as good an appearance as possible. Forgetting all other considerations, the thing to bear in mind is this: the more he appeals to us, just as a man, the more he will appeal to a woman at the door.

We tell him exactly what our proposition is, and we do it *without* a lot of inspirational chatter. We explain that he must canvass five hours a day, five days a week, and for that we'll pay him \$10 a week, at \$2 a day, and 5%—with the understanding that he can switch over to a straight 10% whenever he wishes.

"Ten dollars a week isn't much," we admit. "And we don't expect you to live on that. But it's a lot to get *before* you earn it. Do you

know where *else* you can get it?" He shakes his head. "You can go elsewhere and get a hundred dollars a week—if you earn it first. We'll give you the same thing. But we're giving you far more. We're paying your expenses for you, closing your business for you, and paying you a commission on it. All we ask you to do is work. Want the job?"

He does.

Directing Men

We give the men we hire what literature they need, and tell them a little something about the merchandise—but only enough for their *approach*. (Not so much about the quality of the merchandise—more about what to say at the door. BOX—pays for itself. WASHER—ditto. RADIO—story to get it in the house). And this we supplement the next morning by actual demonstration, canvassing with the man, letting him watch us, then watching him. One day of this is enough, however, for he'll learn very quickly once he's working.

We may take on six men (three apiece), or only two at first, canvassing some ourselves, and waiting until the first two are broken in well before taking on more. The slower way, of course, is the safer. The one point to bear in mind is this: any man who canvasses 25 hours is *certain* to be worth his salary—but *only* if we supervise him carefully and give his prospects the proper attention.

Assuming we take on six men, we face an outlay of \$60 a week. For that we want \$1200 volume. And that doesn't mean \$400 from one man and \$100 from another—as an average. If a man can't average at least \$200, something is wrong.

If any man doesn't earn his salary, that's *our* fault, not his. Because we're supposed to *see to it* that he does, replace him if he doesn't. In fact, we want men who will be asking for a straight 10% before too long.

That's the way to make most effective use of manpower

One Type to CANVASS

Another to CLOSE

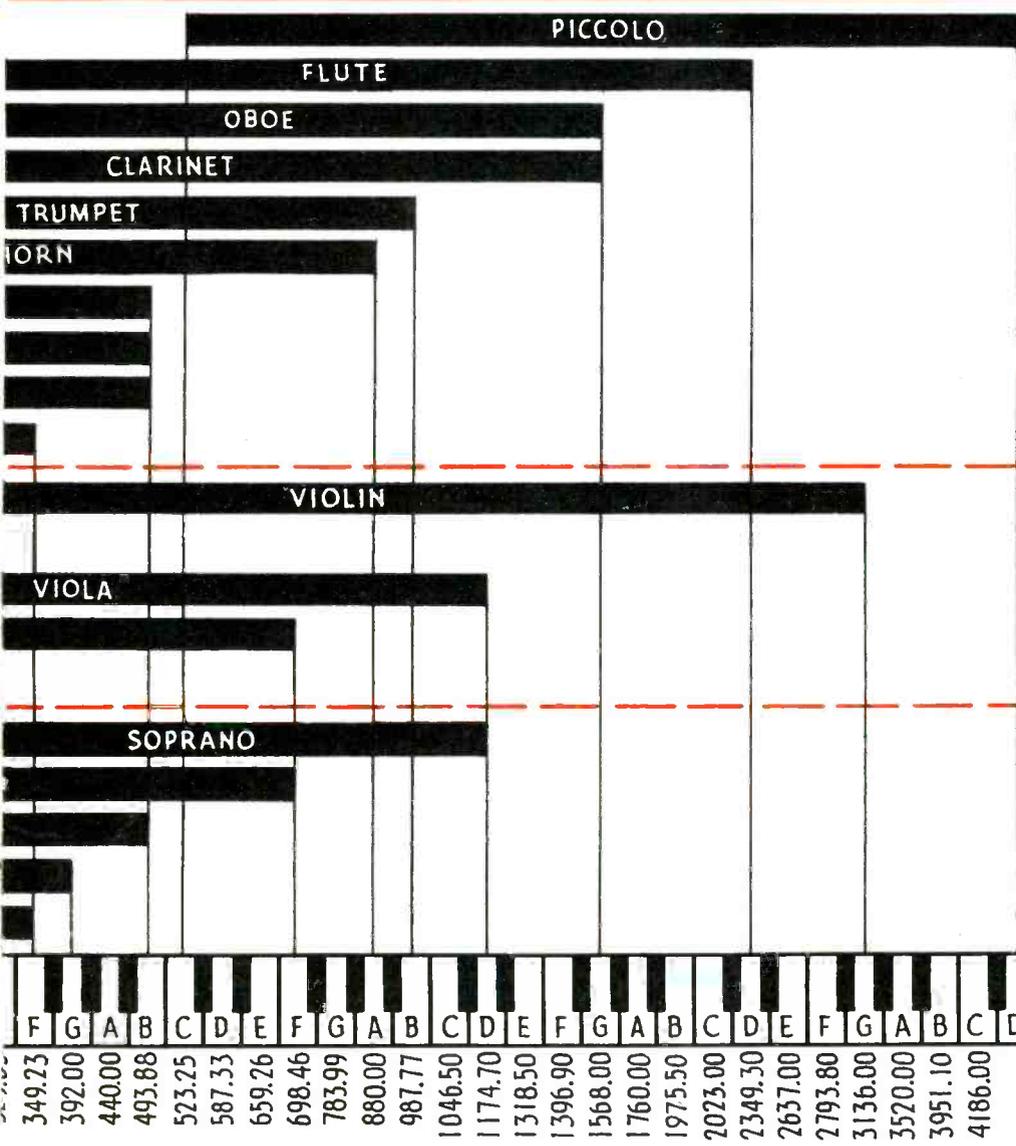




Enough for **SPEECH**

May Satisfy for **DANCING**

RANGE You Can Buy for the **BEST THINGS IN MUSIC**



Upper **OVERTONES**
of Instruments
Necessary for
Complete **REALISM**

RADIO and *Television*
RETAILING

Limit of hearing for older persons
Squeaks, song of insects

Cycles per Second 10,000 16,000

LIMITS OF HUMAN HEARING

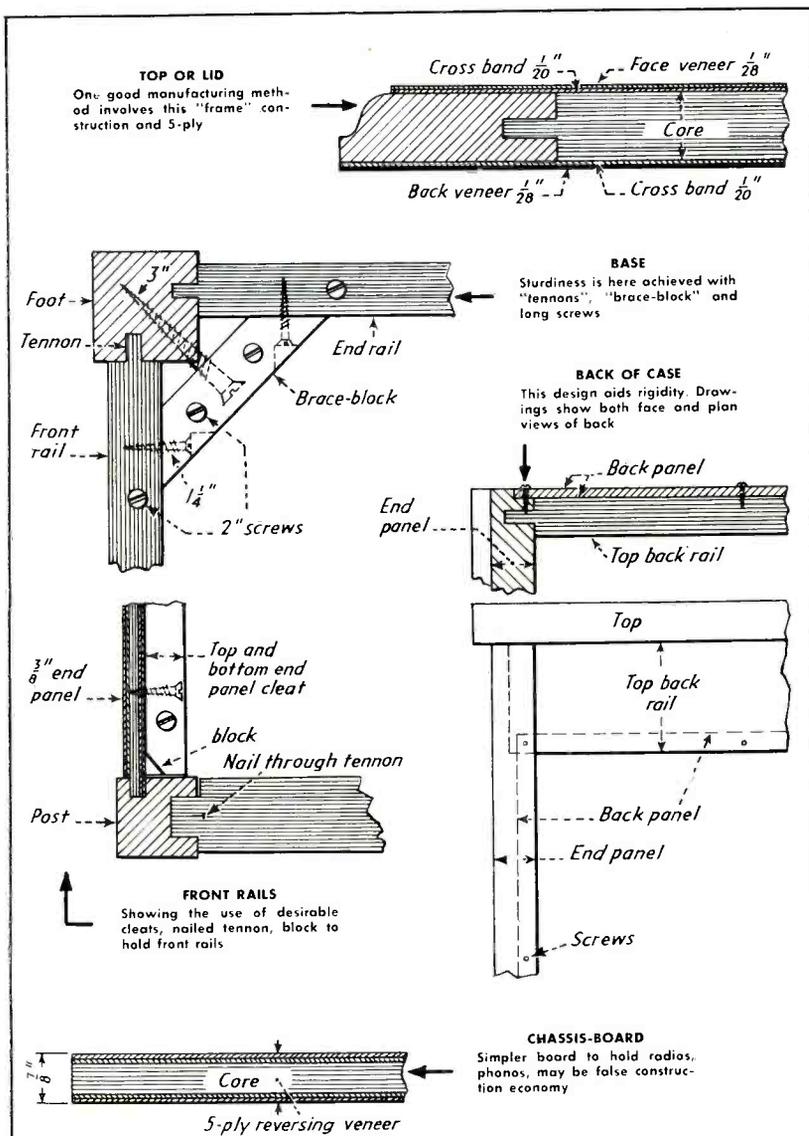
How to Tell Quality FURNITURE

CHEST-OF-DRAWERS or radio cabinet, furniture is still furniture.

There is more to quality than just good exterior design and fine finish, although both are hallmarks. *Construction* is important if the piece is to withstand handling and vibration, changes in temperature and humidity.

How does one readily recognize quality construction? We asked experienced furniture salesmen this question and received more hints than we bargained for, more than we can in this instance print.

There were, however, five points about furniture that seemed particularly applicable to radio cabinets and these can be illustrated.



There Is More to Good Construction Than Meets the Casual Eye

THE TECHNIQUE of demonstrating in the store, or in the home, is an important factor in the closing of a sale. This is particularly true of models in the higher-price brackets.

It is not only important to know *how* to demonstrate but *when* and *where*. Otherwise costs can run wild. Properly employed, demonstration is perhaps the most powerful single weapon a salesman has when attempting to close and from dealers long aware of this fact we glean the following suggestions.

For Ladies Only

One dealer not far from *Radio Retailing's* editorial offices says women are becoming increasingly numerous as radio and especially combination purchasers, has developed a special technique for demonstrating to them. Says he: "Concentrate on quality reception, fine cabinetry and the way the set will fit in with other furnishings. Always show your most expensive set first (even though you don't expect to sell it) and avoid any discussion of technicalities."

The radio department manager of a nearby chain, on the other hand, has developed a definite routine of demonstration "steps," religiously follows it regardless of whether the prospect is a man or a woman. In order, these steps are:

- Quality
- Performance
- Features
- Value
- Program Service

"Home Display"

Queried on home demonstration, the manager of the Hunt Music Shop, White Plains, N. Y., informed us that outside "previews" are today made only on sets up around the \$100 dollar class. Interested in selling radios even at much lower prices if necessary, he nevertheless feels that this is about where store demonstration should stop and home demonstration begin. Experience has proven that prospects for merchandise at this end of the scale are most responsive to home treatment. Percentage of sales to demos is not only higher but there

DEMONSTRATION . . . Fine Points for Use in Store or Home

By W. CARL DORF

is more margin with which to pay the cost.

The owner of French Radio Co., Stamford, Connecticut, *personally* supervises all outside demonstrations. Says 75 per cent of his business results from "home display" (*that's a novel thought!*) of merchandise. Culls leads from service calls, advertising and is an ardent checker-upper on the "personal" columns announcing engagements and marriage licenses. The latter are sure bets as radio buyers. Makes no calls without a sales opener.

The "Loan" Gag

Another Connecticut retailer finds outside demonstration a necessary part of his business. Says success with this type of merchandising requires ability to "qualify" prospects for it. This comes under the head of experience, is sort of "born to," not "bred." Wherever possible leaves a new set in the home when pulling sets for service, finds this an excellent sales clincher, especially for that extra set so often needed by the client.

When the P. & M. Radio Co., Hollis, Long Island, receives permission to deliver a set on trial it tries to arrange showing for an evening when the important members of the family are all at home. Repeat visits increase cost of outside demonstration and it is ignoring of little fine points like this that put a drag on the business instead of the profit proper demonstration can produce.

The trade seems to agree that when you run up against a "sour-puss" it is best not to overstay your demonstration visit. Pull the set and control the tongue. Curiously, when the prospect throws off his grouch he frequently signs the contract for the model displayed or even a better!

Check Floating Stock

A live-wire retailer of Hempstead, Long Island, pushing radios and

appliances, said he would home-demonstrate any article in the store, but would not permit more than a 48 hour stay in the prospect's home. Thought that was plenty long enough for the customer to make a decision. Makes this a fast rule. Employs an accurate checking system on all floating stock. Important to watch this angle, otherwise considerable money can be tied up in

outside demonstrators.

On outside demonstration dealers, as a rule, thought that 75% of the sale was concluded when a trial set was placed in the home. Was comparable to the strategy adopted by the automobile salesman whose first effort is to get the prospect behind the wheel on the theory that merchandise so demonstrated will practically sell itself.

"QUALIFYING" Prospects

Check these test questions:

	YES	NO
1. Is it better than a 50-50 bet that a sale will follow home demonstration?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is it certain that the prospect's credit is good?	<input type="checkbox"/>	<input type="checkbox"/>
3. Is there a good chance that by demonstrating at home you can "sell up"?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is there someone else at home who has to be sold?	<input type="checkbox"/>	<input type="checkbox"/>
5. Is the gross profit on the model involved enough to justify two outside calls?	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to three or more is "Yes" what are you waiting for!



2 SMASH HITS

JUST LOOK AT THESE FEATURES!

Here's a value in radio phonographs that will stop 'em cold! Beautiful cabinetry . . . superlative performance . . . glorious tone . . . "Slide-A-Way" automatic record changer . . . all at a sensational price.

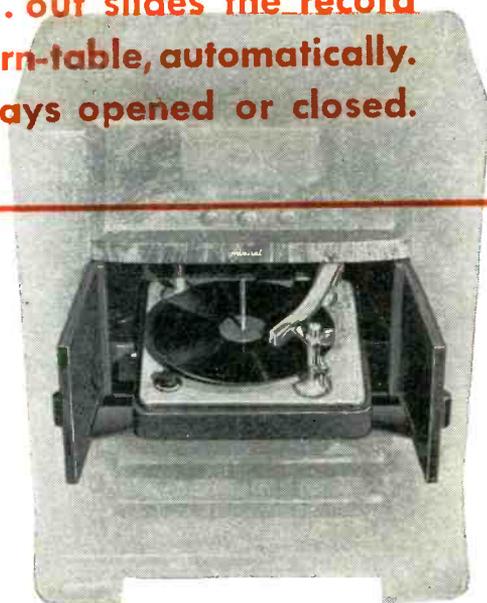
Model 62-B7 Chassis Specifications: 7 tubes, AC superhet; two complete bands, standard and foreign short wave from 5.5 MC to 18.1 MC.; directional Aeroscope; automatic tuning; R.F. stage for extreme sensitivity; large, heavy-duty P.M. dynamic speaker; bass compensation; "Scfg'o" dial. Automatic record-changer plays 12" or 10" records. Smartly styled, matched walnut cabinet.

Model 62-B7 Radio-Phonograph with Slide-A-Way Automatic Record Changer

\$99.95

Model 62-B7

Presto! Open the doors
... out slides the record
turn-table, automatically.
Plays opened or closed.



Equipped with RCA Preferred Type Tubes

by Admiral

You'll smash all sales records with this new table model combination with automatic record changer. It's an Admiral sensation!

Model 64-K5 Chassis Specifications: 5 tubes, AC superhet.; standard broadcast; Aeroscope magic antenna; heavy duty P.M. dynamic speaker; bass compensation; A.R.C. plays 12" or 10" records.

**Model 64-K5
Radio-Phonograph
with Automatic
Record Changer**

\$49⁹⁵

Model 64-K5



**Model 61-K7
Radio Phonograph
with Recorder**

\$69⁹⁵



Model 61-K7



Model 43-B4

Boost Battery Set Sales!

Here's a value that will do it . . . got 'em all topped on every count: economy of operation, tone excellence, and beauty.

Model 43-B4 Chassis Specifications: 4 tube 1.4 volt "AB" battery superhet; standard band, from 535 KC to 1730 KC.; 6" P.M. dynamic speaker; automatic volume control; iron core antenna coil.

Note: All prices slightly higher in West and South and subject to change without notice.

New Table Model Recorder

It's a honey . . . this new Admiral table model combination with recorder. Records programs from the air or from the mike. Can also be used as a P. A. system.

Model 61-K7 Chassis Specifications: 6 tube, AC superhet.; tunes standard broadcast band; Aeroscope antenna; 6" PM dynamic speaker; bass compensation; microphone.

CONTINENTAL RADIO & TELEVISION CORP.
3800 W. Cortland St., Chicago, Ill. • Export Office: 116 Broad St., New York

F-M Radio Stations

OPERATING UNDER EXPERIMENTAL LICENSE

Call	Licensee	Frequency (mc.)	Power (kw.)
W1XX	Westinghouse Elec. & Mfg. Co., Hull, Mass.	42.6	1.
W1XOJ	The Yankee Network, Inc., Paxton, Mass.	43.0	50.
W1XPW	WDRC, Inc., Meriden, Conn.	43.4	1.
W1XSN	Westinghouse Elec. & Mfg. Co., E. Springfield, Mass.	42.6	1.
W1XSO	Travelers Broadcasting S. Corp., Avon, Conn.	43.2	1.
W1XTG	Worcester Telegram Pub. Co., Inc., Holden, Mass.	43.4	1.
W2XDA	General Electric Co., Schenectady, N. Y.	43.2	.05
W2XMN	Edwin H. Armstrong, Alpine, N. J.	42.8 and 43.4	40.
W2XOR	Bamberger Broadcasting Service (WOR), Carteret, N. J.	43.4	1.
W2XOY	General Electric Co., Albany, N. Y. (New Scotland, IKW)	43.2	.15
W2XQR	John V. L. Hogan (WQXR), New York, N. Y.	43.2	1.
W2XWG	National Broadcasting Co., New York, N. Y.	42.6	1.
W3XMC	McNary & Chambers, Bethesda, Md.	42.6	.1
W3XO	Jansky & Bailey, Georgetown, Dist. of Columbia	43.2	1.
W8XAD	WHEC, Inc., Rochester, N. Y.	42.6	1.
W8XFM	The Crosley Corp., Cincinnati, Ohio	43.2	1.
W8XVB	Stromberg-Carlson Tel. M. Co., Rochester, N. Y.	43.2	1.
W8XVH	WBNS, Inc., Columbus, Ohio	43.0	.25
W9XAO	The Journal Co., Milwaukee, Wis.	42.6	1.
W9XEN	Zenith Radio Corp., Chicago, Ill.	42.8	1.
W9XYH	Head of the Lakes Broadcasting Co., Superior, Wis.	43.0	1.

COMMERCIAL APPLICATIONS PENDING

Location	Applicant	Frequency (mc.)	Coverage Sq. Miles	Population
Alexandria, La.	Alexandria Broadcasting Co.	43.3	3,025	116,119
Baltimore, Md.	The A. S. Abell Co.	44.3	15,489	3,308,983
Baton Rouge, La.	Baton Rouge Broadcasting Co.	44.1	8,100	361,382
Binghamton, N. Y.	Howitt-Wood Radio Co.	44.1	18,000	1,836,300
Boston, Mass.	The Yankee Network, Inc.	43.9	35,500	2,020,162
Chicago, Ill.	Moody Bible Inst. of Chicago	43.9	15,300	5,091,500
Chicago, Ill.	National Broadcasting Co.	43.3	12,520	5,241,300
Chicago, Ill.	WGN, Inc.	44.3	16,822	6,344,983
Chicago, Ill.	WJJD, Inc.	44.7	3,700	4,051,000
Chicago, Ill.	Zenith Radio Corp.	43.5	10,760	4,500,204
Columbus, Ohio	WBNS, Incorporated	43.1	12,400	1,104,642
Detroit, Michigan	John Lord Booth	44.1	4,400	2,514,753
Detroit, Michigan	The Evening News Assn.	43.1	25,280	5,641,981
Detroit, Michigan	James F. Hopkins	46.5	3,050	2,133,811
Detroit, Michigan	WJR, The Goodwill Station	43.7	14,144	3,636,615
Evansville, Ind.	Evansville on the Air	43.7	8,398	465,600
Hartford, Conn.	Travelers Bdcstg. Service Corp.	43.9	14,768	4,893,439
Hartford, Conn.	WDRC, Incorporated	43.1	13,944	1,337,805
Kansas City, Mo.	Commercial Radio Eqm. Co.	44.9	2,995	673,759
Lexington, Ky.	American Bdcstg. Corp. of Ky.	44.1	7,290	415,501
Los Angeles, Cal.	Don Lee Bdcstg. System	43.5	6,944	2,604,104
Los Angeles, Cal.	Standard Broadcasting Co.	45.1	1,427	1,901,124
Milwaukee, Wis.	The Journal Company	43.1	15,642	2,168,091
New York, N. Y.	Marcus Loew Booking Agency	43.5	12,949	13,950,852
New York, N. Y.	National Broadcasting Co.	43.9	16,880	15,524,420
Pittsburgh, Pa.	Walker & Downing Radio Corp.	43.5	8,400	2,100,000
Providence, R. I.	The Outlet Company	44.3	16,370	6,263,346
St. Louis, Mo.	The Pulitzer Publishing Co.	43.5	6,564	1,531,182
St. Louis, Mo.	Star-Times Publishing Co.	43.1	9,900	1,640,000
Salt Lake City, Utah	Radio Service Corp. of Utah	44.7	623	194,102
Schenectady, N. Y.	Capitol Broadcasting Co.	43.5	6,589	967,733
Schenectady, N. Y.	General Electric Co.	43.9	16,030	1,560,000
Worcester, Mass.	Worcester Telegram Pub. Co.	43.1	20,437	6,606,882

The Picture As of September 1, 1940

MOST EFFECTIVE window display theme I can think of for a radio dealer's Fall Campaign is a tie-in with the "Listen Before You Vote" slogan.

I've devised three of these: One for large operations interested primarily in set sales, another for smaller organizations just about equally interested in sales and service but relying heavily upon service contacts to produce new business and a third for service specialists.

For Set Sales

Window suggested for set sales promotion consists of two outer panels made of Beaverboard nailed on 1 by 2-inch furring strips, 1-inch side up. Elephant and donkey sketched in black lines on white background, bordered by narrow red band and wider blue one with white stars.

Center unit to be platform for radio display made of $\frac{7}{8}$ -inch boards and back by flag decoration or with red, white and blue crepe paper or satine drape on 1 by 2-inch frame. Scroll in center is showcard sign curled on ends.

If motion is desired recommend having head of elephant and donkey sway from side to side. Suggest "Gregory" electric pendulum unit. The heads are in this case painted and cut out separate from rest of panel and placed over same, being attached to pivot point of electrical unit and swung through a curved slot in panel behind heads. (Gregory Motors, 59 E. 34th St., New York City.)

For Sales and Service

Simpler display for both set and service sales consists of two panels, made of either cardboard or Beaverboard, on 1 by 2-inch furring strip frame, 1-inch side up. Painted white with narrow red stripe and outer wider blue stripe with white stars. Panels in this case are devoted to "Listen Before You Vote Copy" while center panel, also made of cardboard or Beaverboard, is braced in back to stand up, also holding two outer panels. Upon center panel sketch in black lines the radio

DISPLAY . . . Three "Listen Before You Vote" Windows

store and building with white background.

Artwork such as radio on crutches is painted on cardboard or Beaverboard and cut out. A cardboard "V" brace should be glued at the back to make these stand up. Sales-Service sign made of cardboard can be flat against building or protruding, as in sketch. Size of panels must obviously suit available space but proportionate sizes should be as illustrated.

For Service

The simplest display, for service specialists, consists of two panels made of either cardboard or Beaverboard on 1 by 2-inch furring strip frame, 1-inch side up.

The center panel is bordered by a

narrow red stripe and wider blue stripe with white stars, and devoted to copy. It is braced in back to stand up and holds two outer panels up also. Two outer panels are sketched with black lines on a white background. Lettering in red, with red and blue stripe at bottom as per sketch.

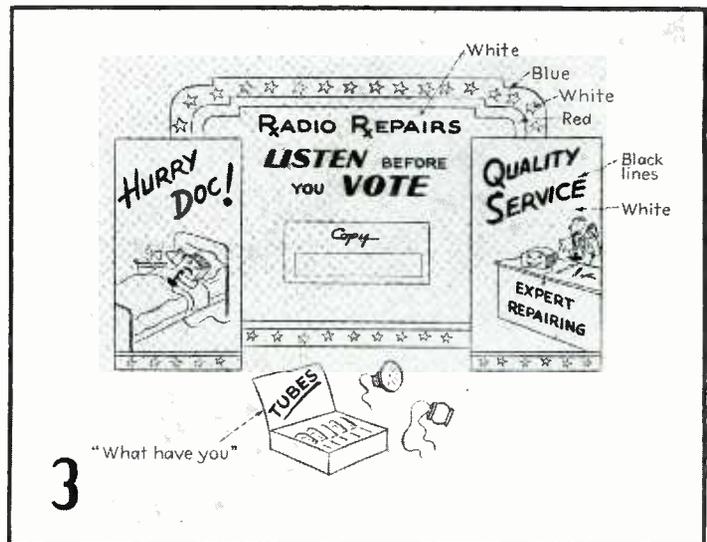
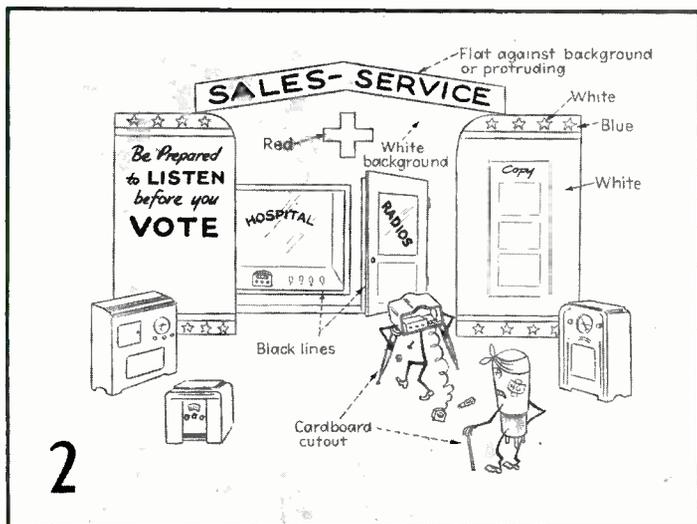
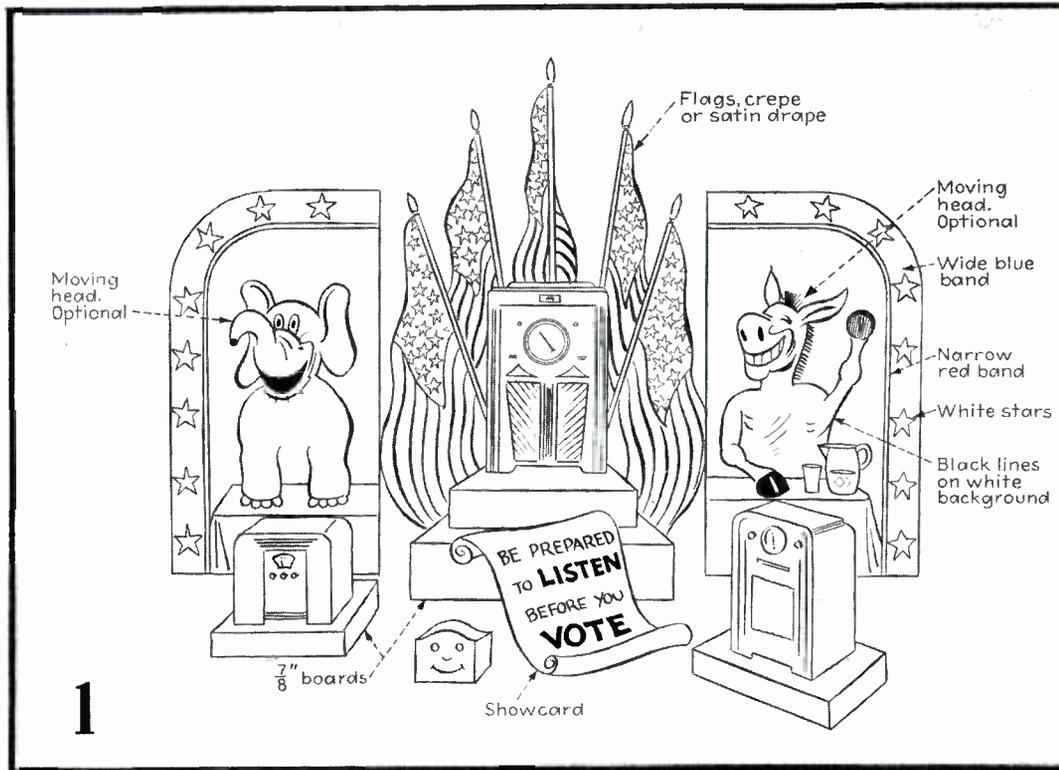
Panels can be made to fit any available space.

By
ALFRED HARVEY
Alvic Display Service

1 For SET SALES

2 For SALES and SERVICE

3 For SERVICE



PARTS

Make or Break

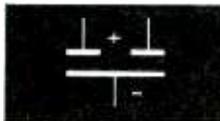
PERFORMANCE

NO CHAIN is stronger than its weakest link.

In radio the "links" are individual parts connected in the circuit. Overall performance cannot be good if even one is bad.

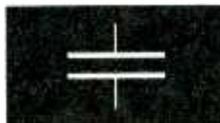
Sub-standard parts are false economy for both the consumer and the dealer.

TEST Typical Parts With These "Quality Questions:"*



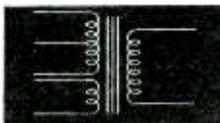
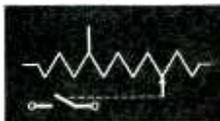
FILTER CONDENSER—Does it get excessively warm in normal operation? Does cardboard-type electrolytic container show stain from chemical contents?

BYPASS CONDENSER—Is rated working-voltage sufficient to handle voltage peaks? Are terminal leads securely fastened to ends?



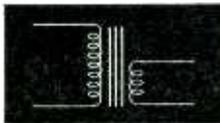
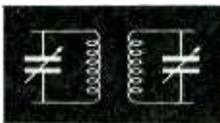
RESISTOR—Will the wattage-rating be sufficient for the job? Will it heat enough to "boil out" other adjacent parts?

VOLUME CONTROL—Is zero-signal reached before the switch cuts off? Is volume change smooth and gradual rather than jerky and rapid?



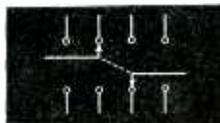
POWER TRANSFORMER—Will it operate 10 hours a day if necessary without overheating? Are output voltages up to snuff at the required load?

I. F. TRANSFORMER—Are windings securely fastened and well-insulated? Would trimmer edges or coil leads readily touch the shield can?



OUTPUT TRANSFORMER—Will audio voltage arc over to speaker frame and make it "hot"? Will core handle power without distortion?

SWITCH—Is push-button switch type insulation husky enough to prevent warping and release of contacts? Are band-switch contacts likely to oxidize early?



*Troubles reported most frequently encountered.

For the Few Cents Difference It Pays To Use Standard Parts

BIGGEST BATTLE in promoting sales is the one staged on the prospect's doorstep.

Any method that will get the salesman into the home is well worthwhile and the simplest is to hide him behind the beard of a serviceman, often envied for his easy entrée.

Let 'em Gab

Servicemen, when urged to be part-time salesmen, usually resent this "doubling in brass." But they can obtain valuable ammunition for the salesman almost without lifting a finger.

During service calls people are off guard and will offer in normal, gossipy conversation facts and even figures about their personal lives that they would attempt to withhold from a contract-pusher.

People often ask: "How is the radio business?" When the serviceman replies: "Picked up quite a bit lately," and elaborates, it sounds perfectly natural when he later asks: "How are things in your (or your husband's) line?"

The deluge of data brought on by such simple questions may have to be almost forcibly stopped if the serviceman is to complete his calls that day, but place of business, position, financial responsibility, and credit references are immensely valuable to the sales staff.

On escape to the shop, these facts as well as hobbies, type of home furnishings, appliances owned and their age, in fact anything observed or discussed in the home can be noted down.

May Seem Silly

When the dealer or salesman looks over a service card he should get a mental picture of his prospect, business, hobbies, appliances owned, interests. He can then judge the next item to be purchased and formulate a logical method of attack.

Suspected prospects from the job card data are a natural for the salesman using a service door approach. Suppose a man walked into your

SERVICE . . . How to Use It as a Sales Stepping-Stone

By VIN ZELUFF

store and said . . . "Good morning Mr. Jones, I'm from Excess Cash Register Co. We repaired your machine last year and I stopped in to make sure it is still operating properly."

You might not want to buy anything but apparently he's not selling anything so you would let him in to look it over. Few people have sales resistance to a free checkup. Once in, he checks the old tin box, starts gabbing. And by the time he leaves you've bought a modernistic, plus-ultra model that even tallies the toothpicks in the rear cubby-hole.

The same psychology can be used by salesmen calling on prospects. They expect a sales talk from a stranger at the door, but when they recognize the name of the local merchant and the service offered, are disarmed and can be easily led into taking advantage of the kind, generous (?) service proffered.

Three-Way Plan

Following are suggestions for the use of the salesman, dealer and serviceman in following through a sales-from-service program.

SALESMEN should . . .

1—Check job cards for radio age. *Your best prospects have sets over three years old.*

2—Call on these, take tube tester and offer a free inspection. *"It's a new policy of the store to check up on repairs made."*

3—When lady of the house says she doesn't want to buy anything, you haven't anything to sell, unless it's the tube tester. *Believe this yourself and you'll quickly convince her.*

4—When admitted, really make a checkup, not technical but showy. *Ostentatiously inspect the plug, cord, leadin, ground lead, even before turning set on.*

5—While trying radio handle it carefully. *She thinks a lot of it even if you don't.*

6—Don't be afraid to praise old set. *Customer likes to justify his judgment in buying it.*

7—Customer may suggest recent-

troubles with radio. If not, mention that this and that could be better. *They MIGHT let you take it to the shop.*

8—If this happens what will you loan her to use? *An old, second-hand midget? Not if you are sane!*

9—Maybe they have bought a new radio since last repair. *What does your job card show they need in appliances?*

10—Plug new entertainment features of modern radios. *Avoid technicalities about so many tubes, bands, parts.*

11—If job card shows they want to buy a new so-and-so soon, they must have some money now. *Why not switch them to a new radio?*

12—YOU pick the model the customer should have. *And YOU sell it to them.*

DEALERS can . . .

1—Follow-up prospects obtained from the service department. *With mail pieces to fit the customer's future needs.*

2—Phone-cavass or postcard previous repair customers. *Make appointment for free checkup by salesman disguised as serviceman.*

3—Occasionally pick a name and address at random and send service-

man or salesman on checkup call. *Don't tell the boys its "phoney."*

4—Over-the-counter repair jobs will give the salesman entrance into the home. *If he delivers the squeak box when repair is finished.*

SERVICEMEN should . . .

1—Gossip with customer and report all information. *No matter how "thin," on the back of job cards.*

2—Bring old radio to shop whenever possible. *Leave door open for salesman.*

3—On delivery of repair jobs, tell customer it is policy of store to check up on radio at end of guarantee period. *Pave way for salesman later.*

4—Make no attempt to judge sales prospects by amount of repairs. *Let dealer or salesman decide the possibilities.*

5—Keep informed of new developments, new services, programs, F.M., television. *Many customers have a special interest that they themselves do not recognize.*

6—Report quickly such expressions as: "I won't spend much money on repair, I want to buy a new set soon." *Salesman can settle that NOW.*

PLAN Without PAIN

RELUCTANT TECHNICIANS employed by dealers have often been goaded to actually sell.

This extreme is rarely smart business because their's is a demanding and important function in itself.

But they can and should cooperate with salesmen in the production of leads . . . thereby insuring the future of the firm for which they work and, incidentally, their own

Coming -

the greatest
the year for r



PHILCO JUKEBOX PROMOTION

Your Philco distributor is
merchandise event that will
and Big Profits for the Ph

A typical Philco promotio
sales appeal . . . Bigger, B
has ever done!

A nation-wide promotio
national and local adve

A practical retail prom
need to pull traffic an

In a few days, you'l
tributor. In the me
opportunity of the

PHILCO ALL YEAR 'ROUND FO

HOME RADIO • PHONOGRAPHS • TELEVISION • AUTO RADIO • RADIO

**profit event of
radio dealers...**

ANNIVERSARY PROMOTION



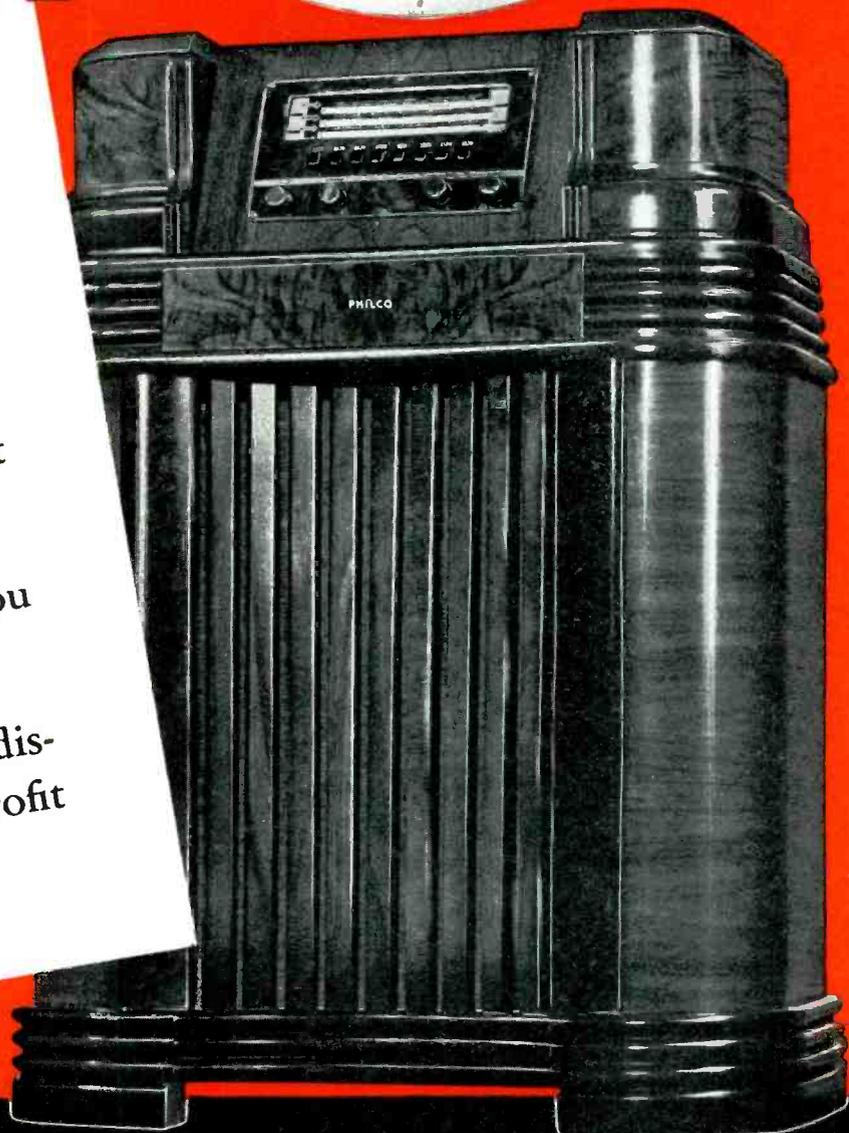
getting the news now of a *gigantic*
make history in the radio trade . . .
Philco dealers of America!

on . . . full of fire, enthusiasm and sound
better, "Hotter" than anything *even Philco*

on backed by the power of Philco's great
advertising campaign!

ation with the *propositions* and offers you
and close sales!

l get the full story from your Philco dis-
antime, *clear the way* for the biggest profit
1941 radio season . . . *with Philco!*



FOR PROFITS ALL YEAR 'ROUND

TUBES • PARTS REFRIGERATORS • AIR CONDITIONERS • DRY BATTERIES



ADMIRAL has further "sweetened" its line of display material with . . . A 61-inch high display stand featuring a compact radio held by a pretty girl with plenty of S. A. . . . A 24 by 37 by 20-inch counter-type display holding three compacts . . . A 65 by 43 by 16-inch semi-circular stand holding nine compacts . . . And a classy 67 by 54 by 24-inch combination background and raised platform particularly effective in floor or window displaying larger consoles and combinations . . . All displays done in good, bright selling colors . . .

ANSLEY is ready to supply new pocket-size 22-page illustrated booklets suitable for dealer mailing, covering top quality items of its line . . . Has another booklet featuring just the Essex model and still another concentrating upon just table-type radio-phonos combinations . . . Also supplying printed list price sheets, one for ac models and the other for ac-dc equipment types . . .

AUTOMATIC advises that it is just releasing for dealer use a complete catalog featuring all models in detail . . . Mats and newspaper advertising suggestions . . . Consumer booklets . . . Also special advertising copy to fit specific models . . .

BRUNSWICK Division of Mersman Bros. springs a surprise, announcing a "point-of-sale" aid in the form of two-minute records that actually do much of the salesman's talking for him . . . Called "Invisi-Talk", the complete set comprises 8 discs, each one specially recorded to sell a

specific period model instrument within the line . . . When records are played during demonstration they give a personalized historical account about the origin and authentic design of the cabinet, factual details about the craftsmanship and origin of woods . . . Just about all the salesman has to do while the record is playing is point to the features mentioned . . . And then corral a check!

CAPEHART Division of Farnsworth has ready at presstime an elaborate booklet featuring nine "Panamuse" models . . . Two folders suitable for mailing at low cost on these same models and two on "Capehart" models . . . Also several quality-type store and window display pieces at present in process of preparation . . . Will shortly release an 8½ by 11-inch full-color brochure illustrating the 400-K "Capehart" series . . . All printed matter particularly designed with direct-mail dealer campaign needs in mind . . .

CROSLY boasts three stunning new displays for Glamor-Tone radio . . . All in full color, picturing Beatrice Blaxton, famous New York model . . . Cabinets appear virtually as realistic as if they were in the actual wood . . . Lithographed from color photos . . . Two are life-size, one measuring 68 inches high by 43 wide and the other 56 inches high by 44 wide. The third is a reproduction of one of the larger displays and measures 17½ inches high by 16 wide . . . Company also offers a new consumer folder commemorating radio's 20th Anniversary, picturing and de-

scribing its full line of radios, combinations and recorders . . .

DeWALD times announcement of a new display stand to hit the very beginning of the Fall selling season . . . Stand, designed for use on counter or in window, provides space for three radios, is finished in three colors . . . New, green-covered, pocket-size consumer booklet sells the firm's name and products on covers number 1, 2 and 4, contains 24 ruled memo pages designed to induce prospects to keep it for social and business notes . . .

EMERSON this month launches the most extensive Fall promotional drive in its history, direct-mailing dealers complete instructions relative to tie-in methods and placing additional details in the hands of distributors for forwarding to the trade . . . Among novel sales-stimulating ideas is a \$1,500 competition for retailers, invited to estimate September set sales by types . . . Circular announcing competition is headlined: "Sell-Up, Of Course—but it takes practical merchandising, not theory, to increase your dollar profit." . . . Emphasizes "balance" of the line, planned to get both "mass and class" business . . . Promotion offered also includes many new "silent salesmen" for stores . . . Special streamers, window-displays, banners, "dodgers" . . . A new porcelain metal outdoor sign . . . A new tube display (and a tube competition) . . . A huge consumer broadside . . . And heavy cooperative advertising to run this month and next . . .

ESPEY offers an illustrated sales booklet covering its complete line of radio-phonographs . . . Two folders concentrating attention on straight electric phonographs without radio . . . Magazine-size data sheets on several instruments . . . Printed folder boosting a high-fidelity receiver with room provided for dealer imprint . . .

FADA heads its parade of dealer aids with a 64-page book containing pictures, prices and specifications of the complete radio and phonograph line . . . Will provide authorized dealer sign, two-color streamers, store clock, neon display piece, three-dimensional silk-screen processed window cards, price-display cards, glossy photos of sets . . . Latest printed literature includes popup style consumer folder covering complete line, smaller folder highlighting two new receiver values . . .

FARNSWORTH, following a field-survey of dealer needs in the way of promotional material, announces the following . . . Roadside signs, available on a cooperative, lease basis . . . A store wall-hanger, picturing and describing the complete line . . . A presentation book, the back section of which may be effectively used when selling the consumer . . . A line folder covering combinations, another concentrating on radios alone and still another designed for special localities where telecasting is an important factor. Three displays: One a floor type with mounting shelves for compacts, another a similar but smaller counter type and the third a backdrop for setting off consoles and combinations . . . Special emphasis is given the Capehart-Farnsworth record-changer by a metal demonstration stand exposing a sample unit to full view . . .

FEDERAL "spares not the horses" with a particularly complete line of dealer aids . . . Home demonstration flyer, 11 by 15-inches, 4-color, is designed to be distributed house-to-house or handed out in the store . . . Another folder, 9 by 12 overall, spotlights a special disc offer . . . Merchandise folder, 13½ by 12½, two colors, shows complete line of recording radios and can be folded into small envelope for mailing . . . Window cards, 11 by 14, two colors, equipped with easels . . . Hint booklet is pocket-size and contains dealer promotion ideas . . . Newspaper ad cuts and advertising suggestions are available in a planbook . . . "Off the record sales manual" is a special loose-leaf job for dealer use only . . . Merchandise broadside (ready by the time this issue of **RADIO RETAILING** mails) will be a 22 by 28-inch, two-color description of dealer aids on the outside spread, sign suitable for use by dealer in inside spread . . . And still more 11 by 14 display cards for wall or window to come . . .

FREED is preparing for early use a complete new series of dealer helps for Fall campaign use in territories served by F-M transmitters . . . Central piece will be folder entitled: "How to Sell Frequency Modulation—and Freed-Eisemann" . . . Will take dealers step-by-step through typical sale, telling what system can do . . . Other aids planned include counter-cards, window-streamers, catalog sheets, dealer and consumer booklets . . . Featured will be the slogan "Famous Since Broadcasting Began" . . . Execs are also understood to be working on an idea to help dealers sell owners of "outmoded" receivers . . .

GENERAL ELECTRIC's promotional fire is concentrated upon election year selling with . . . A large assortment of elephant and donkey dolls . . . A large red, white and blue consumer folder showing electoral votes by states in past presidential campaigns, popular votes by states, a record of past candidates for president and vice-president and a check-chart in which election-night listeners may write returns as these come in . . . Planbook for dealers tells how the trade may best tie-in with election interest . . . Offered simultaneously, for Fall use, is a "Football Handbook" . . .

HOWARD opens its Fall campaign with a six-page consumer catalog about household receivers . . . Individual mats of the line . . . Large 8½ by 11 photos of all sets for dealer use . . . Electrotypes . . . Will supply another six-page multi-colored consumer folder about communication receivers . . . Plus four-page black and white catalog folder . . . Multi-colored wall or window panels . . . Newspaper mats or electros . . . Also has four-page multi-colored consumer folder about recording blanks . . . Record display stand finished in buff with chrome trim, space for needles, pamphlets . . .

MAGNAVOX continues to hammer at potential prospects for radio-phonograph combinations with a folder entitled "Catching Them Young" . . . Appeal is to parents relative to musical education of children and culture for the youngsters . . . Excellent text by Deems Taylor . . . Photos of cute kids and impressive instruments but no price or gadget selling . . .

MOTOROLA dealer aids now ready feature merchandise display stands . . . Largest set-up includes a floor-type centerpiece providing room for eleven compacts, two side-wing displays comprising background and raised platform for consoles or combinations (called "money-maker" displays, these three may be used separately if desired) . . . A new revolving

display, motor-driven, is circular in style, holds five or more compacts . . . Counter display holds four compacts . . . Intriguing offset-shelf floor display features small sets or record-players . . . Then there are, in addition, "waving-flag" displays, display cards, price-cards, window streamers, outdoor drill-material banner, illuminated indoor sign and plastic sign . . . Effective too, are promotional ash-trays, plastic golf tees bearing the Motorola trademark and dealer demonstration records . . . A 48-page catalog for counter use and a large "passout" mailing-piece completes the latest promotional material lineup . . .

PHILCO, supplying dealers with every conceivable variety of promotional aid as this issue goes to press, advises that many additional items now in preparation will be ready shortly . . . Details are not available as we write but it is understood that the new dealer helps will be sent to distributors late this month, to be placed in the hands of the trade concurrently with the beginning of a special October sales drive . . .

PILOT, planning still additional dealer helps, already has the following ready . . . Giant cloth store or window banner, in colors . . . Salesman's Manual built on the "question and answer" principle . . . Large and very complete book of model specification sheets, containing all essential data about the line . . . A large set specification chart upon which features may be instantly spotted . . . Two easel-type counter display cards, in several colors . . . A decalomania for the windows of authorized dealers . . . A pocket-size booklet for consumer mailing, covering entire line . . . A clever cutout style sign bearing the company's trademark, operated on the "pop-up" ad principle . . . Testimonial letter about marine portables from the magazine "Yachting" . . . And a typical dealer ad suggestion . . .

RCA VICTOR provides enough Fall sales help printed matter to sink a battleship . . . Posters include: Large two-color job plugging home recording, smashing red, white and blue streamer featuring the "Presidential" model, two-color streamer featuring the "Great Artists" themes, another on "Pick-Me-Up" models and still another on farm radio models . . . Booklets include: Two elaborate ones about the Victrola line, complete line folder and "How to Sell RCA Victrola Radio Phonographs" (sales "bible" for dealer use only) . . . Envelope stuffers include: One on "Pick-Me-Ups", another on home recording, another on table types, another about presidential models, another about farm radios and record-players and a four-color mailing piece featuring war-

(Please turn to Page 59)

Service PARTNERSHIPS



IN THE BLACK—While Merle Swarthout and Kirk Hampton of Friendship, N. Y., are both trained technicians they have sufficient horse-sense to specialize, one on the bench and the other in the field

MANY SERVICEMEN have formed partnerships with other radio technicians. Some of these mergers have been successful but more have failed.

Perhaps this will start an argument but I have reached the conclusion that the better a serviceman is technically the poorer he is apt to be as a businessman. Scarce indeed are top-notchers on both counts. Yet when looking for a partner technicians are frequently drawn to men whose abilities are too similar to their own. I suppose this is human nature but it is poor business.

Twice As Much Red

Let's take the case of a highly technical radioman contemplating a partner.

Assume he has a lot of customers and plenty of work, perhaps even more work than he can handle comfortably due to his reputation for fixing receivers right. But his profits are not what they should be.

The thought of a partner to take some of the load off his shoulders and invest new capital is very attractive, so he hooks up with a man who is also a crackerjack technically. The partnership is formed and after a few months, even though business has increased and perhaps doubled, the partners find that they are not making enough money to

warrant double salaries.

Two technical experts with inadequate business ability have merely gone into the red twice as far as one could go.

The Right Combination

The most successful partnerships I know are composed of two servicemen having decidedly different characteristics.

One man is by nature a fine technician, wants to and does spend most of his time on the repair bench. The other, possessing good technical training and practical repair experience, leans of his own volition toward contact work or, if you please, "service-sales." With a workable knowledge of radio, plus personality, he clicks with the public. He calls at the customer's home, tests tubes, brings all sets that need bench service to the shop, delivers them when they are fixed. He breaks the news about the bill and brings back the cash. He also keeps the firm's books in some semblance of order, does much of the buying, continually checks operating costs.

In such successful partnerships it is always noted that the partners not only respect each others abilities but also realize that *both pull their weight*. And I want to point out particularly that without this attitude not even such combinations

By

HAROLD F. JENKINS

Fred C. Harrison Co.

could long continue successful. Many otherwise ideal partnerships have crashed for lack of it.

Ask a Third Party

Because self-analysis is so difficult for most people I would suggest that servicemen considering a merger consult some third party relative to the partner in mind.

Suggested is a third party familiar with the life, habits and abilities of both parties. I suggest that the jobber or his salesman is a good third party to consult in connection with this new problem, provided he knows both men.

Never Too Late

Partnerships already established and apparently headed for the rocks need not despair.

As an example, the writer recently was instrumental in reorganizing an ailing shop with such management. In this case each of the two owners merely divided the service calls as they came in. Each one called on customers, brought sets to the shop, repaired and returned them.

One man seemed to have excellent luck collecting for work done when receivers were delivered but had quite a high percentage of job rebounds. His partner seldom had a kickback but did have much difficulty collecting for work done.

By inducing the first man to take care of all outside contacts while the second specialized entirely in bench work things were immediately improved. Efficiency was increased as the bench man did not have to constantly interrupt his work to rush madly across town in answer to a hurry-up call. And the contact man easily gets into the swing of "call and deliver."

Six months ago our concern had this shop marked as an eventual failure. Today it is considered nearly at the top of our list in credit standing and volume of business transacted.

COLOR

Identifies the Voltage No Chance for a Mistake



Every Voltage
Clearly Coded
to RMA Specifications

P. R. MALLORY & CO. Inc.
MALLORY

TUBULAR PAPER CONDENSERS for Easiest Service

Once again Mallory leads the way . . . this time to bring condenser values on paper tubulars right out of hiding. Now each Mallory Tubular Paper Condenser is clothed in a colorful jacket. It gives better visibility to capacities . . . and instantaneous recognition of voltages. The bottom of each band is color-coded to RMA Voltage Specifications. This color goes completely around the condenser. You can readily see it and identify it no matter how it is placed in the set. Here's easier . . . faster . . . more profitable service.

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

And remember this! The outstanding high quality construction of Mallory Tubular Paper Condensers has been further enhanced with the new label merely applied over the familiar heavy cardboard tube and thick wax coating.

See these dressed-up Mallory Tubular Paper Condensers today. They're so good looking you'll want to display them yourself! Your Mallory distributor has them for 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

TRUE BLUE

In Performance as well as Appearance



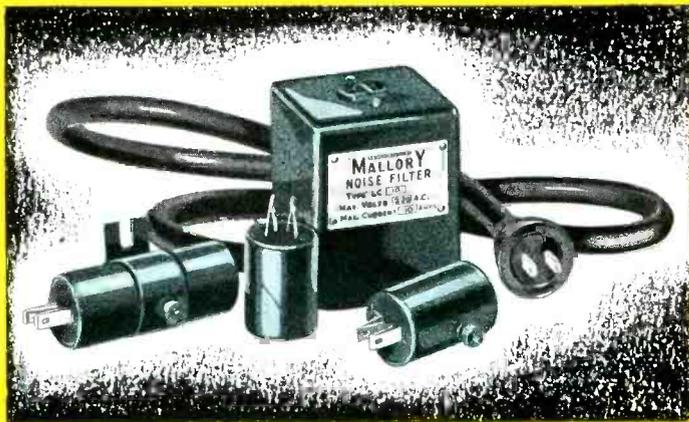
P. R. MALLORY & CO. Inc.
MALLORY

IMPROVED Vitreous Resistors

ADD TO YOUR PROFITS by

Subtracting Interference

with P. R. MALLORY & CO. Inc.
**MALLORY
NOISE FILTERS**



Hundreds of dealers and radio service engineers are enjoying unexpectedly large profits by featuring Mallory Noise Filters. The increased use of home electrical appliances has created a real need for efficient control of man-made interference. You'll cash in, too, if you display Mallory Noise Filters in your place of business . . . carry an assortment on every installation and service call.

Every owner of a radio receiver is a prospect for Mallory Noise Filters. Formerly "well behaved" appliances are likely to "set up a howl" at any time. If you are on the job with Mallory, you'll make a profitable sale right on the spot . . . with a minimum of effort.

Get all the facts on Mallory Noise Filters and Mallory sales helps.

Here's a line of real thoroughbreds. Mallory Improved Vitreous Resistors have an engineering pedigree that is second to none in the industry. In every essential they are as fine as quality materials and workmanship can make them.

Maximum wattage dissipation throughout longest life. No permanent change in resistance under prolonged and severe overloads. Maximum resistance to humidity and even severe salt spray tests. Permanent rating identification through embossed metal band. These are the *practical* working features of Mallory Improved Vitreous Resistors. They assure really satisfactory service plus dependable profits.

You can get Mallory Improved Vitreous Resistors from your Mallory jobber in every needed wattage. Order a complete assortment today!

See your Distributor NOW!

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

ELECTION Sound

NOVEMBER 5TH the nation goes to the polls to elect a president. Prior to that day, sound operators can reap the biggest harvest in the history of public address.

Yet only careful planning, and a serious consideration of several vital factors will insure profits for the election-sound operator.

Determining Rental Fees

First, it is necessary to consider rental fees. About 90% of all election work is done on a rental basis. Several different arrangements are encountered.

(1) Use of dealer's sound truck, amplifying equipment, and necessary labor to operate same.

(2) Use of sound truck and equipment. Operator supplied by political organization.

(3) Use of amplifying equipment only. Car and operator supplied by political organization.

It is best for the operator to determine his rental on the three bases named. One operator, telling of his experience, charged \$400.00 for a two-week rental, rain or shine. He supplied the truck, amplifying equipment, and his own labor at an average of \$28.50 per day. The "day" consisted of parading around the neighborhood from 3:00 to 7:00 p. m., and a later street-corner meeting which lasted from 8:00 to 11:00 p. m.

This sound operator supplied his services on a contract basis. Arrangements may also be made on a day-to-day basis. On single day rentals, fees should be figured on an hourly basis. \$3.00 per hour for the rental of truck, equipment and labor seems to be a reasonable average fee. The actual amount is influenced to some extent by the size and financial ability of the political organization.

Remember the necessity of dealing with a specific individual, and not with the organization as a whole. Arrangements should be made with a responsible person, usually one who is known in the community as a respected businessman.

Building of Fleets

Some sound operators who handle election work on a large scale are able to send out several trucks

By

R. C. REINHARDT

Sales Mgr., Atlas Sound Corp.



CAMPAIGN CRUISER—James G. Montross of Troy, N. Y., finds a station-wagon ideal, with plenty of room to carry equipment, a tailboard from which politicians can speak

or sound cars. Political leaders themselves are sometimes able to obtain extra trucks and cars from campaign supporters.

In order to tackle several jobs at one time, it is necessary for the sound operator to have several systems available. Before you invest in additional equipment, however, determine whether the additional rentals will bring in enough to pay for the equipment. It is usually not good practice to contract for a job which will bring in return only the cost of equipment which will be "left over" for future sound work unless you have future prospects for it in mind.

Investment In Equipment

Don't be discouraged if you don't have a sound truck as such. It is very easy to convert the ordinary pleasure car into a sound car. There are standard platforms available on the market and there's nothing to prevent the building of your own platform.

This can be done by getting some

planks organized in box fashion, with the "bottom" cut out to fit the contour of the roof. Ordinary rubber tire tube strips can be nailed to the platform to prevent scratching.

Outside of the commercial truck itself, the most popular sound car in recent years is the station wagon, which has plenty of room for equipment in the rear, and is usually used by sound operators for other purposes, such as deliveries.

One well known sound operator.

James G. Montross of Troy, N. Y., has equipped his "Campaign Cruiser" with gas driven generator, amplifier, speakers, record player, and microphone. The tail-board of Montross's car is used as a speaking platform by political campaigners.

Selection of Equipment

The Montross Sound Systems "Campaign Cruiser" is an ideal, typically modern sound truck. Montross has made a prudent selection of equipment. He uses new projectors and permanent magnet dynamic compression type units which take a minimum of space on top of his truck. Whenever he needs additional speakers, he thus has plenty of room to spare.

In most cases, an amplifier operated from a 6 volt storage battery source will be found practical with efficient speakers. Generally speaking, if speaker efficiency is high audio power may be low. It follows that any such reduction of required

(Continued on page 71)

Ideas that sell APPLIANCES



SHOWMANSHIP is an essential requisite in any retailer's set-up. It plays an important part when dramatizing display and demonstrating any product.

Presented herewith are five methods of showmanship that have been successfully used to attract and hold the customer's attention.

Prodigal Salesmen

Rice and Tyler of Providence, R. I., recently assigned its two youthful salesmen a quota of a washer apiece for the day, with trade-in instructions up to 10 per cent on old washers or other appliances that could be resold.

The last prospect contacted was a "tough 'un" and the boys finally took a calf as down-payment. The washer had a six-pound capacity while that of the calf was unknown. The dealer reports that the calf was easily disposed of at the allowance price and everybody was happy.

Hangs by Its Hinges

An exhibit at the New York World's Fair dramatically demonstrates the sturdy construction of door hinges on a deluxe 6 cu. foot refrigerator.

Besides, it provides the customer with a full inside view of the model.

It Pays to Change

John A. Schwarz and Sons of Brooklyn conducted a Crosley

"Shelvador" sales campaign with the theme "Your Old Refrigerator Is Costly."

The third photo on this page shows effective and novel window display which was materially aided by the mechanical penguin that moved a pointer up and down, lending animation.

Potato Chips

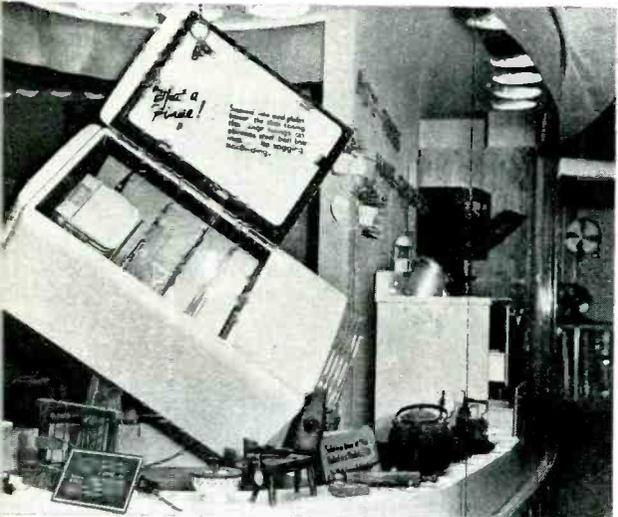
Coming under the head of unusual applications for appliances, the Gimbel Manufacturing Co. largest maker of potato chips in San Antonio, Texas, reports the use of a General Electric spin-basket type washer for extracting water from potato slices before cooking them into chips.

In the words of the owner: "purchased five years ago, the unit is used eight hours a day, six days a week, and has never required the services of a repairman."

Washers by the Carload

The fifth illustration on this page shows Bob Kuehne and Ned Smith, partners of the Service Electric Co. of Oconomowoc, Wis., uncrating a carload of washers in front of their store.

Knowing that the public is always impressed by volume business, they reproduced the photograph in a newspaper ad, with copy emphasizing the arrival of a new carload of washers to meet public demand.





MAKE THIS MULTI-MILLION MARKET

Yours WITH ROCK-OLA Recorders

Millions Want to—

- Make records of musical progress • Put favorite radio programs on discs • Record holiday greetings, personal messages • Catch high spots of parties, birthdays, etc. • Make records of history making events • Practice public speaking • Play records • Use as public address system • Use as straight radio for broadcast reception.

EVERY ROCK-OLA RECORDER WILL DO THESE 5 THINGS:

- MAKE RECORDS of Voice or Music
- PLAY ANY RECORDS—Your Own or Purchased
- RECORD RADIO PROGRAMS
- SERVE AS PUBLIC ADDRESS SYSTEM
- RECEIVE REGULAR RADIO BROADCASTS

Models R-4-6-8 Available with Automatic Record Changers.



6
CONSOLES

- Exclusive AUTO-MATIC LIGHT-UP CABINETS
- Exclusive RECORD STORAGE COMPARTMENTS
- Exclusive CONVENIENT MICROPHONE OUT-LET



A
PORTABLE



A TABLE
CONSOLE

Built Specially for Home Recording
Single Button Switch-Over
Crystal Microphone included with each set

RICH FULL TONES
SIMPLE EASY OPERATION
Push Button Tuning

● The key to dominating this season's market for recorders in your vicinity is to offer *most features, biggest value and best performance* for the money. Rock-Ola, already a leader in the phonograph industry, has come into this field *knowing the competitive values you need and giving them to you!* It's the sweet-profit line of Rock-Ola Recorders . . . Study the features—Add up the sales points, and the answer is, Rock-Ola, the Line for You . . . plus Rock-Ola Discs for continuing profits.

Get in touch with the distributor in your territory for detailed proposition, prices, sales promotional literature, banners, display cards, mailing pieces and a preview of the general advertising plan. Every detail you check, you'll find pre-arranged to make selling easy. If your distributor hasn't called yet, send the coupon for facts and we will contact you through his salesman. Start now to make this market yours. Send the coupon.

ROCK-OLA MANUFACTURING CORPORATION
800 N. Kedzie Ave., Chicago, Illinois



Rock-Ola Manufacturing Corporation
800 N. Kedzie Ave., Dept. RR-9, Chicago, Ill.

Please rush me the details on the line of Rock-Ola Recorders.

Dealer's Name

Address

City and State

My best selling radio line is

Distributor's Name

Things HAVE happened at CROSLEY!

Sensational New "Glamor-Tone" Radio Line Acclaimed by Top-Flight Dealers from Coast to Coast

EVERYTHING we said a few months ago about the new Crosley organization has been realized. "Crosley on the March!"—"Watch Crosley!"—"Things Are Happening at Crosley!"—no longer are these predictions. Now they're confirmed—positive proof is at hand!

The new Crosley "Glamor-Tone" Radio Line has swept the nation!

Never before has there been such enthusiasm, such immediate response, such acclaim—all expressed in terms of ORDERS!

The tremendous values in this new line have been recognized. Distributors and dealers have ordered far beyond our expectations. New accounts have been opened up at a greater rate than at any time in Crosley history. From Maine to California and from Canada to the Gulf, first-line

dealers are doing a BIG business with this outstanding line! *This is a Crosley year!*

It's not too late to jump on and ride with the winner! Get in touch with the nearest Crosley distributor TODAY. See these great values for yourself! Get the details of the complete new Crosley program in detail.

Continuous National Advertising

National advertising on the new Crosley radio line will continue throughout October, November and December with large advertisements, in color, in the Saturday Evening Post, Collier's, Life and Look!—an even bigger campaign than originally planned!

Cash in on this great advertising and this great line of radio receivers before it's too late. We ask only that you see them—bear them—and get the prices. They sell themselves!

THE CROSLEY CORPORATION

Powel Crosley, Jr., President Cincinnati, Ohio
Home of the Nation's Station—WLW—70 on Your Dial

CROSLEY MARCHES ON!

Crosley's new factory organization, now complete, has formulated a long-range program—built on a sound sales and merchandising policy—that means great things ahead for the entire Crosley selling organization.

With a new and permanent program of product development, sales activity and advertising now well under way, the Crosley franchise rapidly is becoming one of the most desirable in the appliance field.

Big things have happened—bigger things are coming!

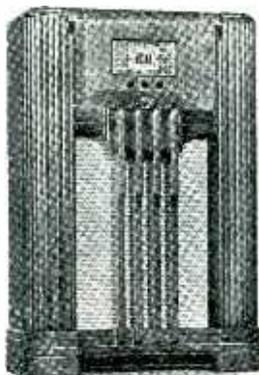
Keep your eye on Crosley!

Still Greater Things to Come in 1941— KEEP YOUR EYE ON CROSLEY!

New Products...

for the Big Fall Push

RCA V170 Combination radio and phonograph instrument priced at approximately \$90.00, f.o.b. Camden, N. J., has 6-tubes, two radio tuning bands, two built-in antennas, 12-inch loudspeaker and automatic tone compensation circuits. The cabinet is a popular modern design.



PHILCO 258F Handsomely designed console cabinet in highly-figured, walnut woods measuring $36\frac{3}{4}$ x $24\frac{3}{4}$ x $10\frac{7}{16}$ inches. Receiver has 6 tubes, oversize speaker, illuminated dial. Covers standard American broadcasts, both state and local police calls, night aircraft and amateur stations. Philco Radio & Tele. Corp., Philadelphia, Pa.

Wide swing frequency modulation, standard broadcast and short-wave reception. Automatically plays and shifts 10 and 12-inch records mixed together. Authentic Chippendale design cabinet in genuine walnut or mahogany. Stromberg-Carlson Tel. Mfg. Co., Rochester, N. Y.



BRUNSWICK 285 The *Wedgewood*, combination radio and automatic phonograph, is designed in a Sheraton commode of African and Honduras mahogany. Features a 7-tube receiver, 3 tuning bands, 2 built-in aerials, 12-inch speaker. Also features the *panatrop* deluxe automatic record changer which plays 10 and 12-inch records intermixed. Mersman Bros. Corp., 206 Lexington Ave., New York, N. Y.

RCA 15BT This 5-tube battery operated farm radio with clear vision dial is neat in appearance and can easily be converted to 110 volt operation. Cabinet, equipped with ample space for batteries, is of mahogany and walnut veneer. RCA Mfg. Co., Camden, N. J.



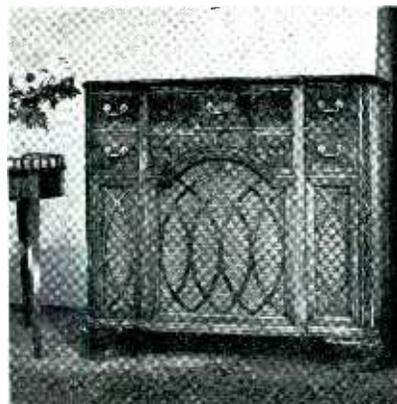
STROMBERG CARLSON 509 PT Combination radio and phonograph table-type set equipped with standard broadcast, American and foreign short wave reception. Plays 10 and 12-inch records. *Pre-set* stop works automatically to halt turntable when record is over. Features crystal pick-up, tone control. Encased in walnut cabinet with *drop lid*.



MOTOROLA 60X2 Portable table-type radio in streamlined ivory finish plastic cabinet. Features full vision illuminated dial with molded monogram pointer. This 6-tube superhet has a 5-inch speaker, *aero-vane* loop and wave trap to eliminate code interference. Measures $6\frac{7}{8}$ x $11\frac{1}{4}$ x $7\frac{3}{4}$ inches.



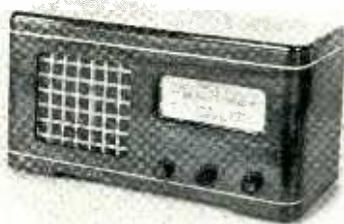
PHILCO 221C Here is a new portable table-type radio housed in a low streamlined cabinet of diagonal grain Sapeli with handsome standard plastic bezel. Radio has 6 tubes and covers standard broadcasts, American and foreign short-wave stations, state police calls.



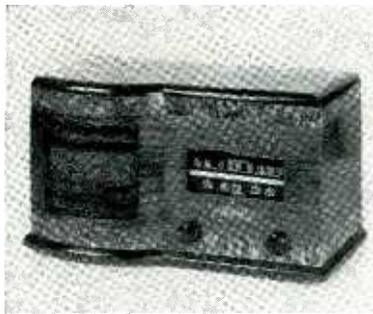
STROMBERG CARLSON 535 PG Console automatic phonograph and radio combination, has the labyrinth and special *FM Carpinchoe* speaker.



MOTOROLA 103K1 Latest modern designed console cabinet of selected walnut veneer has 10-tubes, including rectifier; 6 *feather-touch* pushbuttons; 12-inch speaker; semi-rotatable *aero-vane* loop. Covers 3 Bands: 540-1720, 1700-5700, and 5700-18,000 kc. Equipped with connection and switch for television, FM, and phono. Galvin Mfg. Corp., Chicago, Ill.



MAJESTIC New dual band ac-dc receiver with a tuning range from 540-1720 and 5800-18,000 kc., covering broadcast, police and foreign bands. Has continuous variable tone control, full vision slide rule dial and eight tuned circuits.



MAJESTIC Single band superheterodyne table model extends to police cars. Employs a heavy duty PM speaker and is equipped with avc. Chassis is housed in an attractive two-tone walnut cabinet. Majestic Radio & Tele. Corp., Chicago, Ill.

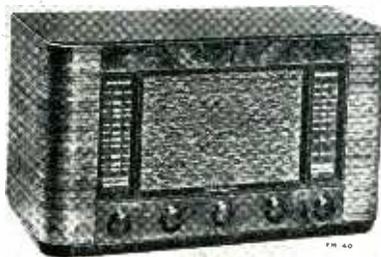


FARNSWORTH Tip-top tuning features design of this cabinet with four varieties of walnut. Radio control door, just above grill bars, tips forward and down, exposes dial, controls, buttons and Levertrols. Has 8 tube chassis and record player. Television bridge and two wave bands. Automatic record player is under top lid of cabinet. Model BK88 shown.



FARNSWORTH Model BK1030, smartly styled cabinet contains a 10-tube radio-phonograph equipped

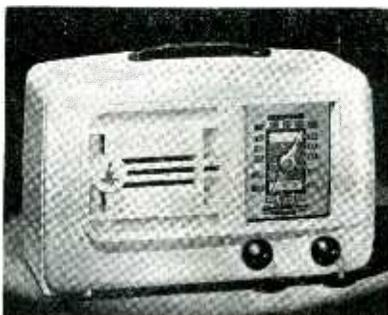
with 3 bands covering 540 kc. to 22 mc. Features the color-tone control; 12-inch speaker. Has the Capehart-Farnsworth record changer which plays fourteen 10-inch and ten 12-inch records automatically. Farnsworth Tele. & Radio Corp., Ft. Wayne, Ind.



FREED-EISEMANN A handsome 13-tube ac-dc superhet equipped to receive the entire new FM band, 42 to 50 mc., as well as the complete AM band, 1600 to 550 kc. The FM tuning dial is located at the right of the receiver, the AM dial at the left. Model FM-40 has pushpull audio output, employing 25L6 beam power tubes. Freed-Eisemann Co., 39 W. 19th St., New York, N. Y.

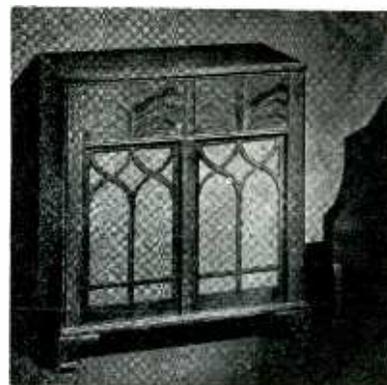


EMERSON 343 A 5-tube ac-dc superhet with *Miracle Tone* encased in a highly polished simulated walnut bakelite cabinet. Features a 6 1/2-inch speaker, 2 bands, eye-ease dial. Cabinet measures 7 1/2 x 12 7/8 x 6 inches. List price \$19.95.



EMERSON 336 New design in streamlined styling is this polished ivory plaskon which measures 6 1/2 x 10 1/2 x 5 inches and lists for \$12.95. Has 5 tubes; large speaker; two watts output. Emerson Radio & Phono. Mfg. Co., 111 Eighth Ave., New York, N. Y.

STEWART WARNER 888 Georgian period designed console cabinet is available in swirl mahogany, in figured walnut or in blonde mahogany. This superhet with 8 tuned circuits is also a record player and a *Microphono* recorder, equipped with crystal microphone. Set comes complete with one 8 and 10-inch aluminum base, double-faced blank records for home recording, as well as one cutting needle and 10 play-back needles. Stewart Warner Corp., Chicago, Ill.



ADMIRAL 61K7 A table radio, phonograph and recorder combination featuring a 5-tube straight ac receiver with a 6-inch speaker. Records program from the air or from a microphone furnished with it, or can be used as a small PA system.



ADMIRAL 43B4 A 5-tube battery operated radio with a 6-inch speaker has a frequency range from 535 to 1730 kc. Features an iron core antenna coil and iron core i.f. transformer. Continental Radio & Tele. Corp., Chicago, Ill.



KARENOLA 11 Electrically operated portable record player with automatic record changer. Accommodates fourteen 10 or 12-inch records at one loading. Features 6 1/2-inch speaker. Karenola Mfg. Co., 564-66 W. Randolph St., Chicago, Ill.



THE POPULAR-PRICED LINE THAT'S

Going Big



MODEL 722A IVORY PLASTIC CABINET \$19.95
 Powerful 6-tube AC-DC superheterodyne. Extreme selectivity separates "close together stations." Permanent magnet speaker for fine tone. Built-in loop antenna. Big illuminated dial. Large beautiful cabinet with convenient carrying handle—size 12½" x 7¼" x 7". Model 722, same as above in walnut plastic cabinet. \$18.95

Dealers by the hundreds are turning to ARVIN for radios that sell fast! **\$6.95** TO **\$29.95**
 PRICED FROM

Arvin sales are far ahead of any previous year—so many dealers have taken on Arvins to supplement their higher priced lines. Low list prices, good discounts, exceptional performance and eye-appeal are all combined to bring you quick turnover and "clear" profits on Arvins.

Backed by a company with total capital, surplus and reserves of more than \$5,000,000. Arvins are quickly obtained from conveniently located jobbers. Order one each of any six Arvin models and get a handsome FREE floor display and other sales helps.

NOBLITT-SPARKS INDUSTRIES, INC. • COLUMBUS, INDIANA



Model 622A Ivory Plastic Cabinet \$14.95
 Big, powerful 5-tube AC-DC superheterodyne. Built-in loop antenna. Illuminated dial. Electro-magnetic speaker. Cabinet size 11½" x 9½" x 6¼". Model 622, walnut plastic cabinet. \$13.95



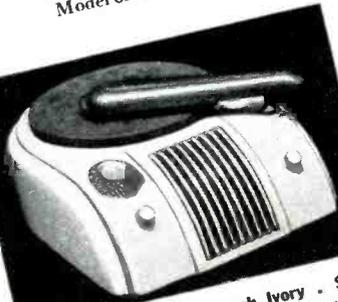
Model 632 in Rubbed Walnut Wood Cabinet . . . \$17.95
 A rich looking, excellent performing powerful 5-tube AC-DC superheterodyne. Built-in loop antenna. Electro-magnetic speaker. Illuminated dial. Size 12½" x 8½" x 6½".



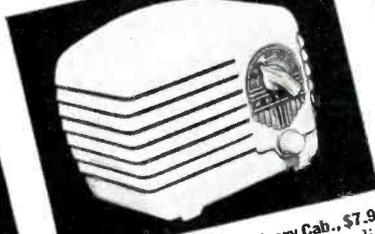
Model 522A Unbreakable Ivory Cabinet \$10.95
 Popular 5-tube superhet. Electro-dynamic speaker for fine tone. Illuminated, airplane type dial. Built-in loop antenna. Full volume control. Cabinet, 7½" x 5½" x 4¾". Model 522, same as above in walnut. \$9.95



Model 822 \$29.95
 Battery-Electric Portable
 Operates on batteries out-doors—110 volt AC or DC indoors. A 5-tube set with built-in loop antenna. Beautiful case 12" x 11" x 7¼".



Model 302A Radio Phonograph, Ivory . \$16.95
 Unbreakable cabinet. Powerful 4-tube radio. Beautiful reception. Plays 10" and 12" records. Permanent magnet speaker with special built-in audio system. Self-starting phonograph motor. Model 302, deep brown finish. . . . \$14.95



Model 402A Unbreakable Ivory Cab. \$7.95
 A snappy little 3-tube AC-DC radio. Electro-dynamic speaker. Attached 20 foot aerial. Duo-tone embossed dial. Size 6½" x 5" x 3¾". Model 402, same as above, in walnut, unbreakable cabinet. \$6.95

All prices slightly higher in extreme west, south and east.

PROFIT WITH

ARVIN

HOT NUMBERS

WESTINGHOUSE WR290 Large table model 8-tube set with 5½ watts pushpull output. Covers 3 bands, has electric pushbuttons, 6-inch speaker and is available in an attractive walnut cabinet. Eastern list price \$49.95.



WESTINGHOUSE WR486 An automatic radio - phonograph combination and home recorder. Radio covers

2 bands, has 12-inch speaker. Phonograph plays six 12-inch or seven 10-inch records. Complete with 6 blank records and microphone. Eastern list price \$150.00. Westinghouse Radio Headquarters, 150 Varick St., New York, N. Y.



MAGNAVOX Attractive Regency designed cabinet houses a 9 tube all wave radio, a separate 11 tube FM receiver, an automatic record changing phono, and a home recorder. Provides space for record storage. Four models are available with or without FM receivers or recorder. Magnavox Co., Inc., Ft. Wayne, Ind.

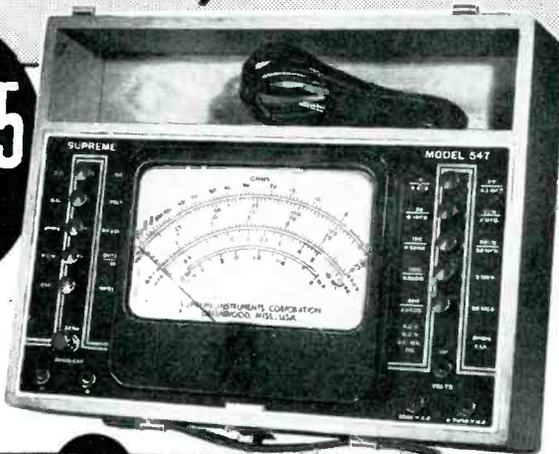
THE ILLUMINATED GIANT

Push Button Operated

FOR ONLY
\$33.95

Dealer Net Cash Price
S.I.C. Time Payment Plan
\$4.00 cash and 8 monthly
payments of \$4.17.

In Metal Case



SUPREME MODEL 547 MULTIMETER

SUPREME'S Speed Button System has proved to be the simplest, fastest and most convenient of all types of multimeter range and circuit selections. All that is necessary to obtain any range is to press one button on the left hand row and one button on the right hand row. Thus, at your finger tips you have instant control of 36 ranges as follows:

0.1 TO 3000 D.C. VOLTS—covered by six overlapping ranges of 0/6/30/150/300/600/3000. 1000 ohms per volt standard sensitivity. Accuracy $\pm 2\%$ on all ranges except 3000 volt which is $\pm 3\%$.

0.1 VOLT TO 3000 A.C. VOLTS—covered by six overlapping ranges of 0/6/30/150/300/600/3000. Accuracy $\pm 3\%$. This guaranteed circuit is fully compensated for temperature variations so you are assured that you can use it in winter or summer with equal accuracy.

0.1 VOLT TO 3000 OUTPUT VOLTS—covered by

six overlapping ranges of 0/6/30/150/300/600/3000. No external condenser necessary. May be used with any signal generator for receiver alignment.

0.1 TO 600 MILLIAMPERES—covered by five overlapping ranges of 0/6/30/150/300/600. Uses wire wound shunts calibrated to $\pm 2\%$.

1 OHM TO 20 MEGOHMS—covered by five carefully selected ranges of 0/2000/20,000/200,000 ohms and 0/2 meg. /20 meg. Low range has center scale resistance of 25 ohms.

-10 TO +44 D.B.—covered by ranges of -10/+4/+18/+32/+38/+44 calibrated to read D.B. directly on any 500 ohm line. Simple conversion chart is supplied so that readings may be taken on any line of known impedance.

0.005 TO 20 MICROFARADS—covered by three ranges of 0/2/2/20 nfd. Capacity values read directly on meter scale.

Model 547 incorporates a large 7" illuminated meter which allows accurate reading with minimum eye strain. Call at your parts jobbers and it will take you only a minute to see the difference between the Model 547 and other types of multimeters.

The Model 547 is also available in a beautiful Oak carrying case, as illustrated, \$38.50 cash or \$4.00 cash and 9 monthly payments of \$4.02.

MODEL 543 MULTIMETER

The Model 543 Pocket Multimeter uses a beautiful bakelite case measuring only 3" x 5½" x 2". Attractive two-color panel—full size 3" one mil meter. A single rotary selector switch provides functions and ranges of: Resistance—0/2000/200,000 ohms; Direct Current—0/6/60/600 M.A.; A.C.—0/15/150/600/3000 volts; D.C.—0/15/150/600/3000 volts. Batteries furnished and contained within case. Ranges at 1,000 ohms per volt standard sensitivity.

DEALER NET PRICE, \$11.95

SUPREME
SUPREME INSTRUMENTS CORP.
GREENWOOD, MISSISSIPPI, U. S. A.

SEND FOR NEW CATALOG

—just off the press. Large, two color illustrations, complete descriptions of 22 new 1941 model SUPREME quality testing instruments. Write today!



FEDERAL 301 Console combination radio, automatic phonograph and recorder is available in choice of walnut or mahogany cabinet. A 6-tube radio with 8-inch speaker receives standard broadcasts and police calls. Record changer plays 10 or 12-inch records. Recording mechanism cuts from outside-in on 6, 6½, 8, 10, or 11 inch discs. List price \$129.95. Federal Recorder Co. Inc., 50 West 57th St., New York, N. Y.



CAPEHART DELUXE Handsomely styled Adam cabinet (406-K) is available in either walnut or mahogany. Has a Capehart automatic record changer of the turnover type; radio tuner and 2 amplifiers using a total of 30 tubes; 40 watts output through one 12-inch and one 14-inch speaker; 6 pushbuttons. Capehart Div. of Farnsworth Corp., Ft. Wayne, Ind.



Bacillus S. paratyphi,
magnified 12,000 diameters



Lacquer pigments,
magnified 27,000 diameters

FROM RCA LABORATORIES COME

Radio Eyes

FOR MICROBE HUNTERS



Anthony van Leeuwenhoek of Amsterdam was the first to peer into the universe of the infinitesimal. With his crude microscope, he discovered in 1683 the "small beasts" which Pasteur and Koch and Theobald Smith later branded the most dangerous enemies of man—the germs of disease.

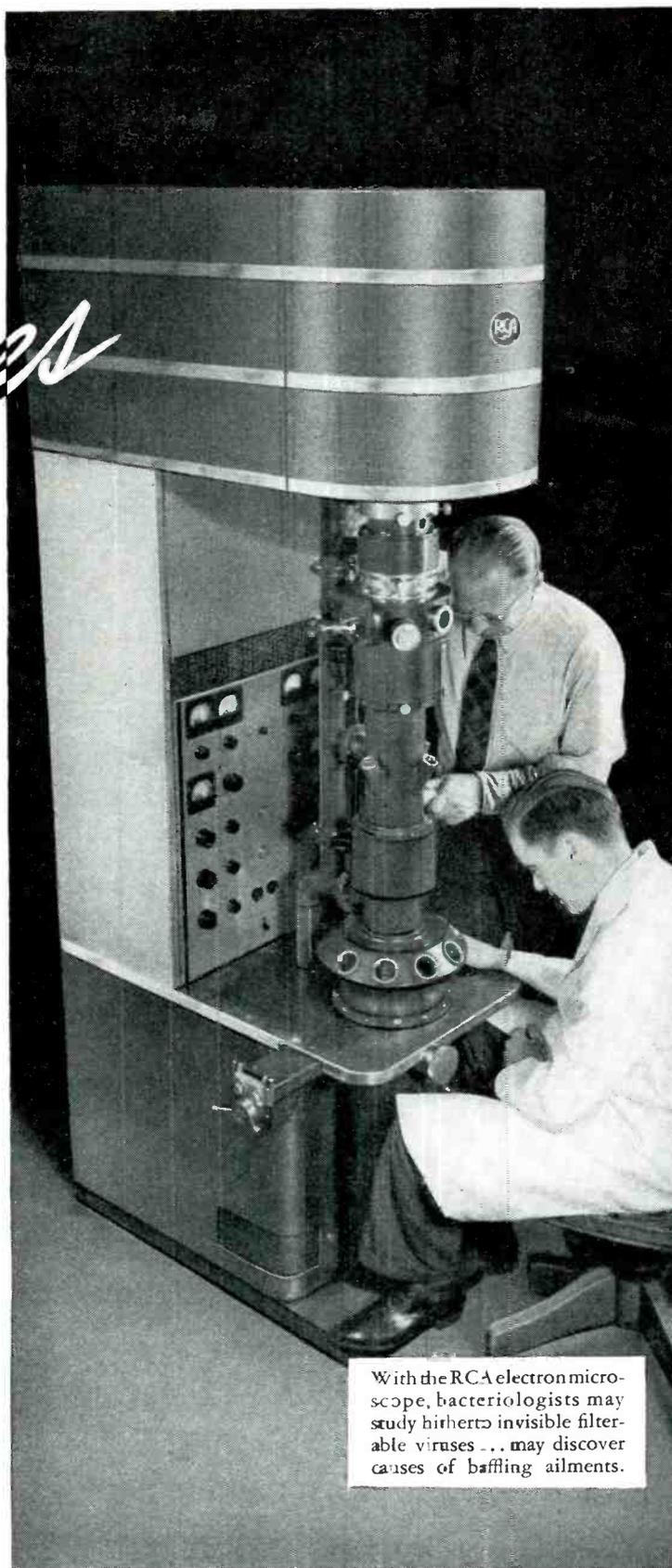
BUT there are micro-organisms too small for optical microscopes to detect. These instruments operate by visible light, which cannot resolve objects much smaller than the wavelength of the light. Bacteriologists have been able to see only the larger microbes. They have been able only to hope that somewhere, somehow, an instrument would be found that would magnify not 1,500, but 20,000... 50,000... 100,000 diameters!

Scientists in RCA Laboratories have engineered such a microscope. They studied the electrons active in radio and television, whose length was but a tiny fraction of that of a light wave. Research proved these electrons could be used as "seeing" rays. Focused by powerful magnets upon photographic film, they would reveal what had hitherto been invisible.

Research is Radio's Road to Progress

RCA's contribution to the development of the electron microscope is the result of a far-seeing policy laid down by the founders of the company in 1919: *that fundamental research must be the keystone of every activity of RCA.*

RCA research has made broadcasting better. It has made receiving sets better. It has perfected a magic voice for the motion picture. It has pioneered in television. It has developed facsimile transmission of pictures and printed matter. It has made substantial contributions to industrial progress in fields outside of radio... From continuing RCA research will come still more progress... still greater services to America and to the world.



With the RCA electron microscope, bacteriologists may study hitherto invisible filterable viruses... may discover causes of baffling ailments.



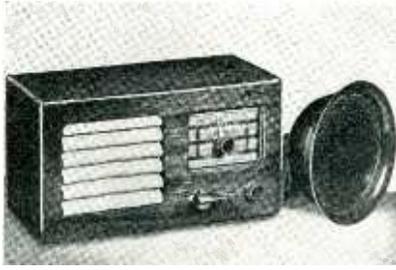
RADIO CORPORATION OF AMERICA

RADIO CITY, NEW YORK

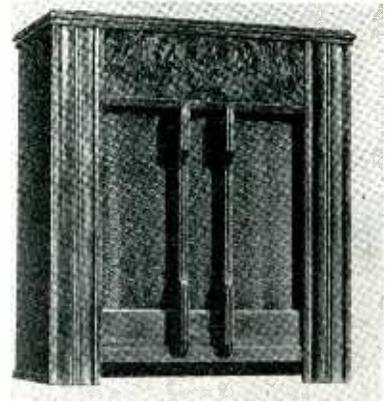
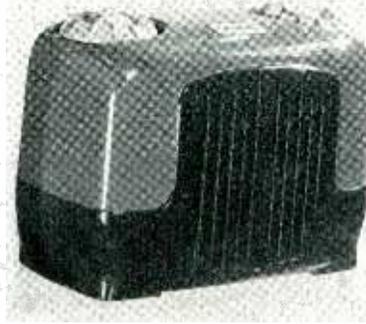
RCA Manufacturing Co., Inc.
RCA Laboratories

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

National Broadcasting Company
RCA Institutes, Inc.



SONORA The new, midget Gems, are available in plastic molded cabinets of three different color schemes—green-maroon, tan-green, maroon-tan. These streamlined Teeny-Weenies can be conveniently placed in any room of the home. Receivers have 4 tubes, weigh 4½ lbs. Sonora Radio & Tele. Corp., Chicago.



SETCHELL CARLSON Model 411RD, Radio Fone, a combined radio and inter-call system for office or plant, or for kitchen to door conversation. Features simple finger tip control for Talk-Listen position; bell-type baffle speaker, furnished with 50 ft rubber covered cable. Radio is 5-tube superhet. Setchell Carlson Inc., 2233 University Ave., St. Paul, Minn.

ROCK-OLA RA-4 Console model plays records, makes records, and receives radio. Features simplified level indicator for recording; tone control; built-in record storage cabinet. Model illustrated lists for \$99.95. Rock-Ola Mfg. Corp., 800 N. Kedzie Ave., Chicago, Ill.

**BIG
in Value**

ONLY \$18.85

MODEL 432-A TUBE TESTER



The Outstanding Tube Tester Value . . . Checks all type tubes including Loctals, Bantam Jr., 1.4 volt Miniatures, Gaseous Rectifier, Ballast, 117-Volt Series, etc. Direct Reading GOOD-BAD Meter Scale. Neon shorts test. Separate line voltage meter. Professional-appearing Counter or Portable Case with roomy compartment for tools, etc., \$18.85 Dealer Net.

Readrite
RAFTER

BIG BOY MODEL 860

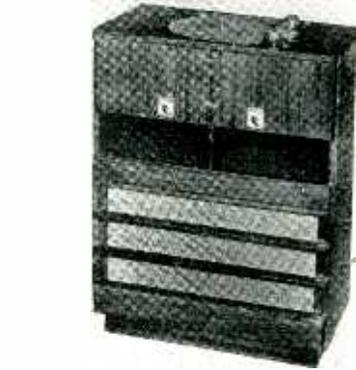
An AC-DC Volt- Ohm- Milli-ammeter with all the ranges you want . . . easily readable on the large 7" instrument with extra-long 6" scale. DC Volts 0-10-50-250-500-1000 at 5000 ohms per volt; AC Volts 0-10-50-250-1000 at 1000 ohms per volt; DC Ma., 0-1-10-100; Resistance ranges: 0-1500 ohms shunt type circuit; 0-750,000 ohms and 0-7.5, 0-15 megohms. (Battery included for 1500-ohm range). Dealer Net Price \$17.85



MODEL 510



A Handy Pocket-Size All-Purpose Volt-Ohmmeter . . . Ranges: 0-300 DC Volts; 0-10,000 ohms. Complete with battery . . . Dealer Net Price \$2.25



ANDREA Here is a heavy duty record demonstrator designed for convenient and time-saving record demonstrations. Houses a high-gain push-pull amplifier and constant speed motor with extra weight 12-inch recording turntable. Dealer cost \$68.00, f.o.b. Woodside, N. Y. Andrea Radio Corp., 48-20 48th Ave., Woodside, N. Y.

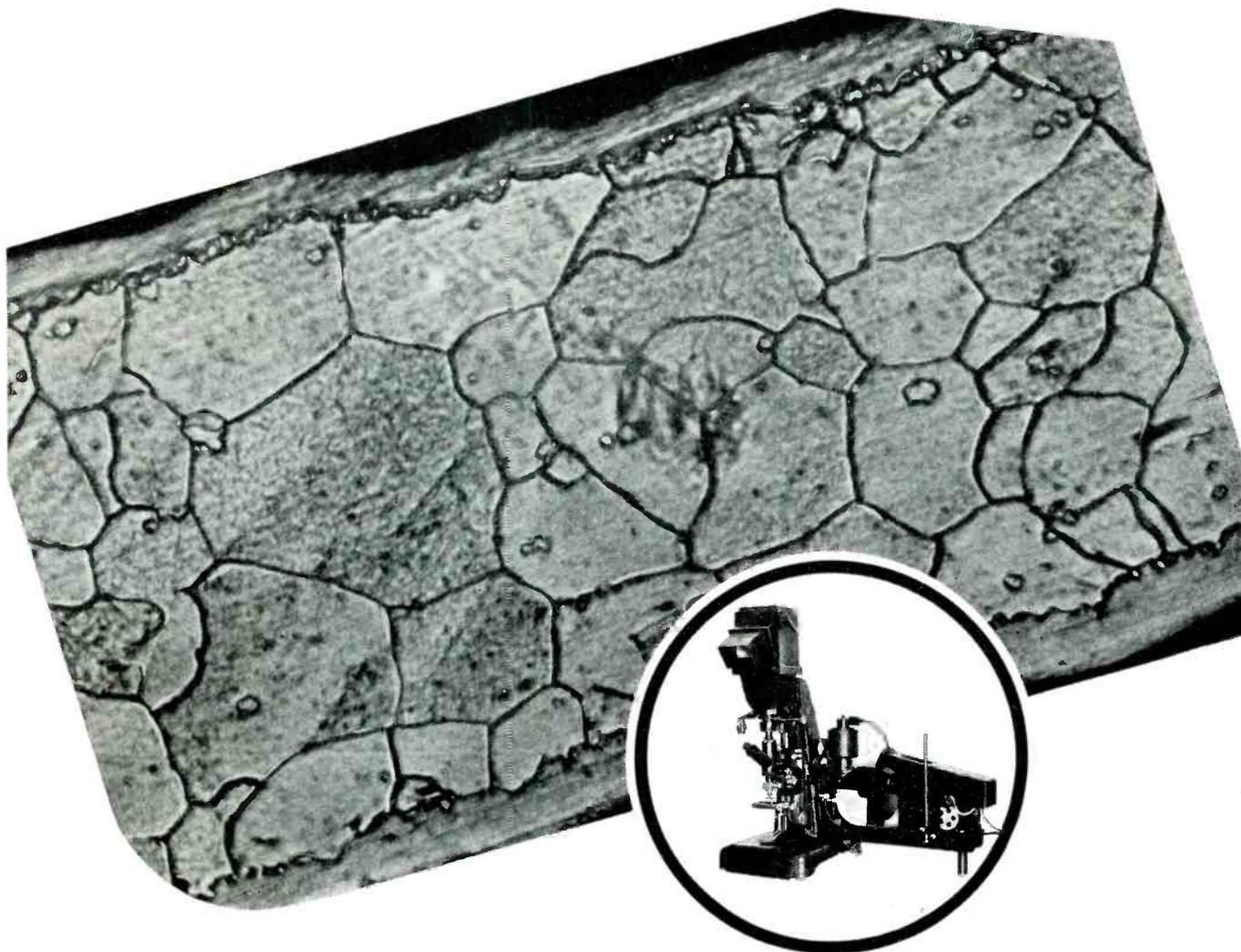


CROSLY 36AM This "Glamor-Tone" table type battery operated radio with 4 tubes has a 5½-inch PM speaker, gold-glow, easy-to-read dial. Cabinet of selected sliced walnut veneer with attractive speaker grille. Measures 8½ x 18¼ x 8½ inches. The Crosley Corp., Cincinnati, Ohio.

PARAVOX V20 Hearing aid product, amazingly small in size, is finished in deep ebony with gold trim. It weighs, excluding batteries, slightly over 3 ounces. Fingertip control. It is non-directional, voices can be heard and identified from behind or side. Small enough to fit comfortably in the palm of the hand. Paraphone Hearing Aid, Inc., 4300 Euclid Ave., Cleveland, Ohio.

Write for Catalog — Section 920 College Ave.,

READRITE METER WORKS
BLUFFTON, OHIO



DAILY DEFENSE MAP...

THE picture you see above is not an aerial view of a battlefield. It is a map showing the structure of a piece of metal five one-thousandths of an inch thin!

Sylvania engineers regularly map the structure of metals and wires which—if they pass Sylvania's rigid tests—will be used to make the world's finest radio tubes.

Through the use of the metallurgical microscope shown in the inset, greatly magnified photographs are

taken. By studying the structure thus exposed, Sylvania engineers determine the special characteristics of each batch of metals. Flaws which would be unnoticed by the unaided eye stand out as plain as warts on a nose.

Such a painstaking "defense measure" as mapping the structure of metal and wire 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.

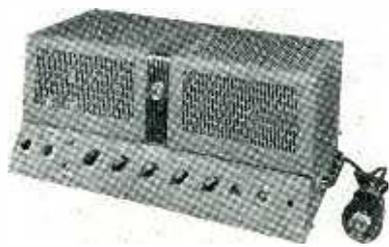
SYLVANIA

SET-TESTED

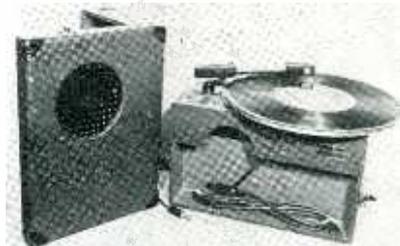
RADIO TUBES



ALSO MAKERS OF HYGRADE LAMP BULBS AND MIRALUME FLUORESCENT LIGHT FIXTURES



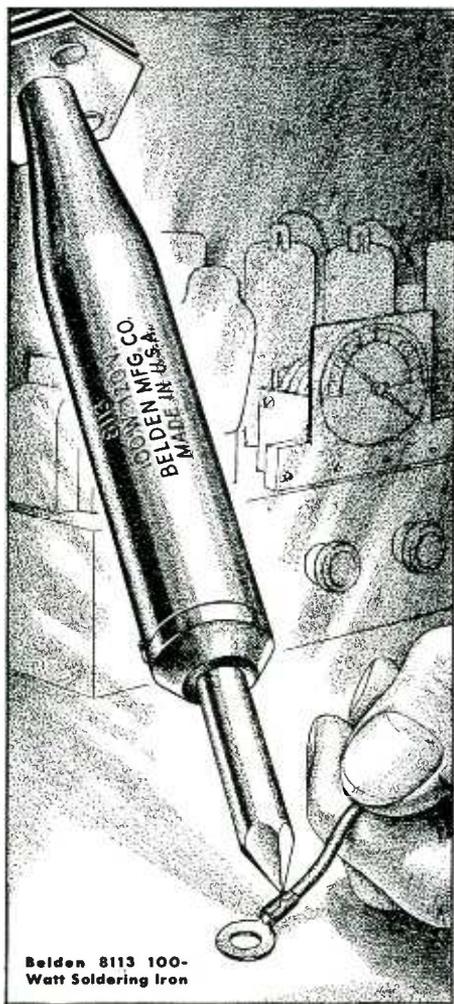
MASCO MAC 14 Portable fourteen watt sound system for 6 volt dc and 110 volt ac operation. Input for mike and phono; electronic mixing. Complete with mike, tubes, speakers, cables and case. List \$116.00. Mark Simpson Dist. Co., Inc., 16 Hudson St., New York, N. Y.



SPEAK-O-PHONE T16 Portable record player for transcription playback. Employs 16-inch turntable, amplifier, 8-inch speaker, professional type pickup and a.c.-d.c. motor with two speeds, 78 and 33 r.p.m. List \$140.00. Speak-O-Phone Recording and Equipment Co., 23 West 60 St., New York, N. Y.

RCA MI-12214 A low priced 50-watt amplifier complete in one unit. This model incorporates reverse feedback circuit and automatic bass compensation for phono use. Two microphone and two phono inputs, one high impedance, one low impedance provided. RCA Mfg. Co., Camden, N. J.

DON'T GO "HAYWIRE"



Belden 8113 100-Watt Soldering Iron

Make a Good Connection

Your wire and cable replacements should live up to your service requirements—and give original equipment performance. Belden wires are the result of long years of close cooperation with the industry—constant research in modern Belden laboratories. They will protect your wiring jobs—and you'll find wide customer acceptance through Belden's big national consumer advertising. Be sure of good connections . . . Specify Belden when you order from your jobber.

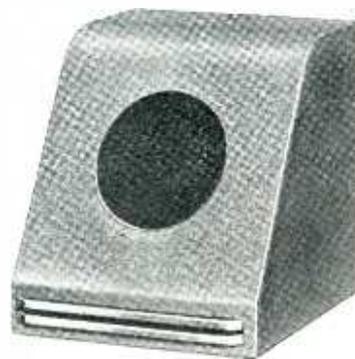
Belden Manufacturing Co.
4697 W. Van Buren St., Chicago

Go Belden

FOR EVERY RADIO REQUIREMENT . . . Antenna Systems—Aerial Wire—Power Line Filters—Hook-up Wires—Coaxial Cables—Transmission Line Cables—Microphone Cables—Communications Systems Cables—Magnet Wires—Resistance Cords—Terminals—Auto-Radio Wires



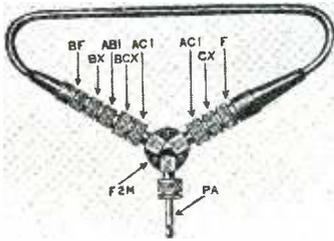
PRESTO 400A This blower system eliminates one of the commonest hazards of instantaneous recording. It directs a tiny blast of air across the surface of the disc just behind the cutting head which throws the waste thread to the center of the disc. The blower consists of an electric motor direct coupled to a positive pressure air pump. It includes a 6-foot rubber hose with metal nozzle. Price \$75.00. Presto Recording Corp., 242 W. 55th St., New York, N. Y.



INSULINE Producing a completely new and improved line of metal cabinets and amplifier chassis. They are all streamlined and all embellished with chrome moulding and chrome air-gate ventilators. Finished in marine gray ripple enamel. Insuline Corp. of America, 30-30 Northern Blvd., Long Island City, N. Y.

SOLAR CE Capacitor Exam-eter, just developed by this company, measures condensers both in and out of circuit. Tests for shorts, opens, high r-f impedance and intermitments. Operates as a megohm meter and milliammeter. Measures power factor. Both dc-ac vacuum tube voltmeter. Solar Mfg. Corp., Bayonne, N. J.

F-M needs You— and You need this Complete Line



SELECTAR Here is a universal Bruno connector kit, assembled for servicing convenience. It consists of 10 gadgets which will save time in making speaker, mike, and chassis connections, also for splicing and phone-jack adjustments. Selector Mfg. Corp., 30 West 15th St., New York, N. Y.



AMER. MICROPHONE This unit has an easily accessible external adjustment. A smooth change from a communication-type response, with a cutoff below 500 c.p.s., through a flat response to an augmented bass. Complete with removable baffle and 12½-ft. cable. Available in high and low impedances. Model VR2, in 30-50 ohms lists for \$32.50. American Microphone Co., Inc., 1915 S. Western Ave., Los Angeles, Calif.



MALLORY A complete line of noise filters has just been introduced by this company. Included in the group is the type ZAI, a capacity and inductance combination using house wiring as an antenna. The line also comprised heavy duty filters in standard cut-out boxes, for use with equipment that is permanently connected to the power line or which draw a minimum of 10 amperes or more. P. R. Mallory & Co., Inc., Indianapolis, Indiana.



RADIO CITY PROD. Model 803 set and tube tester includes ranges of 0-10/50/500/1000 for dc (at 1000 ohms-per-volt) and for ac and output voltages, d.c. current ranges are 0-1/10/100/1000 ma., and 0-10 amperes, also ohmmeter ranges, and decibel ranges. Radio City Products Co., Inc., 88 Park Place, New York, N. Y.



The immediate future of Frequency Modulation lies in the energetic efforts of the Radio Jobbers, Dealers, and Servicemen—the technical men who know what it's all about. Here, then, is YOUR opportunity to get in on the ground floor of this promising new phase of the radio industry!

In order to do this successfully, however, YOU must be prepared—with full information on the subject—with a complete line of sets and parts to meet every demand.

Meissner places this material "right in your lap." The beautiful, walnut-finish Table Model F-M set shown is 22¾" wide, 12¼" high and 11" deep. Has full-quality, 8" P-M dynamic speaker; five-position tone control provides choice of output response. May also be connected as a converter to feed the audio system of a larger receiver if desired.

CONSOLE MODEL

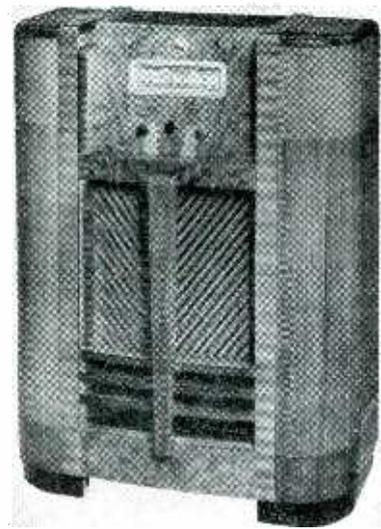
For highest-quality, noiseless, static-free reproduction of F-M Broadcasts, this big Console Receiver is the finest obtainable. Its powerful, 12-tube chassis, with built-in super-sensitivity, together with a special high-fidelity P-M dynamic speaker in the large bass-reflex tone chamber, assure the discriminating listener of maximum satisfaction. The walnut-finished cabinet is 41" high, 30¼" wide and 15½" deep. Rich, two-toned veneers provide a beauty seldom seen except in the highest-priced receivers.

CHASSIS AND PARTS

The same 12-tube chassis used in both of the receivers described above, is available separately for use in "Custom-Built" installations. Requires 110 watts at 117 volts, 60 cycles; 6 watts undistorted output; 170-kc selectivity; 10-mv sensitivity. Special 4.3-mc I-F and Discriminator Transformers, as well as complete RF-Mixer-Osc. Tuning Assembly, covering 42 to 50 mc, are also available for those who build their own.

FREE SALES HELPS

New counter literature describing the Meissner F-M Receivers is now ready. Order a quantity now and be prepared for early fall sales. New 1941 General Catalogs will be ready soon. Write at once for your supply.



NEW 1941 CATALOG FREE

Every Dealer-Serviceman needs this up-to-date listing of the entire line of Meissner receivers, kits, replacement coils and hundreds of other daily requirements. Send a postal card TODAY for your free copy.

ADDRESS DEPT. R-9



SO THEY ORDERED 150 MORE! RCP TEST INSTRUMENTS

"Your product", writes Hollywood Radio & Television Institute, "has been of the finest quality, and your service the best we have received from any manufacturer. . . Enclosed please find our order for 150 RCP Analyzer Units."

The Hollywood R. & T. Institute teaches technical Radio. And so it is extremely important, as President C. H. Mansfield says, "that the test equipment we use measures up to the very highest standards." Here is proof of RCP Test Equipment dependability. And fresh proof that it pays—in volume sales and bigger profits—to stock the equipment experts choose.

RCP Combination Tube & Set Tester—Model 803

Portable "Service shop" tests all tubes, including latest miniatures, bantam, Jr's., etc., for quality, hot interelement shorts and leakage (each element), noise. Tests each section of multi-purpose tubes.

Multi-Tester functions include measurement ranges: DC and AC volts—0/10/50/500/1000; DC ma.—0/1/10/100/1000; DC amps.—0/10; Ohms 0/500/5000/1 meg./10 megs.; DB-Four ranges from —8 to +55; Output—same as AC volts. "Rolindex" finest mechanical roller tube chart, built in. Complete, ready to use with test leads. Dealer Net Price... **\$32.95**



Model 310 TUBE TESTER with Rotary Selector Switch

An all-quality instrument completely modern in circuit design, operation and efficiency. Has newest "Rolindex" roll-type tube test charts. Insures smooth, positive, speedy operation. Tests every type tube with separate test for noise, hum, intermittents and bad connections. Spare socket for future developments. Hot interelement short and leakage test between all individual elements. Line voltage correction over range of 105 to 135 volts directly indicated on D'Arsonval meter. Far more accurate and reliable. Dealer Net Price... **\$21.95**

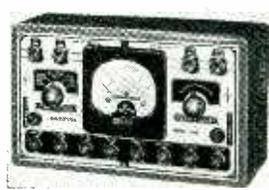


"25-in-1" RCP Model 446 Multi-Range Tester

3 inch square D'Arsonval meter accurate within 2%

DC voltmeter 0/5/50/250/500/2500
DC milliammeter 0/1/10/100/1000
DC ammeter 0/10
AC voltmeter 0/10/100/500/1000
3 range ohmmeter 0/500/100,000/1 meg.
Meter sensitivity 1 Milliampere or 1000 ohms per volt.

It's the equivalent of 25 complete instruments. In a class with testers selling for twice the low RCP price. Selector switch operated, complete with batteries. Dealer Net Price... **\$9.95**



RIGHT NOW WRITE for Catalog No. 122. Discover the profit-possibilities in RCP's dependable Test Equipment for every need and every purse.

RADIO CITY PRODUCTS CO., INC.
88 PARK PL. NEW YORK, N. Y.



YOU HAVE TO "KEEP UP" THESE DAYS!



A service man has to "keep up" with the new developments these days, if he wants to hold on to his business. These books will give you an understanding of subjects vital to the success of your business today! Start now! Turn your spare time into usable, money-making knowledge.

SERVICING BY SIGNAL TRACING

By John F. Rider

Use the system of servicing which is proved and endorsed—fastest—most modern—the system you can apply to all receivers regardless of age, type or make. Servicing by Signal Tracing operates independently of every limiting factor heretofore encountered. In this new book you learn how all receivers are brought to a common servicing level. You learn how components receive a functional check while the circuits are in an operative condition. Over 300 pages—hard covers—only \$2.00.

Rider's Latest Book FREQUENCY MODULATION

The most talked of subject of the moment. Rider offers this introduction to frequency modulation with special attention to F-M receivers and the problems they will present to the serviceman. Get this now—be ready. 136 illustrated pages—only \$1.00.

THE CATHODE RAY TUBE AT WORK

By John F. Rider

This is the most complete and practical book ever written on the subject—the only one prepared especially for the radio serviceman. New applications of the cathode ray tube during the past five years require that servicemen know its operation. 336 pages—over 450 illustrations—\$2.50.

AN HOUR A DAY WITH RIDER BOOKS

On Resonance and Alignment . . . On Automatic Volume Control . . . On D-C Voltage Distribution in Radio Receivers . . . On Alternating Currents in Radio Receivers. 60c each.

NEW! By John F. Rider OSCILLATOR AT WORK

Get your money's worth—KNOW! This new book tells all about ALL oscillators. Explains theory by means of simple illustrations, diagrams and curves. Gives you practical facts. Get your copy TODAY! 256 pages—illustrated—\$1.50.

AUTOMATIC FREQUENCY CONTROL SYSTEMS

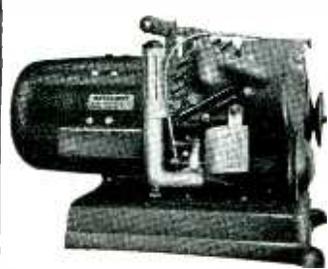
With Automatic Frequency Control Circuits in most new higher priced models, knowledge of "AFC" means money in your pocket! Learn the practical facts, from these easy-to-understand explanations. Get your copy today. Cash-in on profitable "AFC" work. Hard covers—144 pages—\$1.00.

JOHN F. RIDER PUBLISHER, Inc., 404 Fourth Ave., New York City
Export Div.: Rocke-Int. Elec. Corp., 100 Varick St., N. Y. C. Cable: ARLAB

Read RIDER BOOKS

110 VOLTS AC ANYWHERE!

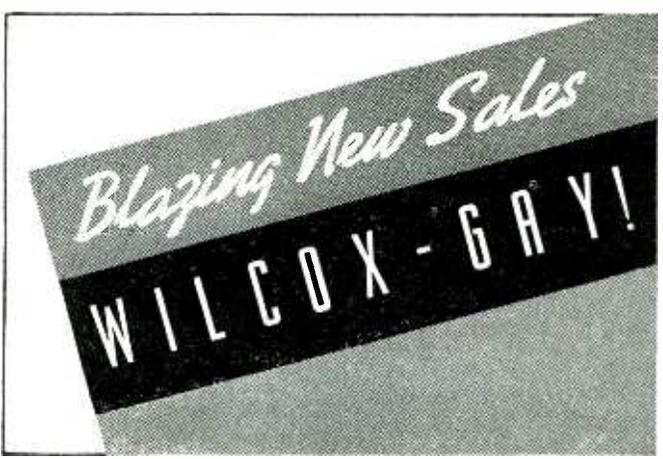
With KATOLIGHT. Furnish standard 60-cycle AC for operating sound truck equipment, AC radios, transmitters, flood lights, motors, moving picture projectors, etc.



A complete line of light and power plants ranging up to 10,000 watts capacity. Also 6, 12 and 32 volt battery charging plants. Diesel plants, rotary converters, and frequency changers.

List prices \$50.00 and up.
Jobbers and Dealers Write For Latest Catalog

Kato Engineering Company
Front and Elm Streets
MANKATO, MINN., U.S.A.



On the Newsfront

Color Television Tested

Press sees experimental CBS equipment in "fourth of five laboratory stages"

NEW YORK—Color television, said by Dr. Peter C. Goldmark of the Columbia Broadcasting System to be in the "fourth of five laboratory stages", was demonstrated to the Press here September 4.

Program material consisted of Kodachrome home-movie film (direct-pickup involves somewhat greater difficulty) transmitted via land-wire, the received pictures closely approximating those obtainable when optically projecting such film. (CBS execs said that successful transmissions had been made by radio within the city. Questioned concerning color synchronization, they said air tests so far had relied upon operation of transmitter and receiver from a common 60-cycle electric power line but that there was no insurmountable difficulty ahead regarding synchronization, too, by radio).

The system involves the use of a motor-driven disc with inset colored glass filters, revolved between subject to be televised and pickup camera. Whirling filters break individual pictures up into three separate ones, each a fundamentally necessary color. These three "color separations" are transmitted in the time ordinarily taken to transmit one black-and-white television picture "frame."

The three individual color pictures comprising a "frame" arrive separately at the distant receiver, appear in normal black-and-white on the receiver's conventional cathode-ray screen. But as they appear a whirling motor-driven disc

placed between the cathode-ray tube and the eye at the receiver and synchronized with the disc at the transmitter synchronously pops into place and the eye sees the "color separations" through the proper colored glass filters. Successive colors are flashed on the tube-end so fast that they blend together insofar as the eye is concerned and form a full-color whole, very much as separate color "cuts" eventually form a full-color photo in the printing business when properly put together on paper.

Aside from the necessity for the motor-driven disc at the receiver it is said that only minor changes are required in the circuit of a black-and-white television to make it receive color. And, without any changes at all, it will continue to deliver black-and-white pictures even where colored program subjects are transmitted.

RCA Announces Expansion

CAMDEN—The RCA Manufacturing Company has completed plans for enlarging its plant at Indianapolis, Ind., by the addition of one building unit of 100,000 square feet of space, the first of a total of some 400,000 square feet which the company will need to meet requirements under the National Defense Program for products now manufactured at this plant.

The Indianapolis division was opened in 1936 for the manufacture of Phonograph recording and reproducing equipment for the motion picture industry, p.a. equipment and radio broadcasting station equipment. Since that date production of glass radio tubes has been started here and in 1939 a new addition was opened for manufacturing records.



CROSLY APPOINTS THREE—R. I. Petrie, v.p. and g.s.m., The Crosley Corp., announced the appointment of the following three new division sales managers for the western, southern and eastern sections of the country. Shown in order *B. T. Roe*, with headquarters in Chicago, *S. D. Camper* in Atlanta and *N. C. McDonald* with offices in New York

NRPDA Fall Drive Starts

Meetings held in many cities.

Standardized accounting proposed

NEW YORK—From the offices of the National Radio Parts Distributors Association at 65 Park Terrace East, comes word that a meeting was held for Washington, Maryland and Eastern Pennsylvania jobbers September 8 and another in Boston September 17. Additional meetings are scheduled in other areas where formation of territorial Chapters is contemplated.

Important topic discussed at meetings already held was the proposal that member jobbers formulate and adopt a uniform system of accounting. A simple standard Income and Expense form was submitted and interchange of percentage figures suggested.

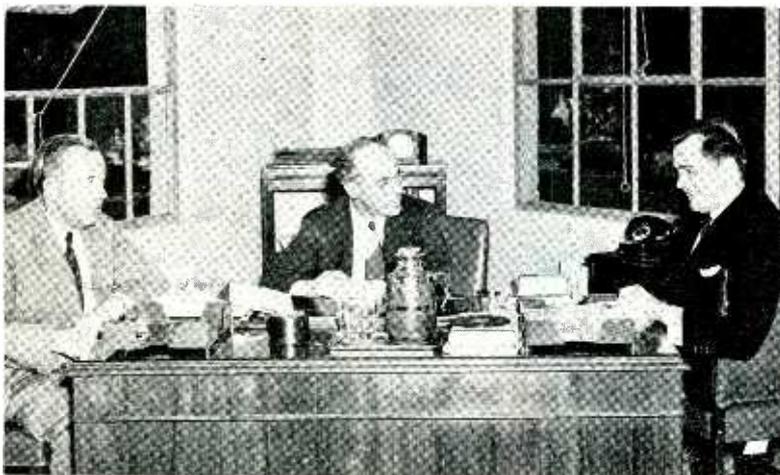
N-U and Erwood Promote Sound Week

To furnish promotional material

NEWARK—The National Union Radio Corporation, in conjunction with the Erwood Sound Equipment Company, has organized a "National Sound Week" promotion September 23 to 28.

Cooperating distributors have agreed to maintain, during the week, a representative display of sound equipment and accessories. They will also make special personnel provision for demonstrating.

N-U is furnishing complete display and sales promotion material, including admission cards printed with distributors' names and space for dealer imprint. Erwood is simultaneously offering a 28-watt mobile sound system and an automatic record-changer to the two dealers bringing in the oldest nationally-known amplifiers during the drive.



COLUMBIA EXECS CONFER—Pictured here, left to right, *Paul Southard*, sales manager; President *Edward T. Wallerstein* and *Pat Dolan*, sales promotion director talking things over at recent meeting of district mgrs.



INDUSTRY HONORS INVENTOR—August 26th, "National Radio Day" was the occasion for a banquet by the Chicago members of the radio industry to pay homage to Dr. Lee De Forest on his 67th birthday. E. S. Riedel, Raytheon g.s.m. is shown presenting Dr. De Forest with a miniature tube watch charm and chain

S-C Starts Ad. Campaign

Stress Advantages of FM Receivers

ROCHESTER — Stromberg - Carlson starts its fall campaign of national magazine advertising with a full page advertisement in *The Saturday Evening Post* of September 14th. Other nationally known magazines will be used in a consistent schedule planned to extend up to the Christmas holiday season.

Ads stress that in the opinion of orchestra conductors, musicians and radio experts, FM brings incomparable tonal quality. They emphasize in headlines the no static-no station interference features. Described in the initial advertisements of the campaign is the Stromberg-Carlson key model 535M with labyrinth and Carpinchoe speaker, standard, short-wave and FM bands and other advancements. Also featured is the 535PS automatic radio-phonograph which has all the features of the above set plus facilities for shifting and playing 10 or 12 inch records.

With Pfanstiehl Compliments

WAUKEGAN—Each visitor to the Pfanstiehl Chemical Co., Needle Division booth at recent National Musical Trades convention at Chicago received one of its new \$1.00, home 4000 play phonograph needles with the compliments of the company.

Sales Manager Bill Henninger states that any convention guest who failed to get his needle may still get one by writing to him c/o Pfanstiehl, Waukegan, Ill.

Bibb New Majestic D.S.M.

CHICAGO—Harry B. Bibb, identified with the radio-music industry for over twenty years and well known in the trade, has been named a division sales manager of the Majestic Radio & Television Corp.

Radio Exports "UP"

WASHINGTON—Increases in radio exports to Latin America and other non-belligerent countries more than offset the losses of radio exports to European markets. Statistics on exports of American radio, as compiled by the Radio Manufacturer's Association, for the fiscal year ended June 30 and including the latest June report of the U. S. Bureau of Foreign and Domestic Commerce, showed a fiscal year increase of 4.6 percent in the total value of American radio exports.

Total radio exports during the last fiscal year were \$23,446,543, an increase of \$1,028,638 above the 1938-39 radio exports of \$22,417,905. All classes of radio exports except loud speakers showed an increase. In dollar volume, exports of tubes increased 3.6 percent, component parts 6.1 percent, and transmitters 37.1 percent, but exports of speakers during the last fiscal year decreased 24.6% compared with the previous year.

RCA Promotes Brunet

CAMDEN—Meade Brunet, well known figure in the radio industry for twenty years, has just received appointment as manager of the Engineering Products Division in addition to the position as manager of the Company's Washington office. James L. Schwank, former manager of this division has been transferred to the office of F. R. Deakins, vice-president in charge of Special Products.

Emerson Provides Tube Kit

NEW YORK—The Emerson Radio & Phonograph Corp. has just introduced through its distributors a radio tube service kit. It contains 50 tubes and consists of the 20 types very extensively used in current models of most radio sets. Sold as a package unit it pro-

vides the dealer and his service department with an assortment of tubes that are required daily in the majority of service jobs.

Philco Announces New Transitone Line

PHILADELPHIA—Philco Radio & Television Corp. has just introduced a new line of Transitone compact radios. Comprises six models with the leader PT25 featured in advertising. A set which will be strongly promoted as a "personal" radio is the model PT27. A special cooperative dealer campaign will be utilized as a means of promoting public consciousness of Transitone sets.

Replacement Parts Warranty

WASHINGTON—President Knowlson of RMA has appointed a special committee headed by Director Ben Abrams of New York as chairman, to consider development of an RMA warranty of replacement parts. While the RMA has an official recommended warranty, generally used throughout the industry, covering defective products and workmanship, the new recommended warranty under consideration would provide a definite period of years for set manufacturers to keep replacement parts in stock for their various models.

Luzerne Servicemen Elect

WILKES-BARRE—Newly elected officers of the Radio Servicemen's Association of Luzerne County are: Anthony Yeninas, president; J. Austin Renville, vice-president; Edward Buckman, secretary; Sam Keithline, recording secretary; Robert Hooper, treasurer.

Directors include C. Foster Hick, Edward Nawicki, Edward Shuster, Spencer Eddy, Edward Tischler and Joseph Novack.



ADMIRAL DIST.—Officials of Jenkins Music Co., St. Louis, Mo. distributor are shown grouped around its new floor display. Left to right; Frank Flynn, Jim Sumner, Jess Lane, sales rep. Goldstein, Ken Gillespie and Clarence Amos



THEY KNEW I. WALTON?—*Phil Krumm*, Sentinel Radio Corp.'s P. A. and *Jack Williams*, cabinet manufacturer of Niles, Mich., proudly displaying their day's catch, hooked on a recent fishing trip at Wolf River, Wis.

G-E to Market Deluxe Sets As Special Line

NEW YORK—To meet the demands of the market for deluxe radio receivers, the General Electric Co. has announced that it will shortly market such a special line of receivers. Details and methods of distribution will be announced at a later date. Fred. A. Ray who has been regional sales manager for the east, has been appointed sales manager for the new line.

Westinghouse Launches Fall Drive

MANSFIELD—Plans for an aggressive fall selling campaign, backed by the largest year-end advertising program in the history of the Westinghouse Merchandising Division have been announced before company distributors assembled in convention here.

Feature of the intensified appliance promotion effort will be nation-wide distribution of a new game that will be obtainable free of charge through Westinghouse dealers.

RMA Fall Meeting

WASHINGTON—The regular fall meeting of the RMA Board of Directors, together with several committees, is being planned for Tuesday, October 8, place Hotel Roosevelt, New York City. Another meeting of the Executive Committee is scheduled for Tuesday, September 10, at the Stevens Hotel, Chicago.

New RPSC Officers Elected

LOS ANGELES—Bert Knight is the new president of Radio Pioneers of Southern California. Herb Bell was simultaneously elected vice-president, Jack Wagner, 2nd vice-president, Jack Perlmut secretary and treasurer.

Adopts New Title

CHICAGO—The Webster Company, 5622 Bloomingdale Ave., Chicago, Ill., announces the adoption of "Webster-Chicago Corporation" as its new corporate title. The change was made to save confusion in the mind of the public due to the fact that the product carried the name "The Webster Company" while the trade popularly referred to both the product and company as "Webster-Chicago."

S-C Names Canadian Mgr.

ROCHESTER—Ralph A. Hackbusch, since 1930 chief engineer and factory manager of the Stromberg-Carlson Tele-

phone Mfg. Co. of Canada, has just been appointed general manager of this Canadian firm.

N. W. Baldwin, former general manager, goes to the parent company's plant in Rochester to take charge of army equipment production for the U. S. Government.

Victrola Week Celebrated

CAMDEN—RCA-Victrola celebrated "Victrola Week" September 9-14, opening with heavy national advertising.

Dealers and distributors all over the country tied in by staging a special Victrola demonstration effort, installing special window displays, mailing consumer broadsides.

SOUND X/TRA TUBES

FOR HEAVY DUTY AUDIO WORK

Insure

PEAK PERFORMANCE

IN

AMPLIFIERS,
PUBLIC ADDRESS
SYSTEMS, SOUND
PROJECTORS,
INTER-OFFICE
COMMUNICATING SYSTEMS,
COIN OPERATED REPRODUCERS

Can Be Used to

REPLACE ORDINARY TUBE
OF SAME TYPE NUMBER

For Better Reproduction



DEMONSTRABLY BETTER

- ★★★ NON-MICROPHONIC
- ★★★ LOW-HUM LEVEL
- ★★★ UNIFORM CHARACTERISTICS
- ★★★ NO MATCHING NECESSARY
- ★★★ LONG LIFE AT FULL OUTPUT

Ask Your N.U. Jobber or Write
Copyright

NATIONAL UNION

57 STATE ST., NEWARK, N. J. *Radio Corp.*

**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

G-E Radio Conclave

NEW YORK—The contract has just been signed between the officials of the General Electric Co., Seaboard Railway and the Fleetwood Hotel in Miami Beach, Fla., for the ten day G-E dealer conclave to be held at Miami March 19 to 29th, 1941. Close to 600 radio and television dealers from the northern states are to be the guests of General Electric company.

Wincharger's New VP

SIoux CITY—Commander E. F. McDonald, Jr., president of the Zenith Radio Corp. announces the appointment of Robert F. Weinig as vice president and general manager of its subsidiary, the Wincharger Corp. of Sioux City, Iowa. Weinig has been in charge of farm radio sales for Zenith and has a wide acquaintance among distributors and dealers in the farm field also has broad business experience as a manufacturer, distributor and sales executive.

Statistics and Surveys

WASHINGTON—The RMA statistical service for association set and parts manufacturers is to be supplemented by a special statistical service for RMA tube manufacturers. The executive committee of this body also has under consideration cooperative measures to survey radio set advertising and improve advertising standards.

Philco Farm Radios "Up"

PHILADELPHIA—John F. Gilligan, manager of specialty division Philco Radio and Television Corp., reports sales of farm radios are more than 50 percent ahead of the total at this time last year.

As a direct merchandising effort, Philco dealers are being enlisted to exploit the possibilities of their state and county fairs. Special broadsides have been made up outlining suggestions for exhibits, stunts and premium offers. This latter promotion is designed not only for the benefit of farm radios but also to push the specially designed Philco electric refrigerator for the farm.

Universal Ups Griffin

LOS ANGELES—R. L. Griffin, for the past eight years in charge of traffic and purchasing for the Universal Microphone Co. of this city, has been appointed sales manager for the southern area.

Crosley Elects G. E. Smith

CINCINNATI—G. E. Smith has been named a vice-president and treasurer of the Crosley Corporation, was formerly connected with such firms as Gimbel Bros. in Philadelphia, Bud Wheel Co., Nash-Kelvinator and, more recently, United Wall Paper Factories.

RSA Debate

BOSTON—The Radio Servicemen of America met in the Roxbury Meeting Hall on August 20th and debated the

question "Servicing by Signal Tracing versus Servicing by Signal Injection." The discussion was accompanied with a demonstration of a chanalyst, volttohmyst and an oscilloscope.

Auto Antenna Tie-in

BROOKLYN—The J. F. D. Manufacturing Co. announced that it has purchased all moulds, dies, patents, raw and finished material for the auto antennas heretofore made by the Star Machine Manufacturers, Inc. They will be marketed under the name of J.F.D. "Star."

Columbia Adds Portable Phonos

NEW YORK—The Columbia Recording Corp. announces its entry into the phonograph field. Producing both portable and table models. The former features a detachable speaker which can be hung on the wall for better reception when used in the home.

Sylvania Ups Jones

EMPORIUM—Hygrade-Sylvania Corp. has just named Walter R. Jones director of commercial engineering, radio tube division. The company's coast-to-coast service schools will be conducted by him and George C. Connor of New York.

Books On Review

UNDERSTANDING RADIO by Herbert M. Watson, Herbert E. Welch and George E. Eby, 603 pages, Publisher McGraw-Hill Book Company, Inc., New York, N. Y. Price \$2.80.

A guide to practical operation and theory. Covers the radio field for the newcomer. Describes basic radio circuits and provides a working knowledge of the principles that underlie radio. The subject matter of the book is arranged in the order, in which the constructor would need it for practical operation.

Distribution News

ADMIRAL—Appoints the following firms to their ranks of jobbers: *Auto Equipment Co.*, Denver, Col.; *Auto Electric Service Co.*, Manchester, N. H.; *Boetticher and Kellogg Co.*, Evansville, Ind.; *Herrlinger Dist. Co.*, Cincinnati, Ohio; *Ludwig Hommel Co.*, Pittsburgh, Pa.; *Jenkins Music Co.*, St. Louis, Mo.; *Milhender-Afes Co.*, Boston, Mass.; *Penton Shepard Co.*, Miami, Fla.; *Sunset Electric Co.*, Seattle, Wash.; *Thurrow Radio Dist.*, Tampa, Fla.; *Williamsport Radio Supply*, Williamsport, Pa.; *Zimmerman Wholesalers, Inc.*, Hagerstown, Md.

FADA—*Gulf States Distributing Co.*, 2212 3rd Ave., North, Birmingham, Ala., has been appointed exclusive distributor in the states of Alabama and Florida by Fada Radio and Electric Co., Inc. Also *The Witte Hardware Co.*, 704 and 706 N. Third St., St. Louis, Mo., as distributor for the normal Missouri and Illinois trading areas.

More FALL CAMPAIGN Aids

(Continued from page 39)

news . . . Wall charts include: One on "Pick-Me-Ups", another on table models, another on consoles and a fourth about farm instruments . . . Cardboard cutouts include: A clever "trick-fold" piece plugging the Overseas Dial, a small price card featuring the familiar dog and a third highlighting the "tone-guard" feature . . .

SETCHELL-CARLSON has just brought out a new illustrated catalog sheet picturing and describing new "Dor-Afone" combination radios and inter-call systems . . . Line-drawings on back show many practical uses of device . . . Designed for either domestic or industrial distribution . . .

SENTINEL has a large floor-type display stand containing room for nine portables and compacts . . . A new portfolio presenting the complete line . . . Electrotypes, logotypes and trademark electros . . . Envelope-stuffer folders, in colors, on electric sets, battery sets, portable sets . . . the "Sentinel News" . . . Complete ad-mat service . . .

SONORA aids, just off the presses, include the key promotional brochure entitled "Listen America", a swanky 20-page 8½ by 11-inch booklet featuring large pictures of all sets in the line, "humanized" full-color covers . . . Supplementing the brochure there will be rotogravure literature pieces about each set, size about 6 by 3-inches . . . Counter displays in process of preparation as we write . . . One counter display featuring the "Gem" model is to be extremely compact in size, circular background and two side-panels, accommodating three receivers of this type . . . Display cards also coming for "Candid" and "Brownie" miniatures, especially for the Fall campaign . . .

STEWART-WARNER presents an elaborate and impressive line of dealer aids . . . Deluxe 8-page Presentation Book, combination dealer-consumer selling story on complete line . . . Salesman's Pocket Manual containing 60-pages of illustrations and specifications, is spiral-bound . . . Concert Grand booklet, a selling piece with large photographic illustrations . . . Microphono booklet headlining home recorders . . . Deluxe model folder, envelope size for consumer mailing . . . Customized period cabinet folder . . . Battery radio folder . . . Brochure of model specification sheets . . . Gloss photographic prints of all sets . . . Island type floor and window displays . . . Concert Grand display . . . Table model display

SELL MOBILE P. A. TO THE POLITICOS *this year . . .*



Advanced design in combination 6 volt-110 volt mobile equipment results in low hum and noise level, high overload capacity. Hear this new amplifier.



MR. JOHN ERWOOD
President

says "Model 1420-M mobile system—designed by the originator of mobile equipment has plenty of power with ample reserve capacity."

The Sound Engineers' biggest problem is stressed in all Erwood designs. Each item has been designed to insure sound satisfaction under various acoustic conditions and wide variations in power supply.

Write for your free copy of new catalog hot off the press.

Be sure to enter the ERWOOD Slogan Contest. \$350. in merchandise. Write for free information.

Erwood SOUND EQUIPMENT CO.

222 W. HURON ST.

CHICAGO, ILL.



The IDEAL REPLACEMENT UNITS at SENSATIONAL PRICES

The Models 80 and K "Even-Speed" Motors are self-starting, light weight motors, ideally fitted for the rising replacement market. They are interchangeable in mounting; quickly and easily installed, and fit practically all standard phonograph and combination models.

SPECIFICATIONS

"Even-Speed" Model 80 (illustrated above) is available for operation on 110 or 220 volt, 50 or 60 cycle source at 16 watts input in 8", 9", or 10" turntable sizes; Model K for 110 or 220 volt, 25 watt operation in 8" or 9"

turntable sizes. Both are exceptionally quiet in operation—no gears—smooth, positive friction rim drive. Excellent regulation characteristics for uniformity of table speed. Amply proportioned bearings—large oil reserves. Forced ventilation for cool operation. Slip type fan precludes possibility of injury. Mounting plate maintains correct turntable height regardless of mounting board thickness.

WRITE FOR PRICES

Mail a postcard today for prices and complete details on the "Even-Speed" Models 80 and K. Address Dept. C.

ALLIANCE MFG. CO., ALLIANCE, OHIO

HERE ARE THE

Facts

ABOUT GARRARD RECORD CHANGER DELIVERIES

You have heard rumors that Garrard Record Changer production has stalled, because Britain is at war. We want you to know that today Garrard, in America, has ample stocks. New Garrard models are arriving regularly. Garrard accepts their responsibility to you and intends to deliver as many Record Changers as you can sell. That's our answer to these rumors.

GARRARD IS YOUR GREATEST PROFIT OPPORTUNITY

No other Record Changer can match the smooth, silent, precision performance of Garrard. It's a luxury instrument, frankly designed for quality buyers — your "best" customers who demand the finest and will consider nothing less. Here lies your greatest profit opportunity. A rich, ripe market — easy to sell when you have what it wants, and consequently, easily sold on Garrard.

GARRARD GREATER PROMOTIONAL HELP

in national magazines and on your counters — at the point-of-sale — will make your selling job easier than ever. For complete information about the entire Garrard line — the facts on why it is your greatest profit opportunity — get in touch with your jobber or write direct to . . .

GARRARD SALES CORP.
296 BROADWAY, NEW YORK, N. Y.

GARRARD

*the world's finest
record changer*

THE CHANGER YOU WOULD WANT YOURSELF . . .

. . . Illuminated sign . . . War-news display kit . . . "Silver-dollar" labels . . . Gold lapel pins . . .

STROMBERG-CARLSON's latest dealer aids include . . . Folders in black and gold showing every radio and radio phonograph in the line, describing features, giving prices . . . A special circular on the firm's F-M models alone . . . A large, easel-equipped display card made to do a job when placed near a Labyrinth radio . . . Labyrinth "proving display" by which tonal-improving action may be physically demonstrated . . . A card upon which a Carpinchoe speaker and an ordinary speaker cone are mounted for direct comparison . . . Two complete sets of counter and window-display cards made to be used in groups of five . . . In addition, dealers are also to be furnished with new newspaper publicity releases in which they can insert their own names . . . Mats . . . And latest dealer aid addition will be a portfolio of single sheets, each one devoted to an individual set . . . One side to have a large picture, the other a detailed description of all mechanical and electrical features . . .

WESTINGHOUSE has a new full-line consumer folder, ideal for store distribution or mailing to the consumer . . . An orange-covered dealer catalog featuring "21st Birthday Radios", devoting a separate 8½ by 11-inch data sheet to each model . . . A new broadside showing cooperative newspaper and other advertising suggestions . . . Will shortly announce a new dealer display piece . . .

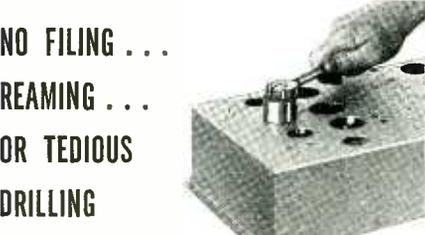
WILCOX-GAY was near ready at presstime with a complete portfolio outlining sales and merchandising program . . . Will include data on 1941 campaign newspaper mats, billboards, direct-mail and a series of three-point displays for floor or window use . . . Company also plans November window-dressing drive on Recordio . . .

PFANSTIEHL has a new modernistic counter display . . . Holds and attractively exhibits 36 home phono needles . . . Each needle individually packed in a glass-like disc . . .

PRESTO RECORDING has a convenient disc order card imprinted with business reply address on the reverse side . . . Also handy counter display to hold dealer stock . . . And provide orange and blue window posters . . .

COLUMBIA introduces new type giant easels on outstanding Green Label and Masterworks artists . . . in four colors, measure 2 x 3 ft. . . Also full size window displays and banners on OKEH records . . .

The EASY Way To Cut Holes In Radio Chassis



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. No tedious drilling, reaming or filing is necessary. 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 up to 2¼ inches can be cut in metal up to ⅝-inch thick in 1½ minutes or less.

Ten punches are available for cutting ¼, ⅜, 1, 1½, 1-5/32, 1-3/16, 1¼, 1⅝, 1½, and 2¼-inch holes. Each size consists of the punch for cutting the metal, the die for supporting it, and the cap screw for providing the drive action.

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

PREPAREDNESS!

National defense means preparedness! Profitable "sound" sales also need preparedness. Prepare now with Clarion superior sound equipment.

Wire or write for Clarion 5-point preparedness plan for increased P. A. sales and profits.

Clarion PUBLIC ADDRESS Equipment

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

**Four New TURNER
"CHALLENGER"
Microphones**

*Priced to Sell Fast!
Styled to Sell on Sight!
Engineered to Stay Sold!*



YOU GET FULL PROFIT

Model BX Crystal, List \$9.95

A rugged, dependable unit that's a honey for the money! Crystal impregnated against moisture and changes in barometric pressure. Built in wind-gag. Bronze enamel finish. Level -52DB. Range 50-5500 cycles. It'll move right out! With 7 ft. cable and diagrams.

BD DYNAMIC, List \$12.50, identical in appearance with BX. Write for details. Never before a good dynamic at this fast-selling price!

CX Crystal, with Cable Set, List \$15

Fine, brushed chrome finish mike, with removable cable set, using amphenol connectors. Fully protected and exceptionally free from feedback. For ham or veteran, it's big value for the money. With 7 ft. removable cable set and diagrams. Level -52DB. Range 50-7,000 cycles.

CD Dynamic, List \$16.50

Identical in appearance with CX. Engineered to give smooth response at all frequencies. Free from hum pick-up, and can take rough handling. Works indoors or out. Level -52. Range 50-7,000 cycles. With 7 ft. removable cable set and diagrams.

Write for Free Catalog

Crystals Licensed Under Patents of The Brush Development Co.

915 17th St., N.E.



Cedar Rapids, Iowa

JIM QUAM
Says

Pretty soon we'll be casting the ballots that will name the man to head this country for the next four years. I don't think it has ever meant so much to me as it will in November. This business of free voting is getting rather unique in the world.

A lot of people want to make up their minds about the candidates—they want to know who to vote for—and their radios will help them, as never before. It's time to get those wobbly speakers fixed up for your customers—and, for heaven's sake, don't try to repair small speakers! It's money out of your pocket every time. Do your customers a favor—replace with Quam—you'll make a profit and do your customers a favor.

QUAM-NICHOLS CO.
32nd Place & Cottage Grove CHICAGO 1674 Broadway NEW YORK

QUAM SPEAKERS

HYGRADE-SYLVANIA is distributing a large window poster designed especially for Fall campaign use . . . Three colors with eight individual cut-out pennant footballs that spell out the name Sylvania . . . Also window streamer in red, white and blue . . . A weatherproof, outdoor banner headlining Radio Service . . . And a pair of 1c government postcards following out the political election theme . . .

RAYTHEON has a large tube and carton centerpiece, 25 x 32 inches . . . A deluxe lighthouse flasher display in full color . . . A wall banner as background or window trim . . . Also a variety of mailing cards for promotional use . . . And a new Dealer and Service Help Folder . . .

RADIO CITY PRODUCTS announce a supplementary catalog No. 123 covering a number of new pieces of test equipment which has been added to its line for the 1940-41 season . . .

MEISSNER has a new vibrator replacement guide that includes dope on buffer condensers and a buffer replacement chart . . .

STANCOR release a power pack catalog No. 109-C, include technical data and operating graphs on each unit . . .

CLARION can supply a complete catalog of their sound equipment to interested parties . . .

ICA present a new catalog of their extensive line of parts, accessories . . .

GENERAL INDUSTRIES have a handy catalog of phono motors, recording assemblies and automatic record changes with full details and list prices . . .

HICKOK offer the new catalog No. 120, it lists test equipment and complete service panels . . .

UNIVERSITY wide range loud speakers and non-resonant weather-proof projectors are described in catalog No. U6 40 . . .

WEBSTER-CHICAGO illustrate the "Master" series of amplifiers, microphones, speakers and accessories in catalog No. 440 . . .

NATIONAL UNION offers personalized calling cards and out cards . . . window stickers of various sizes . . . battery replacement guide . . . And a new tube handbook . . .

SOLAR has just brought out a four-page folder entitled Model CE Capacitor Exam-eter outlining complete specifications on a new capacitor analyzer. . . . Also a new 6 page bulletin on A.C. motor starting capacitors for replacement purposes . . .

OHMITE

*Resistors for me
Everytime!*

"It's the best way I know to guarantee a job!" Yes, sir—servicemen, amateurs, engineers all know that Ohmite Resistors work for you day in and day out—dependably! They're standard, too, with designers and manufacturers of amateur, commercial and broadcast equipment. Next time, install "Brown Devils", "Dividohms", "Cordohms", or other Ohmite Parts. Get them at your Jobber.

MAIL COUPON NOW!

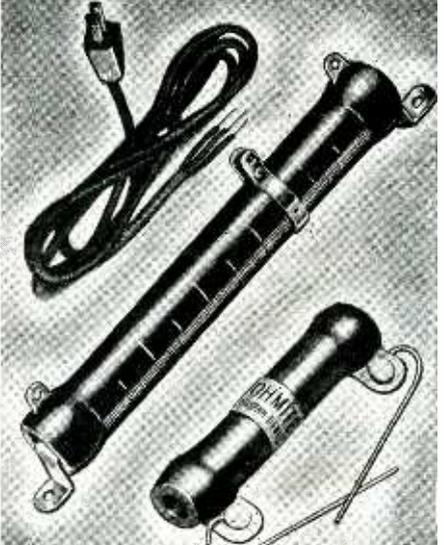
OHMITE MANUFACTURING COMPANY
4873 Flournoy Street, Chicago, U.S.A.

SEND FREE CATALOG 17.

Name

Address

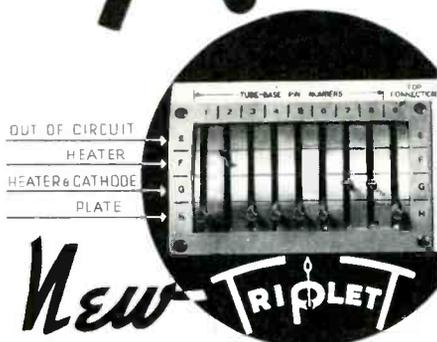
City State



OHMITE

RHEOSTATS RESISTORS TAP SWITCHES

Revolutionary Tube Tester



LEVER SWITCHING 4 NON-OBSOLESCENT "Quick Change" FEATURES

FOUR EASILY REMOVABLE SECTIONAL PANELS

- 1 If RED•DOT Lifetime Guaranteed Instrument is damaged accidentally return the separate panel on which it is mounted for replacement or repairs.
- 2 Speed Roll Chart complete with mechanism can be replaced when there are new factory releases by removing only four screws from front of panel.
- 3 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.
- 4 Flexible lever switching section and power supply in separate panel can be replaced to meet unanticipated tube changes.

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. This revolutionary lever switching development, with individual control for each tube element, takes care of roaming filaments, tapped filaments, plural cathode structures and dual function tubes—conclusively checks all present receiving tubes including Miniatures, Bantam Jr., and the new Midgets. Neon shorts test and noise test jack included. Gracefully proportioned wood case, natural finish. Beautiful two-tone brown-tan sloping panel; polished metal chrome trim with inlaid color. Model 1620, Dealer Net Price...\$37.84.



MODEL 1620
only **\$37.84**
DEALER NET PRICE



MODEL 1612
Dealer Net Price
\$29.84

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



Model 670
AC Ammeter
The little tester with the big 3" meter.
Dealer Net Price . . . \$9.00

(13 in the family)

MODEL 1270
11 Ranges Test All Household Appliances
Five Wattmeter Scale Ranges . . . Four Alternating Current Scale Ranges . . . Two AC Voltage Scale Ranges . . . 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



MODEL 1213
Dealer Net Price
\$22.00

Sockets to test all present day tubes including Bantam Jr., High Voltage Series including 117Z6G and 1.4-volt Miniatures. Ballast Tube Continuity Test . . . Foldex Tube Chart . . . RED•DOT Lifetime Guaranteed instrument.



Write for catalog on complete line of test equipment.

Triplet also manufactures electrical measuring instruments in more than 25 case styles.

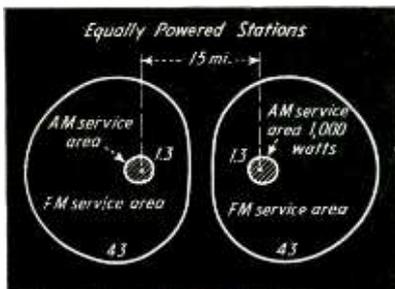
THE TRIPLET ELECTRICAL INSTRUMENT CO., Section 209 Harmon Dr., Bluffton, Ohio

Service Department

AM—FM Service Areas

Under certain conditions, the area of good broadcast service with frequency modulated (FM) transmission is 33 times greater than with amplitude, or present type, broadcasting, according to a report on tests and calculations announced recently by General Electric radio engineers.

The tests involved, first, simultaneous operation of two equally powered AM transmitters and, then, of two FM transmitters. All utilized the same frequency. In each test the transmitters were located 15 miles apart with level intervening terrain. Transmitting antennas were 300 feet above



the average ground level, while receiving antennas were 20 feet high.

Computations based on these tests reduced the areas involved to arbitrary unit values. These figures demonstrated that two 1000-watt AM stations have equal service areas of relatively small circular zones of 1.3 units each around both stations, while two FM stations cover a service area of 43 units—33 times that of AM!

If the power of one AM station is raised to 100,000 watts while the other remains at 1,000 watts, the area of the weaker is further reduced to 0.18 and that of the higher-powered AM station is increased to 12.5 units. With frequency modulation, this 100:1 power ratio results in a reduction of the lower-powered station area to only 3.7 units, while that of the stronger is increased to 190.

Even though the 1000-watt FM station is reduced to 3.7 units under such adverse conditions as a power ratio of 100:1, still the good reception area of this station is 280 per cent of that possible using AM transmitters and the most favorable power ratio of 1:1.

The tests also prove that receivers located between the service areas of two frequency modulated stations can get either station by means of a directional antenna. Thus vast AM interference areas can be converted into "discriminating" areas by the use of FM.

Resistance Coupled I-F

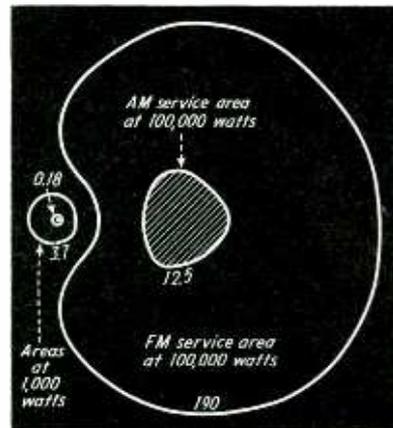
Since the signal output of a crystal microphone is much less than that of a crystal pickup manufacturers of home recording radio models have resorted to some novel methods of obtaining the additional amplification necessary for the crystal microphone.

Some employ an extra tube as a microphone preamplifier that does not operate on radio reception, while others have incorporated the extra stage into the radio circuit.

In the model O4BR-615A Montgomery Ward use a 6SJ7 as a microphone amplifier for recording and as a resistance coupled second i-f stage for radio reception. The values of the 5M ohm plate resistor, .0002 mfd coupling condenser and 50M ohm grid resistor shown would pass a broad band i-f signal but the double tuned first i-f stage effectively supplies only the 455 kc signal to this second stage.

The one megohm resistor in the grid circuit of the 6SJ7 is shorted out by the microphone switch to prevent audio operation of this stage during radio reception.

Output of the second i-f couples through the usual transformer to the



diode section of the 6SQ7, the plate sufficiently bypassed at the i-f frequency by the .0005 mfd condenser shown.

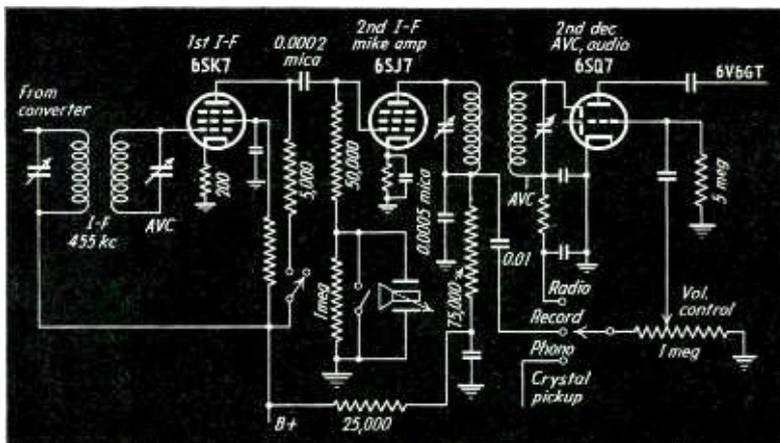
The radio recording position of the switch leaves these circuits unchanged but cuts in the magnetic cutter on the voice coil winding of the output transformer, the speaker then operating at reduced volume for monitoring.

Microphone recording, however, opens the plate circuit of the first i-f stage and swings the volume control to the .01 coupling condenser in the plate circuit of the 6SJ7, now operating at audio frequencies. The .0005 mfd i-f bypass has little effect at voice frequencies and the 75M ohm resistor becomes the plate load.

Opening the microphone switch allows the one meg resistor to operate as the audio grid input resistor to the 6SJ7, the 50M ohm resistor now isolating the capacitive reactance of the crystal microphone. Since the screen and cathode of the 6SJ7 are already bypassed for audio no change here is needed.

On record playback the volume control is switched to the crystal pickup and the triode portion of the 6SQ7 provides sufficient voltage gain to drive the 6V6GT output tube.

On radio recording the volume level may be judged by the speaker volume but the speaker is cut out on microphone recording.



THESE 18



TYPE D ALL-PURPOSE CONTROLS

Handle 60% to 75% of ALL REPLACEMENTS



...The All-Metal Cabinet is Included - AT NO EXTRA COST!

Now, for the first time, you can purchase a stock of only 18 Controls, 6 switches and 5 special, extra shafts . . . and be prepared for quick, efficient service on more than two-thirds of the radios you are called upon to repair!

You save time, because it is no longer necessary to order a control every time you need one! You simplify installations because IRC Type D All-Purpose Controls with their Tap-in Shafts are easier to install and can be used universally to replace midget size or larger, old-style controls! You save money—and you assure your customer of a first-class job!

Best of all, you pay only the standard price for the controls, switches and shafts. The handy new IRC Master Radiotrician's Control Cabinet, as illustrated, is included with your purchase at not one cent of extra cost.

The Cabinet itself is of all-metal construction. Attractively decorated, it is an asset to the appearance of your shop. It is 14½" x 7¾" x 4", weighs approx. 6 lbs. complete. IRC Control numbers are marked underneath each compartment so you can tell at a glance just what values should be reordered to keep your stock complete. Three drawers supply ample space for shafts, switches or other spare parts. Front metal cover snaps securely shut for carrying, or may be removed when Kit is used in your shop. The regular net price of the 18 Controls, 6 switches and 5 special, extra shafts is \$14.97—and the Cabinet is included for not one cent extra!

TAP-IN SHAFTS *Stay Put!*

Type D All-Purpose Controls are exact reproductions of the larger IRC Type CS Controls, with exactly the same design, exactly the same features and with the added convenience of Tap-in Shafts. Just pick the control you need, select the proper shaft, tap it into position in the cone-shaped control receptacle following simple instructions enclosed with each control, and the job is done. The shaft won't pull or vibrate loose—and you're sure the quality of the control is the highest money can buy.

HERE IS WHAT YOU GET!

The IRC Master Radiotrician's Cabinet is factory-packed with the following 18 Type D All-Purpose Controls, switches and special shafts of the most popular types shown by records to be capable of handling the big majority of all control replacements.

IRC Control Type No.	Resistance	Purpose	IRC Control Type No.	Resistance	Purpose
2-D13-133	500,000	A	1-D13-133 X	500,000	F
1-D11-116	10,000	B	1-DC13-133 X	500,000	G
1-D11-123	50,000	C	1-D13-137	1.0	A
1-D11-128	100,000	C	1-D13-137 X	1.0	F
1-D11-133	500,000	C	1-D13-139	2.0	A
1-D13-123	50,000	D	1-D13-139 X	2.0	F
1-D13-128	100,000	A	1-D14-116	10,000	H
1-D13-130	250,000	A	1-D16-119	20,000	B
1-D13-130 X	250,000	E			

- A—Tone or Audio Circuit Control
- B—Antenna Grid Bias Control
- C—Potentiometer Voltage Divider
- D—Tone Control
- E—Tapped for A. V. C.
- F—Tapped for Tone Compensation
- G—Friction Clutch Auto Radio Type
- H—Antenna Grid Bias of 2 Tubes

Switches: 5—No. 41 S.P.S.T.; 1—No. 42 D.P.S.T.
 Shafts: 1—Type B Auto Radio; 2—Type C with slotted, knurled terminals; 2—Type D with slotted, unknurled terminals.

Dealer Net on above controls, 6 switches, 5 shafts . . . **\$14.97**
THE CABINET IS INCLUDED FREE!

USE THIS HANDY ORDER FORM

INTERNATIONAL RESISTANCE CO.

401 N. BROAD ST., PHILADELPHIA, PA.

Attached is \$14.97, check, money order (or send C.O.D.) one IRC Master Radiotrician's Control Cabinet complete with the 18 Type D All-Purpose Controls, 6 switches and 5 Tap-in Extra Shafts as described. It is understood that, if this does not meet my full approval, I can return it in good condition for full credit within 5 days.

NAME _____

STREET _____

CITY _____ STATE _____

Name of your regular jobber _____ City _____

(Jobber's name must be given to secure net dealer cost shown) State _____

✓ YOUR BEST BET FOR ELECTION P. A.



"MORNING GLORY" PROJECTORS AND P. M. DRIVER UNITS

SMART SOUND MEN know every watt counts . . . that's why they choose the super-efficient "Morning Glory" Reflexed Projectors and "Dyna-Flux" Permanent Magnet Driver Units for election speaker work. The "Morning Glory" Projectors have the "sock" to cover large crowds with plenty of power in reserve. They are compact . . . easy to mount . . . ruggedly built . . . and storm-proof.
 ★ Model DR-72 Projector with six foot air column, 29" bell opening (illustrated) \$47.50 List. P. M. Driver Units at \$30.00, \$45.00, and \$50.00 List. Send for FREE CATALOG F-40 describing the new "Morning Glory" Projectors and 101 p. a. speakers and accessories.



Write Department RR-9
ATLAS SOUND CORPORATION
 1449-39th St., Brooklyn, N. Y.

A Better POWER RHEOSTAT



Selected resistance wire on insulated aluminum core.
 Heat-resistant ceramic body, cold-setting cement, and ceramic rotor insulator.
 Unique tripod-type rotor. Graphite-copper contact shoe rides third-rail ring and winding.
 25-watt rating even at one-third resistance setting. A brute for punishment.

★ For years Clarostat engineers have worked for a better power rheostat. They have examined, tested, compared, all types. Hundreds of models have been built. And now comes the end result—the new Clarostat Power Rheostat. It's different. One test will convince you that new standards have been set for such components.

Ask for MANUAL . . .
 If you do service work, ask local jobber for a Clarostat Service Manual. Ask for data on the Clarostat Power Rheostat. Or write us direct.

CLAROSTAT MFG. CO., Inc.
 285-7 N. 6th St. Brooklyn, N. Y.



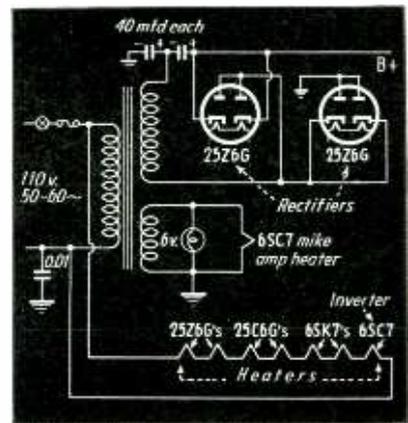
tem with the stiffness of the air in a tight back enclosure. The presence of the high frequency speaker structure in front of the eight-inch low frequency cone acts as a spreader for the radiation of the latter in its upper frequency range, where concentration around the axis otherwise would become effective. The back of the low frequency cone works into an acoustical labyrinth, which effectively extends the low frequency response, prevents resonance in the enclosing cabinet, and provides a suitable acoustic load for the diaphragm.

The response of this speaker is substantially uniform from 70 cycles to 10,000 cycles, and significant response is obtained below 65 cycles and above 15,000 cycles. The apparent efficiency of the system is from 4 to 6 db higher than that of the usual radio loud-speaker.

This speaker system is used in the Stromberg Carlson model 480M F.M. receiver and is available separately in model 35 monitor speaker. The latter includes the dividing network and field supply rectifiers built into a cabinet of modern design.

Voltage Doubler

Series filaments without a resistor and a plate power transformer are novel features of the Federal model 16SM. As the power supply circuit shows, all tube filaments except the microphone preamplifier are connected in series directly across the line. Addition of the voltages will show why. Introduction of possible hum through



series operation of the preamplifier filament is avoided by use of a six volt winding on the power transformer that also supplies the pilot bulb.

The plate supply winding on the power transformer feeds two 25Z6G rectifier tubes in a voltage doubler circuit, returning to favor with several manufacturers. Hum at 120 cycles, that would be produced with a full wave rectifier, is thus minimized and the 60 cycle hum produced by a half wave rectifier is adequately filtered by the large capacity condensers employed in the circuit.

The chassis or negative B is not "hot" since the plate transformer isolates the line.

Two microphone inputs are provided on the amplifier and push pull 25C6G's supply the speaker and magnetic cutting head. The two 6SK7's are employed in a tuned radio frequency amplifier feeding a 6SC7 combination radio detector and voltage amplifier.

American VR2

A MICROPHONE
 with
A New Idea
 and a
New Usefulness



DIRECTIONAL VARIABLE-RESPONSE DYNAMIC MICROPHONE



The above graph illustrates the average response characteristics for the various settings as indicated on the scale.

Licensed by
ELECTRICAL RESEARCH PRODUCTS, INC
 under
 United States Patents of A. T. & T. Co.
 and
 Western Electric Co., Inc.
 for use only in public address systems.

AMERICAN MICROPHONE COMPANY, INC.
 1915 S. Western Avenue BULLETIN No. 36
 PRINTED IN U.S.A. Los Angeles, California

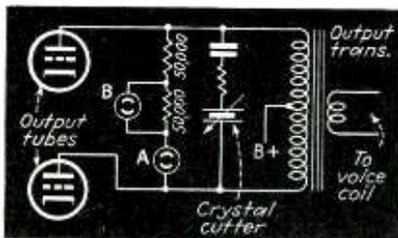
Neon Level Indicator

Low volume and high noise level or excessive volume and consequent distortion are impossible to foretell at the time of recording unless a means of judging the happy medium is employed while the record is being made.

To assist John Q. Public and his family to become control room operators Fada is supplying an eye catching indicator in their model RE 187.

In circuit diagrammed the crystal cutting head is connected to utilize the full audio voltage developed by the push pull output tubes across the primary of the transformer. The recommended a-f voltage range for the cutter head is 60 to 70 volts.

Since the neon bulb A is connected to receive the same a-f voltage, and strikes about 55 volts, it should flash constantly during recording in order to maintain the minimum volume level. While bulb A flashes the two 50,000 ohm resistors complete a signal divider circuit and neon B then becomes an indicator of excessive audio voltage on the cutting head.



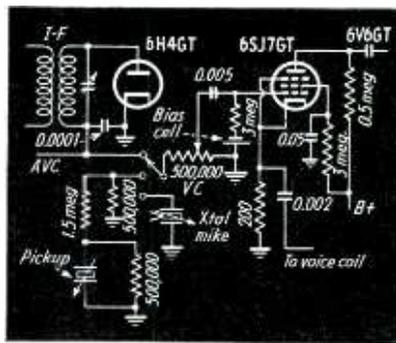
Good recording technique would keep neon bulb A flashing constantly and neon B only on extreme peaks. Isolation of the crystal head from the tube operating circuits is accomplished by the series resistor and condenser.

Audio Frequency

IN SMALL AC-DC PIP-SQUEAKS the ground side of the power circuit is often connected to the sliding arm terminal of the volume control. As a result almost half an ampere flows through control shaft and bushing to ground, causing noisy control operation.

Remove split washer on shaft and clean control parts thoroughly. Re-assemble and connect an external wire from chassis to arm terminal, thus bypassing moving shaft contact.

WHEN REPLACING COUPLING condensers try a larger capacity if the speaker can handle more lows. There will usually be quite an improvement in tone quality. This also applies to audio cathode bypasses, especially in some of the older models.



High Gain Audio

A high gain audio stage is employed in the Air-King model 5000 to obtain a proper signal level for recording.

A separate 6H4GT diode is connected as the radio second detector and supplies the avc voltage to the first detector section of a 6K8GT and the i-f 6K7GT.

The volume control is in the grid circuit of the audio 6SJ7GT, isolated from the bias cell by the condenser shown in the simplified diagram, and is switched to the various services by a five point four gang switch. In radio reception and recording position the cond. 1 picks up the audio from the diode return.

For playback the control connects to the crystal pickup through the resistor network. To silence the r-f and i-f tubes when the audio circuits are utilized alone the function selecting switch cuts out their screen voltages.

The crystal microphone connects to the same volume control for mike recording and public address use. Feedback from the voice coil winding to the unbypassed 6SJ7GT cathode is accomplished through the condenser shown. The crystal cutting head is connected across the primary of the output transformer through a .1 mfd condenser.

Although no level indicator is employed for microphone recording the manufacturer recommends operation with the volume control at maximum and the mike about six inches from the speaker's mouth at normal voice levels. Off the air recordings can be monitored from the speaker since it then operates at reduced volume, a 25 ohm resistor shunting the voice coil winding in this position.

CATHODE RESISTORS for "less breakdown" use with ac-dc rectifier tubes can be salvaged from old vibrators. Value is about fifty ohms.

"MARVELOUS, ME EYE!", SAID PROFESSOR OSWALD SQUEEGEE

PROFESSOR OSWALD Z. SQUEEGEE, Ph.D., ABC, PDQ, etc., turned an austere eye on the eager, upturned faces of his class in industrial engineering. Then, in the simple dignity becoming to a very great man, the Professor spoke:

"Listen, you dimwits," he thundered. "If there's one thing I want to pound through your thick skulls, it's simply this: The easiest way of doing any job is generally the complicated way. The hardest way is to keep plugging until you've developed the simple way. That takes time. It takes patience and—ahem—it takes brains."

Here the Professor paused, reached for the glass of water on his desk, got the ink by mistake, and sipped it calmly. Then he cleared his throat and continued:

"Some of the world's greatest inventions have been so simple that everyone wondered why Noah hadn't thought of them while he was sitting in the Ark.

"What, for instance, was more logical than putting an eraser on the end of a pencil? What was more logical than the safety razor? What was more logical than, instead of making nuts to fit the wrench, to make the monkey fit the nuts, I mean—ahem—the monkey wrench."

Fishing through the pile of notebooks, overshoes and chewing gum wrappers on his desk, Professor Squeegee found a Sprague Koolohm Resistor and held it up. "Now here is a practical example of simplified improvement," he bellowed. "One of you clucks brought this resistor in and told me how marvelous it was.

"Marvelous, me eye! The only thing marvelous is that some resistor manufacturer didn't do it sooner—that it took a condenser manufacturer to figure out how much simpler it would be to insulate the wire itself, instead of trying to insulate the resistor after it is wound without shorting a lot of turns, or without a coating that will crack or even peel like a banana. Now hand me that crowbar and cold chisel and I'll show you something real."

After 15 minutes' hard work and 3 skinned knuckles, the Professor pried the outer ceramic shell off the Koolohm. "There it is," he beamed. "a practical example of a little simple simplification that meant a whale of a big improvement. Larger wire. No danger of shorted turns. More resistance in less space. So moisture-proof a duck's

back would turn green with envy. So well designed it runs cooler than any other resistor of equal size and rating. The resistor with an automatic overload indicator, and the first . . ."

Just then the phone rang. It was the Professor's wife telling him he was already three hours late for lunch. Without even waiting to bid his class goodbye, he laid a handkerchief carefully on his head, crammed his hat into a pocket, shut the door and walked calmly out through the open window.

SPRAGUE PRODUCTS COMPANY
North Adams, Mass.

P.S.—See Koolohms at your Sprague jobber's. Free catalog on request.



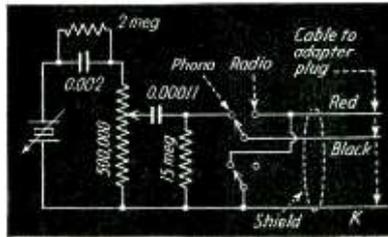
Phono Adapter

Need of internal chassis connections to record players led to wireless type players but shortcomings of wireless types has prompted Emerson to announce an adapter type player that may be used with any modern receiver that employs a 6SQ7, 6SQ7GT, 12SQ7 or 12SQ7GT for the first audio amplifier.

Model EO-388 is equipped with an A.C. motor and contains the motor switch, phono volume control, phono-radio switch and adapter. When the first audio tube is plugged into the adapter and adapter inserted into the tube socket all tube elements except the grid are connected straight through to their respective terminals at the socket.

The grid circuit is opened and led to the phono-radio switch diagrammed, the red lead connecting to grid terminal on the socket, black to the tube grid. In the radio position this switch closes the grid circuit and permits the set to be operated as before, the radio volume control unaffected.

In the record playing position the switch connects the player into the grid circuit, the .00011 condenser isolating the crystal pickup, filter and volume control from the tube bias circuit which the 15 megohm resistor



completes. The volume control on the player is now used and the radio control cannot affect the phono volume.

Radio Repair Recipes

By Murl E. Beauchamp

Powdered rosin makes an excellent non-slip dial compound but application is usually pretty messy. A saturated solution of rosin dissolved in alcohol will do the job nicely, with neatness and ease of application. This solution also makes an excellent, safe soldering flux.

Powdered graphite mixed thoroughly with petroleum jelly and applied sparingly makes a fine lubricant for tuning condensers and volume control

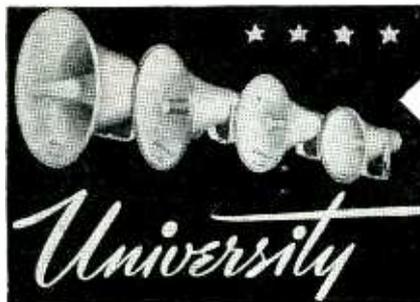
shafts. The graphite acts as a conductor and keeps the unit free from noise caused by poorly grounded rotors.

Try "Energine" on the next noisy volume control, apply to bushing and moving contacts. Recommended for cleaning up all other parts with movable contacts before lubricating.

A few drops of water applied to a warped speaker cone will often re-warpage the cone back into place without recentering the cone. Apply opposite the present warped portion, and when thoroughly dry center if then necessary.

When removing units from sealing compound it will often be found that freezing the unit in a refrigerator and then breaking the compound away will be neater and easier than melting. The chipped pieces of compound may be melted and repoured, giving a "factory" appearance to the job.

Edges of holes accidentally punched in speaker cones vibrate independent of the cone movement and sound like speaker rattle. Wet the surface around the hole edge with flexible collodion or the wife's nail polish and apply a tissue paper patch. Wet tissue with more liquid, it soaks through tissue but not regular paper, and when dry the cone will be firm but flexible.



Don't Let the Election Campaign Catch You Napping

University's policy of Guaranteeing Loudspeakers has created increased demand for Election Sound as well as Standard Sound Installations. Jobbers: Check your supply of University U-6-40 catalogues. You will need them for election sound sales.

University

IT PAYS TO USE THE BEST

University Loudspeakers have proven their superiority by the enormous popularity they have gained in every section of the country. Sound installations with University Reflexed Non-Resonant Loudspeakers are your assurance of future sales based on good will. Guarantee your sound reputation with University Loudspeakers. UNIVERSITY LABORATORIES, 195 Chrystie St. N. Y. C.



HAVE YOU EVER SEEN ALL THE CLIPS THAT MUELLER OFFERS?



Special Clips for Every Use
Solid Copper—Insulated Clips

Send for Free Samples & Catalog 701

MUELLER ELECTRIC CO., 1584 E. 31st, Cleveland, O.

For
NET PROFITS
Vote **SENTINEL!**

Sentinel's the line that has an unexcelled record for QUALITY and low service costs; prices and values that wilt all sales resistance; mass advertising that pulls prospects straight to your store. Everything it takes to give you top profits on every set you sell. Get on the band-wagon now—vote the straight Sentinel ticket! Write for Details TODAY!

SENTINEL RADIO CORPORATION
2020 Ridge Ave., Dept. RR-9, Evanston, Ill.

Sentinel

Quality Radio Since 1920

New Tubes

5W4GT—High vacuum full wave rectifier in T-9 bulb. Characteristics same as 5W4 metal. *RCA*

1LD5—Diode audio pentode for battery operation at reduced B voltages. Similar in application to the 1LH4 except that amplifier section is pentode instead of triode for greater gain. *Sylvania*

14H7—Single-ended triple grid semi-remote cut-off amplifier (wow!) similar to 7H7 except for filament voltage. Particularly adapted for i-f

and r-f stages in television and FM receivers. *Sylvania*

CK505—Miniature pentode for use as voltage amplifier where ultra compactness is desired. Has special five prong miniature base. Since filament voltage is only .625 volts, it is recommended that two be operated in series from a single flashlight cell, with total drain of 30 ma. A pair in a resistance coupled amplifier will have a voltage gain of about 225 at 30 volts B. Total plate and screen current then amounts to only .054 milliamperere. *Raytheon*

CK505X—Characteristics same as CK505 but has tinned copper leads from bulb for direct connection into circuits. An attachable octal base is supplied for practical retesting. *Raytheon*

VR75/30—Voltage regulator tube of the cold-cathode, glow discharge type. Operating voltage approximately 75 volts and maximum operating current of 30 ma. Base fits a standard octal socket and pins 3 and 7 are connected by a jumper inside the base. Jumper may be used as a switch to open the power line circuit when the tube is removed from its socket. *RCA*

Easy, Low-Cost Home Recording



Simplified: To cut records, place cutting arm over record blank. To playback, place pickup on record. It's just as easy as that.

GETTING new business and plenty of it is simple with the new General Industries Home Recording Unit. Its simplicity, low cost and fine performance make it a joy eagerly welcomed in countless homes. Just as well liked by business executives—lawyers—musicians—drama, music and public-speaking teachers.

Up-to-the-minute pickup and cutting arms. Special design, powerful rim-drive motor. Weighted turntable with retractable record-driving pin. Complete unit, mounted ready for easy installation. Made by the world's largest phonograph motor manufacturer. Order one today for testing.



New, Light "LX" Rim-Drive GI Motor

Lower in cost, lighter in weight

and more compact in design. Amply powerful. Induction type. Silent. Fan-cooled—no overheating in small, enclosed cases or cabinets.

Send NOW . . . for new free catalog and prices

THE GENERAL INDUSTRIES CO.
4037 TAYLOR ST. ELYRIA, OHIO

MIKE SAYS—

ED. NOTE: One of our persistent correspondents whom we'll call Mike, keeps sending in notes calling our attention to various angles of the radio service business. Although we don't always agree with him, we have finally decided to give him a chance in print. He DOES get around.

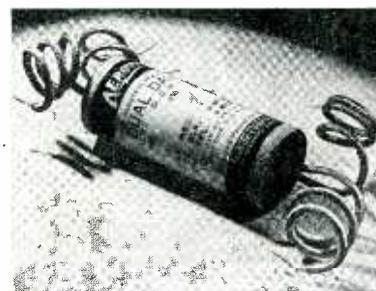
"I saw a guy sweat to fix an auto radio yesterday while the customer waited. When he got done, the bird gave him three dollars on account that's all he had and promised to pay the rest next week. After he left this guy discovered he didn't know him and forgot to get his address in the rush. The parts cost two-eighty-five. What do you bet? . . . the boys can get the Howard Radio home recorder manual if they drop a postcard to F. Westaway, their generous service manager . . . why don't you write something about what radios is? A bird showed me an old Mickey Mouse last week and complained he had an awful time linin' it up cause the i-fs ain't got no trimmers. Wybmadiity? He went to school too."

"I hear one mfr. is makin' a radio without no tuning condenser gang, yet it even bandspreads shortwaves. When you turn knob metal rods poke into coils . . . now we're gettin' color television, well, well. Still waitin' for me black and white."

So! that's why RADIART VIBRATORS are Guaranteed 1 YEAR

EXTRA LARGE POINTS
MICA STACK
RIVETED NOT WELDED
CLOSED FRAME PROTECTION
HAVE YOU YOUR RADIART VIBRATOR MANUAL?

THE RADIART CORP.
CLEVELAND · OHIO



DUAL DANDEES . . . with four leads

- To those already sufficient reasons—compactness, convenience, economy—Aerovox now adds the widest choice of values and combinations in rounding out its line of midget electrolytics. Latest additions are the Dual Dandees (with separate sections and four leads (Series PRS-B), and with concentrically-wound sections with three leads (Series PRS-A), 25 to 450 v. D.C.W. 8-8 to 20-20 mfd.
- Ask Your Jobber . . .
- He can show you these latest midget electrolytics. Try a few. Ask for latest catalog—or write us direct.

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

TRICKS of the TRADE

BELMONT 420

Whistles . . . replace resistor in cathode of 38 tube. Changes greatly in value.

CROSLY 566

Motorboats as volume is raised . . . eliminate and improve tone with 25 mfd. 25 volt electrolytic. Condenser positive lead to B minus terminal in chassis, condenser negative to chassis.

DELCO 1936 AUTO RADIOS

Loud intermittent hum . . . rivets holding electrolytic clamp to chassis make poor contact. Bypass rivets by soldering a piece of copper braid from clamp to chassis.

FARNSWORTH AT21

Crackles . . . electrolytic action between filter condensers and clamps securing them. Remove clamps, condensers are self supporting.

GENERAL ELECTRIC H639

Intermittent cut-out . . . coupling condenser from plate of 6J5 to grid of 25L6GT opens intermittently.

MANTOLA 5Z

Low volume and distortion . . . inside lead of speaker field winding has only enamel insulation, grounds and shorts out bias system. Remove field and insulate lead.

PHILCO 60 and 66

Oscillation . . . separate grid and plate leads of i-f transformer.

PHILCO 89

Intermittent oscillation . . . change 15M ohm oscillator cathode resistor to 10M ohms.

PHILCO C-1708

Low volume . . . check Skyway antenna for leak to car chassis. Rain may short both antenna and lead in.

PILOT 1452

No oomph and poor tone . . . two meg volume control has increased to 10 megs.

RCA 121,122

Two point tuning, distorted between points . . . check i-f grid filter condenser for leakage.

STROMBERG CARLSON 335

Intermittent cutout or volume drop . . . dual .0001 mfd mica condenser, No. 35 and 36, bypassing ave line should be replaced with individual units.

ZENITH PORTABLE 6G500

Dead . . . open .01 coupling condenser from plate of 1LH4 to grid of 1LB4.

ZENITH 7A02-7A04

Dead . . . 480 mmfd. condenser on automatic grounded against automatic frame or latch bar.

Oscillation . . . push leads of wave trap close to chassis, keeping them away from antenna coil.

TELEVISION

RCA TRK 9

Complete shading reversal of picture reproduction . . . resistor R57, the plate load of the 1852 video amplifier, changes from a normal value of 3300 ohms to 100 ohms. Replace with a two watt 3500 ohm metalized resistor. Do not use an inductive resistor.



DYNAMOTORS

Governmental and commercial radio engineers all agree that Pincor Dynamotors take the grief out of "B" power supply problems. They are built properly to give thousands of hours of smooth, quiet, dependable operation under all conditions. Types and capacities to meet any requirements for aircraft, marine and broadcast service, police units, sound systems, auto radios, etc. 5 to 850 watts. Input, 6 to 110 volts; output, up to 1750 volts. Mail coupon for complete information.

PIONEER GEN-E-MOTOR CORPORATION
Chicago, Ill.

Export Address: 25 Warren St., N. Y., N. Y.
Cable: Simontrice, New York



PIONEER GEN-E-MOTOR CORPORATION
Dept. R-11, 466 W. Superior St., Chicago, Ill.
Please send information on Pincor Dynamotors, Motor Generators and special power supply units.

Name
Address
City State
 Also send me NEW Rotary Converter Catalog.



RADIO CHEMICALS AND PRODUCTS

SERVICEMEN'S CHEMICAL KIT

Here's what you've been looking for,—a portable case of all Radio Chemical necessities to carry with you. Kit includes 8 bottles. —Service Cement—Rubber Drive Cement—Carbon-X—Grafoline—Scratch Remover—Non-Slip Cmpd.—Dial Oil—and Contact Cleaner.
No. 999—Kit. List Price \$1.75

NEW! LUBE-REX

STOPS NOISE—PREVENTS CORROSION

New contact lubricant that really works and lasts long. The only approved lubricant for mystery controls, attenuators, and contacts, that will eliminate noise and prevent corrosion.
No. 1209—List Price \$35 Sold at all leading parts jobbers
Ask for our new 32 page No. 141 Catalog listing over 500 Products.



GENERAL CEMENT MFG. CO.

ROCKFORD, ILL., U.S.A.

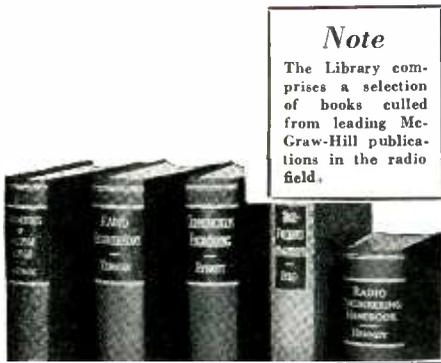
KEN-RAD




DEPENDABLE RADIO TUBES

Ken-Rad radio tubes are used by many radio set manufacturers as original equipment—proving their dependability in service.

Ken-Rad Tube & Lamp Corp.
Owensboro, Ky.



Note
The Library comprises a selection of books culled from leading McGraw-Hill publications in the radio field.

McGraw-Hill RADIO ENGINEERING LIBRARY

— especially selected by radio specialists of McGraw-Hill publications

— to give most complete, dependable coverage of facts needed by all whose fields are grounded on radio fundamentals,

— available at a special price and terms

These books cover circuit phenomena, tube theory, networks, measurements, and other subjects—give specialized treatment of all fields of practical design and application. They are books of recognized position in the literature—books you will refer to and be referred to often. If you are a researcher or experimenter—if your interest in radio is deep-set and based on a real desire to go further in this field—you want these books for the help they give in hundreds of problems throughout the whole field of radio engineering.

5 volumes 3319 pages, 2298 illustrations

1. Eastman's FUNDAMENTALS OF VACUUM TUBES
2. Terman's RADIO ENGINEERING
3. Everitt's COMMUNICATION ENGINEERING
4. Hund's HIGH-FREQUENCY MEASUREMENTS
5. Henney's RADIO ENGINEERING HANDBOOK

Special Low Price and Easy Terms

Bought singly, the five volumes comprising this library would cost you more. Under this offer you save money and, in addition, have the privilege of paying in easy installments beginning with \$2.50, 10 days after receipt of the books, and \$3.00 monthly thereafter. Already these books are recognized as standard works that you are bound to require sooner or later. Take advantage of these convenient terms to add them to your library now.

SEND THIS ON APPROVAL COUPON

.....

McGraw-Hill Book Co., Inc.
330 W. 42nd St., New York, N. Y.

Send me the McGraw-Hill Radio Engineering Library 5 vols., for 10 days' examination on approval. In 10 days I will send \$2.50, plus few cents postage, and \$3.00 monthly till \$23.50 is paid, or return books post-paid. (We pay postage on orders accompanied by remittance of first installment.)

Name

Address

City and State

Position

Company R.R. 9-40

(Books sent on approval in U. S. and Canada only.)

.....

ELECTION SOUND

(Continued from page 41)

audio power will substantially reduce battery drain.

It is necessary, too, to select microphones that are known for their rugged qualities. Election campaign work is tough on microphones, but there are a number of microphones available which will withstand strenuous shock and strain.

Reaching Prospects

If the sound operator is not generally known in his vicinity for sound truck work, he must make himself known. Letters to local political organizations on a "p. a. letterhead" are recommended to serve as an entree. These letters should go to the chairman of the speaker's committee and should be followed by personal calls.

A demonstration of the equipment you have available is your best selling argument. Naturally, if you have the proper equipment, better than your competitor's, you have a better chance of landing the contract.

In most cases, you are known by your past accomplishment in sound work. References to past users of your equipment are thus very valuable in the winning of contracts.

SEARCHLIGHT SECTION

Address copy to the
Departmental Advertising Staff

Radio and Television Retailing
330 West 42nd St., New York City

FREE RADIO CATALOG

ALL RADIO NEEDS
Your nationally known favorites in sets, parts and supplies, public address systems, testers and kits, etc., at lowest possible prices. Write for this big book.

BURSTEIN-APPLEBEE COMPANY
1012-14 MCGEE ST., KANSAS CITY, MO.

REPRESENTATIVES WANTED

Manufacturer of frequency-modulation receivers has interesting proposition for manufacturers' representatives in Chicago, New York State (East of Buffalo) and Columbus, Ohio. Send qualifications to Box RW-143, Radio and Television Retailing, 330 W. 42nd St., New York, N. Y.

**JUST ALLIED'S 1941
OUT! RADIO CATALOG**

FOR EVERYTHING IN RADIO

Get ALLIED'S FREE 1941 Catalog—the biggest ever. 212 PAGES—with special sections for Dealers, Servicemen, and Sound Men. Radio's greatest Buying Guide! Nothing like it for completeness. New P.A. Section—for all Sound Systems—7 to 15 watts—for all applications, easy Time Payment Plan—15 Day Trial Offer—Servicemen—all the lowest prices! Equipment, new tools and new Test Equipment, more than 15,000 service racks. More than 15,000 quality replacement parts. New Bargain Section—real "b u y s" in brand-new merchandise! 83 New Radio Models—wonderful radio "leaders" and profit-builders—all types—for every purpose. It will pay you to keep your 1941 ALLIED Catalog handy for Everything in Radio at Lowest Prices!

FREE

ALLIED RADIO CORP.
833 W. Jackson Blvd.
Chicago, Ill. Dept. 18-J-1

Rush me your FREE new 212 Page 1941 Radio Catalog

Name

Address

City..... State.....



When the store-front flashes
RADIO and other
modern home equipment . . .
it's a sign of the

LIVEST DEALER IN TOWN!

He likes RADIO RETAILING best
because it helps him most in
selling everything electrical.

INDEX TO ADVERTISERS

September, 1940

	Page
Aerovox Corp.	69
Alliance Mfg. Co.	59
Allied Radio Corp.	71
American Microphone Co.	66
Atlas Sound Corp.	66
Belden Mfg. Co.	52
Burstein-Applebee Co.	71
Clarostat Mfg. Co., Inc.	66
Columbia Recording Corp.	8
Continental Radio & Television Corp.	30, 31
Crosley Corp., The.	44
Emerson Radio & Phonograph Corp.	9
Erwood Sound Equipment Co.	59
Fada Radio & Electric Co., Inc.	3
Farnsworth Television & Radio Corp.	4, 5
Galvin Mfg. Corp.	Back Cover
Garrard Sales Corp.	60
General Cement Co.	70
General Electric Co.	12
General Industries Co., The.	69
Greenlee Tool Co.	60
Hygrade-Sylvania Corp.	51
International Resistance Corp.	65
Jensen Radio Mfg. Co.	13
Kato Engineering Co.	54
Ken-Rad Tube & Lamp Corp.	70
Magnavox Co., Ltd.	11
Mallory & Co., Inc., P. R. Inside Front Cover, Insert	40, 41
McGraw-Hill Book Co., Inc.	71
Meissner Mfg. Co.	53
Mueller Electric Co.	68
National Union Radio Corp.	57
Noblitt-Sparks Industries Inc.	47
Ohmite Mfg. Co.	61
Oxford-Tartak Radio Corp.	71
Philco Radio & Television Corp.	36, 37
Pioneer Gen-E-Motor Corp.	70
Presto Recording Corp.	58
Quam-Nichols Co.	61
Radiart Corp.	69
Radio City Products Co.	54
Radio Corp. of America.	49
Raytheon Production Corp.	7
RCA Manufacturing Co.	6, 15
Readrite Meter Works.	50
Rider, John F., Publisher, Inc.	54
Rock-Ola Mfg. Corp.	43
Seeburg Corp., J. P.	Inside Back Cover
Sentinel Radio Corp.	68
Sprague Products Co.	67
Stewart-Warner Corp.	14
Stromberg-Carlson Telephone Mfg. Co.	2
Supreme Instruments Corp.	48
Transformer Corp. of America.	60
Triplett Electrical Instrument Co.	62
Turner Co., The.	61
University Laboratories	68
Utah Radio Products Co.	10
Westinghouse Electric Supply Co.	16
Wilcox-Gay Corp.	54

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

McGraw-Hill Publishing Company, Inc.
 Publication Office: 99-129 North Broadway, Albany, N. Y. Editorial and Executive Offices: 330 West 42nd Street, New York, N. Y.

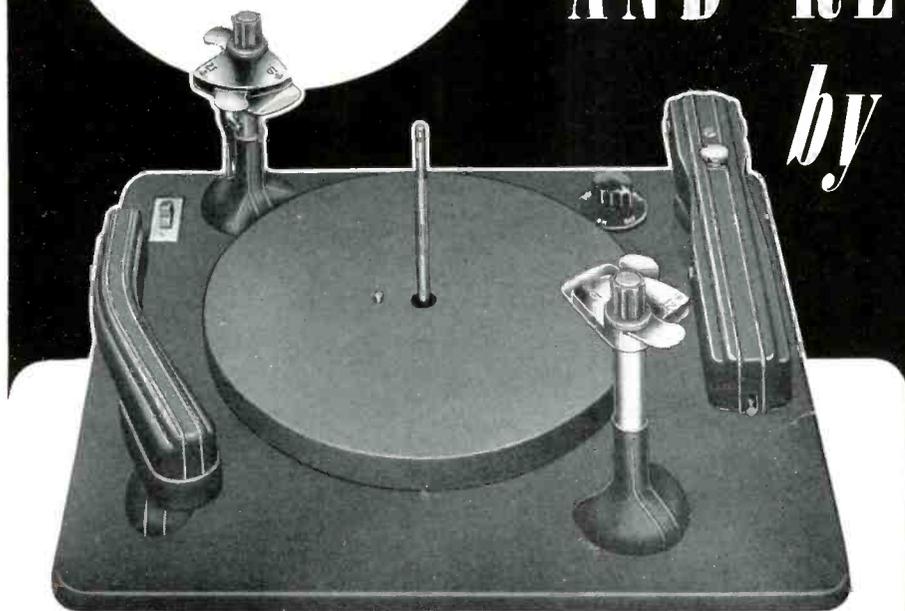
DANCE BAND DATA

(Continued from page 22)

BAND	THEME SONG	LEADER PLAYS	VOCALISTS	NO. IN BAND	RECORDS
HEIDT, HORACE	I'll Love You in My Dreams	.....	Larry Cotton, Fred Lowery, Ruth Davies	.....	Co, Br
HERBECK, RAY	(Original)	Sax	Betty Bensen, Ray Olsen	12	Ok
HERMAN, WOODY	Blue Prelude	Clar	Dillagene, W. Her- man, Carol Kay	16	De
HILL, TINY	Five Feet Two	Piano	Tiny Hill	12	Ok
HIMBER, RICHARD	It Isn't Fair	.....	.....	.....	Vi, Ro
HINES, EARL	Deep Forest	Piano	Walter Fuller, Billy Eckstein, Leroy Harris	15	Bb, Ok, De
HOLDEN, LOU	.....	.....	.....	.....	De
IRVING, REX	.....	Piano	Art Gentry	7	Ro, Va
JAMES, HARRY	Ciribiribin	Trum	Dick Haymes, Jack Palmer, Fran Heines	16	Br, Va
JURGEN, DICK	Day Dreams Come True at Night	.....	Harry Cool	.....	Ok, De
KASSEL, ART	Hell's Bells	.....	Marion Holmes, Danny Bridge, Harvey Crawford, Kassel Trio	12	Bb
KAVELIN, AL	Love is Gone	Piano	.....	.....	Ok, De
KAYE, SAMMY	Swing & Sway	.....	Clyde Burke, Tommy Ryan, 3 Kaydets	14	Vi, Ok, Va
KEMP, IAL	How I Miss You	Sax	Janet Blair, Bob Allen	14	Vi, Ok, Br
KING, WAYNE	The Waltz You Saved for Me	Sax	Wayne King	12	Vi, Ok
KINNEY, RAY	Across the Sea	Uke	Aloha Maids, Henry Paul, Ray Kinney	9	De
KIRK, ANDY	Until the Real Thing Comes Along	.....	Pay Terrel, June Richmond	13	De
KRUPA, GENE	Apurksody	Drums	Irene Daye, Howard Du Lany	14	Bb, Co
KYSER, KAY	Thinking of You	.....	Ginny Simms, Harry Babbitt, Sully Mason	14	Co, Br
LIGHT, ENOCH	You're the Only Star in My Blue Heaven	.....	Geo. Hines, Peggy Starr	.....	Bb, Ok
LOMBARDO, GUY	Auld Lang Syne	Violin	Carmen Lombardo, Larry Owen, Fred Higman	14	Vi, Bb, Ok, Br, De
LONG, JOHNNY	Nola	Piano	Sonny Skyler, Penny Parker	10	De
LOPEZ, VINCENT	.....	.....	.....	13	Bb, Ok, Br
LUNCEFORD, JIMMY	Jazznocracy	.....	Jimmy Young, Willie Smith	16	Vi, Bb, Co, Ok, De
LYMAN, ABE	Calif. Here I Come	Drums	Frank Parrish, Eddie Holly	16	Bb, Br, De
MADRIGUERA, ENRIC	Adios	Violin	Patricia Gilmore, Hansonettes	13	Co, Ok, Br
MARTIN, FREDDY	By Low Bye	Piano	Eddie Stone, Clyde Rogers	14	Bb, Ok, Br
MASTERS, FRANKIE	Lulla-Bye Scatterbrain	.....	Marion Frances, Frankie Masters	11	Ok
MESSNER, JOHNNY	Can't We Be Friends	Sax	Jeanne D'Arcy, J. Messner, "Shorty" Schipper, 3 Jacks	11	Bb, Ok, Va
MILLER, GLENN	Moonlight Serenade	Trom	Marion Hutton, Ray Eberle, Tex Beneke, Jack Lathrop	17	Bb, Co, Ok, De
NELSON, OZZIE	Loyal Sons of Rutgers	Sax	Rose Ann Stevens, O. Nelson	14	Bb, Br
NICHOLS, RED	(Original)	Trum	Red Nichols	13	Ok
NOBLE, RAY	The Very Thought of You	Piano	Larry Stewart, Mary Ann Warren, Don Bonnee	16	Vi, Co, Br
OSBORNE, WILL	The Gentleman Awaits	.....	Dick Rogers, W. Osborne	15	De, Va
PASTOR, TONY	.....	Sax	Tony Pastor, Kay Foster	16	Bb
POLLACK, BEN	Song of the Islands	.....	Armide Whipple, Bobby Clark	.....	Br, De
POWELL, TED	Blue Sentimental Mood	Guitar	Ruth Gaylor, Jimmy Blair	13	De
PRIMA, LOUIS	Way Down Yonder in New Orleans	Trum	Lillian Carroll, L. Prima, Frank Frederrico	15	Bb, Ok, De, Va
REYNOLDS, TOMMY	Pipe Dreams	Clar	Sally Richards	13	Ok
SAVITT, JAN	It's A Wonderful World	Violin	Bon Bon, Allen De Witt	15	Bb, De
SCOTT, RAYMOND	Pretty Little Petticoat	Piano	Nan Wynn	13	Co, Br
SHAW, ARTIE	Nightmare Music	Clar	.....	.....	Vi, Bb, Ok
SHILKRET, JACK	.....	.....	.....	13	Va
SINATRA, RAY	A Young Man Sings	.....	Tony Martin, Shirley Ross, Mary Martin	.....	De
STABLE, DICK	.....	Sax	Shirley Gay, Bill Mayo	.....	Ok, De
STRAETER, TED	Tea for Two	Piano	Dorothy Rochelle	13	Co
SULLIVAN, JOE	Pom Pom	Piano	Pete Turner	8	Ok
TEAGARDEN, JACK	I've Got a Right to Sing the Blues	Trom	David Allen, Marianne, J. Teagarden	16	Co, Br, Va
THOMPSON, LANG	You Darling	Accor	Peggy Nolan, L. Thompson, Chuck Eaton	11	Va
TIME, TOMMY TUCKER	I Love You	.....	Al Knapp, Amy Arnell	.....	Ok, Va
TROTTER, JOHN SCOTT	.....	.....	.....	.....	De
TUCKER, ORRIN	Drifting & Dreaming	.....	Bing Crosby, Bonnie Baker, O. Tucker	14	Co, Ok
VALLEE, RUDY	My Time is Your Time	Sax	R. Vallee	.....	Vi, Bb, De, Va
VENUTI, JOE	.....	Violin	Kay Stars	11	Bb, De
WHITEMAN, PAUL	Rhapsody in Blue	Violin	Modernaires, Joan Edwards	17	Vi, Co, De
YOUNG, VICTOR	Sweet Sue	.....	Ken Darby Singers	13	Br, De

Meeting all requirements of the nation's leading manufacturers...

Automatic RECORD CHANGERS AND RECORDERS by SEEBURG



SEEBURG RECORD-O-MATIC

Designed to maintain greatest consumer acceptance for your products. Record-O-Matic has the simplest automatic changer mechanism. Handles fourteen 10" or ten 12" records, gravity type. Is compact—14" long, 14" wide, 3" deep. No screws or brackets on top surface. Cutting head assembly contains no steel stampings—all parts cast for rigidity; hardened cone bearings at all essential points; lead screw has support bearings at each end; larger main bearing and ball thrust to carry weighted turntable; 1¾ oz. pressure crystal pickup in aluminum tone arm gives long record life; crystal or magnetic cutting heads; cutter has plunger type, automatic engagement with lead screw; separate switch for manual play-back frees tone arm from automatic mechanism—any size record may be played manually.

PRECISION MADE

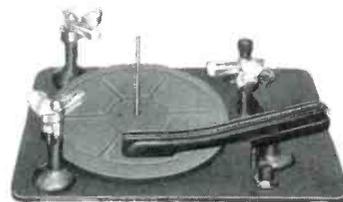
Seeburg

J. P. SEEBURG CORPORATION 1500 DAYTON STREET CHICAGO



SEEBURG RECORD CHANGERS

available in models for all practical purposes, feature utmost in quality and dependable performance. Model J (above) handles fourteen 10" or ten 12" records, gravity type. Model H (below) handles fifteen mixed 10" and 12" records. Complete information on all Seeburg Record Changers will be sent on request.



FINE MUSICAL INSTRUMENTS
SINCE 1902

MORE
Motorola
BEST BUYS!

**IN AUTOMATIC
 PHONO-RADIOS**



The country's gone ga-ga about recorded music and record manufacturers have cut their prices so that all can afford their product. Now YOU can cash in on this recorded music craze with Motorola Automatic Phonograph-Radio Combinations at prices all can afford.

TABLE MODEL 58FRC

Nothing else like it in its price class. For small apartments it's perfect, and for performance you'll travel far and listen long for its equal. By every test for supreme radio performance it's the 1941 WINNER! Changes eight 10" or seven 12" records—crystal pick-up—5 tubes—large speaker for fine tone—tone control—"Aero-Vane" Loop.

\$49⁹⁵*

CONSOLE MODEL 62FI

COMPARE THESE 8 BIG FEATURES

Values in Motorola are *bigger* because the music plays *better* • Automatic Record Changer changes eight 10" or seven 12" Records • Crystal Pick-Up • Automatic Record "Reject" • 6 Push-Button Tuning • 2 Bands—3-Gang Condensers • Continuously Variable Tone Control • 6 Tubes including Rectifier—10" Speaker • Aero-Vane Loop Aerial

\$79⁹⁵*

**FULL COLOR PAGES IN
 NATIONAL MAGAZINES**

This is a Motorola Year! Motorola will be the best advertised radio this season! Saturday Evening Post . . . LIFE . . . Movie and Radio Guide . . . and dozens of big space National Newspaper Campaigns running all over America! For easier sales . . . better profits . . . get the Motorola story NOW! Write or Wire!



* Prices Slightly Higher in South and West.

GALVIN MFG. CORPORATION

4545 AUGUSTA BLVD. . . . CHICAGO